

# **SELF ASSESSMENT REPORT (SAR)**

**For**

## **Accreditation of Bachelor of Technology (B.Tech.) in Civil Engineering**

**By**

### **National Board of Accreditation**

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**CIVIL ENGINEERING DEPARTMENT  
NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
Hazratbal, Srinagar – 190 006, J&K (India)**

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**PART A: Institutional Information**

- 1. Name and Address of the Institution:** National Institute of Technology Srinagar  
(NIT Srinagar)

<b>Address</b>	<b>City: Srinagar</b>
State:- Jammu & Kashmir	Pin Code:- 190006
Website:- www.nitsri.ac.in	E-mail:- admin_csc@nitsri.ac.in
STD Code:- 0194	Phone No:- 2422032
Fax STD Code:- 0194	Fax:- 242047

*Table A.1*

- 2. Name and Address of the Affiliating University:** None  
**3. Year of establishment of the Institution:** 1960  
**4. Type of the Institution:** Institute of National Importance  
**5. Ownership Status:** Central Government  
**Provide Details:** Appendix 1 of part A

- 6. Other Academic Institutions of the Trust/Society/Company etc., if any:**

Name of the Institution(s)	Year of Establishment	Programs of Study	Location

*Table A.6*

- 7. Details of all the programs being offered by the institution under consideration:**

S. No.	Programme Name	Name of Department	Year of Start	Intake	Increase In Intake,	Year of increase	AICTE Approval	Accreditation Status
1	B.Tech, Chemical Engineering	Chemical Engineering	1963	27	77	2009	Senate	Accredited by NBA F. NO NBA/ACCR/10 6/2002 May 19 2009
2	M.Tech, Chemical Engineering		2015	18				
3	Ph.D., Chemical Engineering		2008	05	13	2015		
4	B.Tech Civil Engineering	Civil Engineering	1960	50	123	2009		
5	M.Tech,		2014	18				

Part A

	Transportation,						NBA/ ACCR/10 6/2002 May 19 2009
6	M.Tech, Structure,		2004	25			
7	M.Tech, Geotechnical		2014	17			
8	M.Tech, Water resource Engineering		1986	15			
9	Ph.D., Civil Engineering		2006	02	11	2015	
10	B.Tech, Computer science Engineering	Computer science Engineering	2007	62			
11	Ph.D., Computer science Engineering		2010	01	04	2015	
12	B.Tech, Electrical Engineering	Electrical Engineering	1960	50	77	2009	Accredited by NBA F. NO NBA/ ACCR/10 6/2002 May 19 2009
13	M.Tech Electrical power and energy system		2013	26			
14	Ph.D., Electrical Engineering		2004	01	18	2015	
15	B.Tech, Electronics and Communication Engineering	Electronics and Communicati on Engineering	1984	50	77	2009	Accredited by NBA F. NO NBA/ ACCR/10 6/2002 May 19 2009
16	M.Tech, Communication and information technology		2004	25			
17	M.Tech, Microelectronics		2015	13			
18	Ph.D., Electronics and Communication Engineering		2005	01	14	2015	
19	B.Tech, Mechanical Engineering	Mechanical Engineering	1960	50	77	2009	Accredited by NBA F. NO NBA/ ACCR/10
20	M.Tech, Mechanical		2004	25			

	system design						6/2002 May 19 2009
21	M.Tech, Industrial tribology and maintenance		2013	26			
22	Ph.D., Mechanical Engineering		2008	10	28	2015	
23	B.Tech, Metallurgical and Materials Engineering	Metallurgical and Materials Engineering	1960	15	77	2009	Accredited by NBA F. NO NBA/ ACCR/10 6/2002 May 19 2009
24	Ph.D., Metallurgical and Materials Engineering		2008	05	09	2015	
25	B.Tech, Information Technology	Information Technology	2007	62			
26	Ph.D., Information Technology		2018	06			
27	MSC, Physics	Physics	2015	25			
28	Ph.D., Physics		2004	02	14	2015	
29	Ph.D., Chemistry	Chemistry	2005	01	11	2015	
30	Ph.D., Humanities	Humanities	2004	02	04	2015	
31	Ph.D., Math's	Math's	2006	02	8	2015	

Table A.7

### 8. Programs to be considered for Accreditation vide this application

S. No.	Program Name
1	Chemical Engineering
2	Civil Engineering
3	Electrical Engineering
4	Electronics and Communication Engineering,
5	Mechanical Engineering

Table A.8

**9. Total number of employees:****A. Regular Employees (Faculty and Staff):**

Items		2017-18		2016-17		2015-16	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	54	54	54	54	54	54
	F	16	16	16	16	16	16
Faculty in Maths, Science & Humanities teaching in engineering Programs	M	11	11	11	11	11	11
	F	5	5	5	5	5	5
Non-teaching staff	M	227	227	227	222	227	227
	F	26	26	26	26	26	26

*Table A.9a***B. Contractual Staff Employees (Faculty and Staff): (Not covered in Table A):**

Items		2017-18		2016-17		2015-16	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	40	40	40	44	40	37
	F	22	22	22	18	22	19
Faculty in Maths, Science & Humanities teaching in engineering Programs	M	9	9	9	10	9	3
	F	3	3	3	1	3	3
Non-teaching staff	M	54	54	54	52	54	56
	F	11	11	11	9	11	7

*Table A.9.b***10. Total number of Engineering Students**

Item	2017-18	2016-17	2015-16
Total no. of boys	2383	2185	2280
Total no. of girls	282	292	347
Total no. of students	2665	2477	2623

*Table A.10***11. Vision of the Institution:**

To establish a unique identity of a pioneer technical Institute for NIT Srinagar by developing a high quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region in particular keeping in view global challenges.

**12. Mission of the Institution:**

(1) The broad mission of NIT Srinagar is to create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellencenurture with international standards.

(2) Technically educated and broadly talented engineers, future innovators and entrepreneurs, graduate with understanding the needs and the problems of the industry, the society, the state, and the nation.

(3) We promise to inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineers.

**13. Contact Information of the Head of the Institution and NBA coordinator, if designated:**

**Head of the Institution**

Name:- Dr. Rakesh Sehgal

Designation:- Director

Status of Appointment:- By MHRD

**Contact details of Head of the Institution**

STD Code:- 0194

Telephone No:- 0782677

Mobile:- 09419433770, 9418058442

E-mail:- director@nitsri.net

Fax STD Code:- 0194

Fax No:- 242047

**NBA coordinator**

Name:- Dr. G. A. Harmain

Designation:- Professor

STD Code:- 0194

Telephone No:- 0782677

Mobile:- 9419018804

E-mail:- gharmain@nitsri.net

Appendix 1 of part A

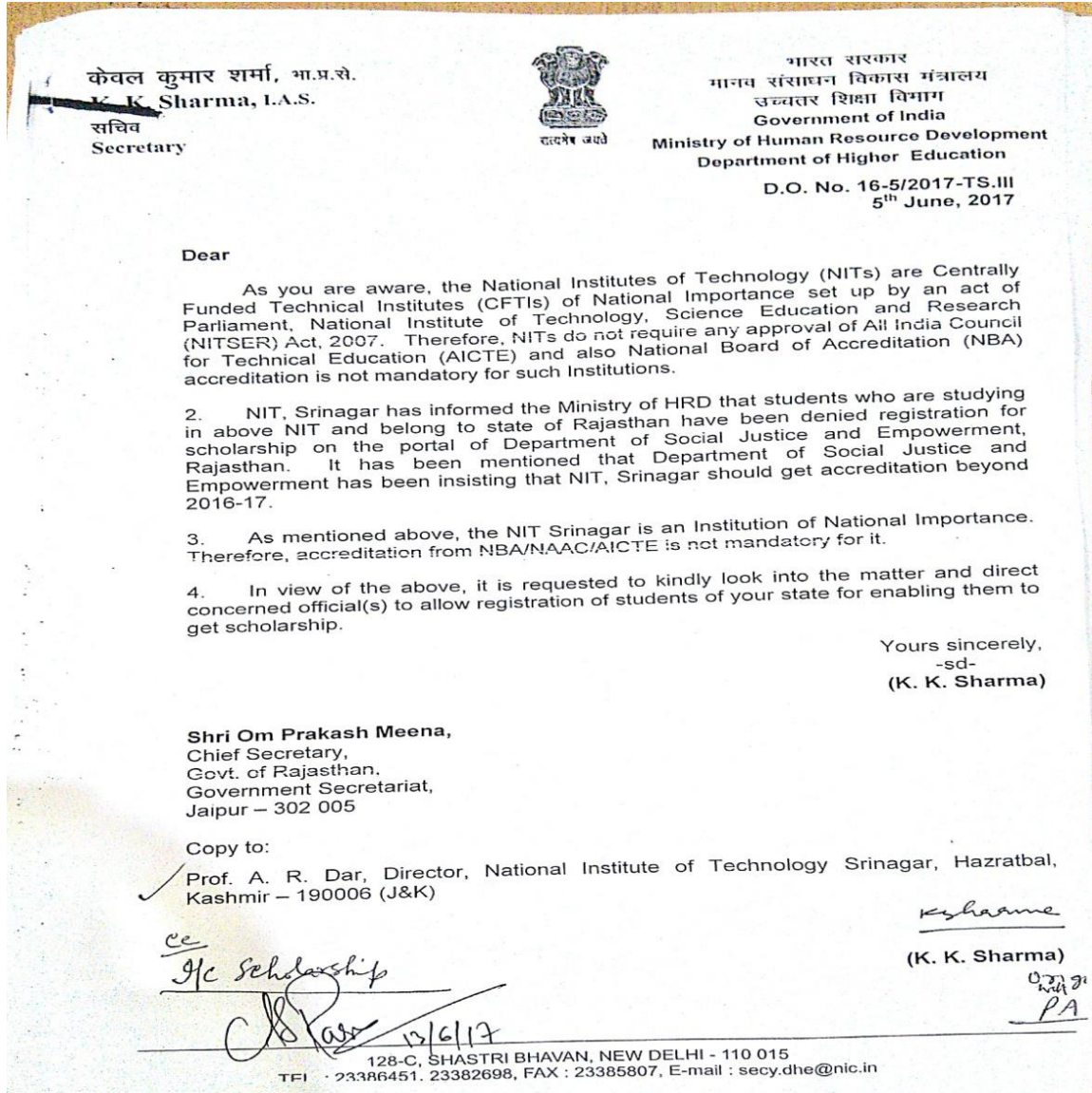


Figure A.1a



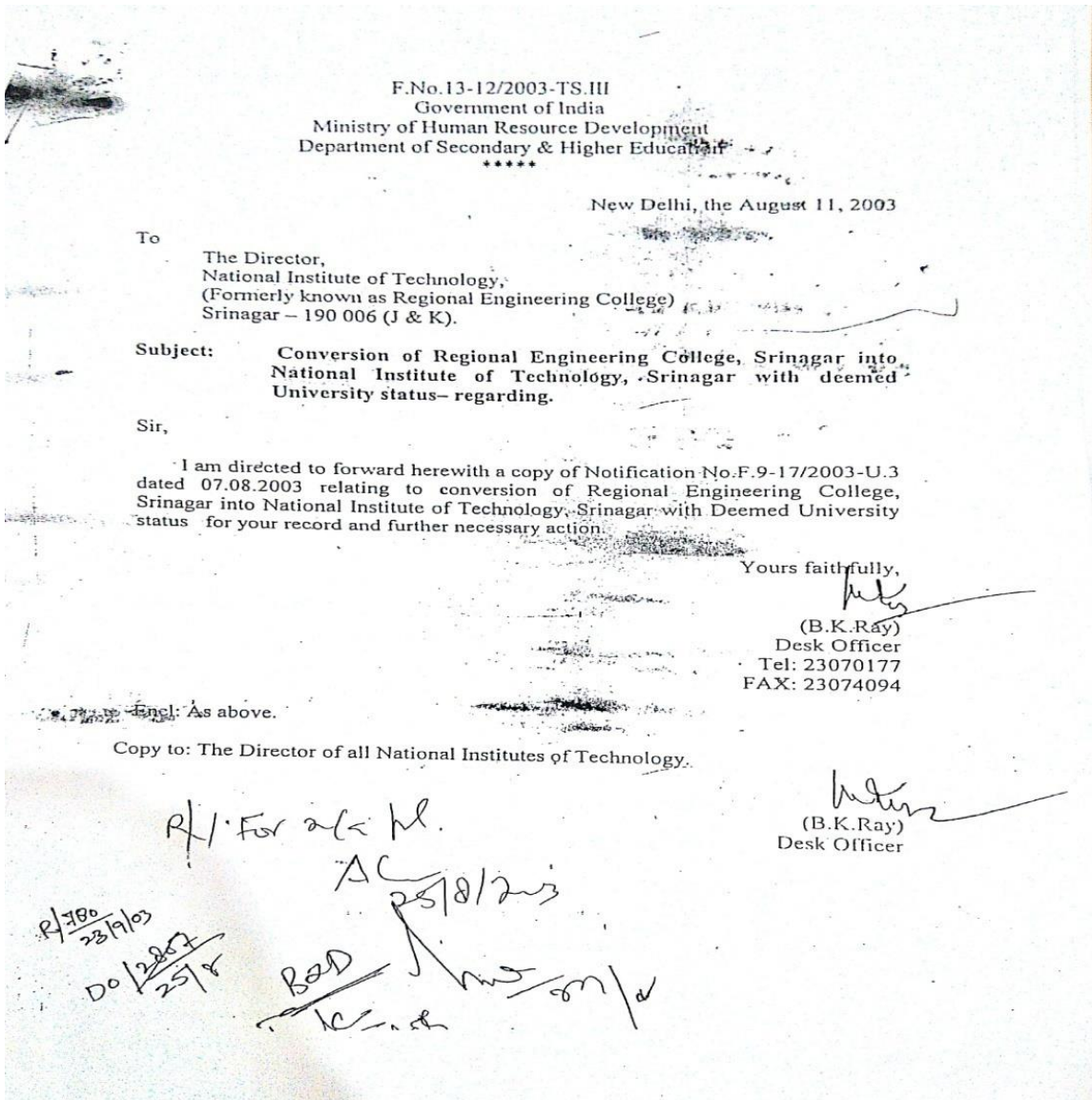


Figure A.2b

**PART B: Criteria Summary**Name of the program: **B.Tech in Civil Engineering**

Criteria No.	Criteria	Marks/Weightage	
		Max.	Claimed
	<b>Program Level Criteria</b>		
<b>1</b>	Vision, Mission and Program Educational Objectives	50	50
<b>2</b>	Program Curriculum and Teaching – Learning Processes	100	87
<b>3</b>	Course Outcomes and Program Outcomes	175	155
<b>4</b>	Students' Performance	100	90.09
<b>5</b>	Faculty Information and Contributions	200	172
<b>6</b>	Facilities and Technical Support	80	75
<b>7</b>	Continuous Improvement	75	67
	<b>Institute Level Criteria</b>		
<b>8</b>	First Year Academics	50	50
<b>9</b>	Student Support Systems	50	50
<b>10</b>	Governance, Institutional Support and Financial Resources	120	120
	<b>Total</b>	<b>1000</b>	<b>916.09</b>

*Criterion 1*

<b>CRITERION 1</b>	<b>Vision, Mission and Program Educational Objectives</b>	<b>Max. Marks: 50 Claimed:50</b>
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**1.1 . State the Vision and Mission of the Department and Institute (5)**

**Institute**

<b>VISION</b>
To establish a unique identity of a pioneer technical Institute for NIT Srinagar by developing a high quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region in particular keeping in view global challenges.

<b>MISSION</b>
(1) The broad mission of NIT Srinagar is to create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture with international standards.  (2) Technically educated and broadly talented engineers, future innovators and entrepreneurs, graduate with understanding of the needs and the problems of the industry, the society, the state, and the nation.  (3) We promise to inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineers.

***Table B.1.1a***

**Quality Policy of the Institute**

NIT Srinagar shall strive to impart knowledge, hone skills and nurture creativity for all stakeholders

<b>VISION</b>
To create a unique identity of the Department by achieving the excellent standards of quality technical education keeping a pace with the rapidly changing technologies and to produce the Civil Engineers of global standards with the capability of accepting new challenges.

***Table B.1.1b***

**Department**

<b>MISSION</b>
<ul style="list-style-type: none"><li>• To promote academic growth in the field of Civil Engineering by offering state-of-the-art undergraduate and postgraduate programmes.</li><li>• To provide knowledge base and consultancy services in all areas of Civil Engineering for industry and societal needs</li><li>• To inculcate higher moral and ethical values among the students to become competent Civil Engineers overall leadership qualities</li><li>• To establish the Centre of Excellence in the emerging areas of research related to Civil Engineering and its allied fields</li></ul>

*Table B.1.1c*

**1.2. State the Program Educational Objectives (PEOs) (5)**

<b>PROGRAM EDUCATIONAL OBJECTIVES (PEOs)</b>
PEO1. To produce professionally competent Civil Engineers, capable of applying the knowledge of contemporary Science and Technology to meet the challenges in the field of Civil Engineering and to serve the Society.
PEO2. To prepare the Civil Engineering graduates to work in industry, government or other organizations in different capacities involving individual and team work.
PEO3. To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence and independent thinking.
PEO4. To impart the training in problem visualization, surveying, analysis and planning for its solution.
PEO5. To impart the training for development of laboratory and design skills, communication skills, software and other modern tool usage among the students.
PEO6. To inculcate in the students the ability to take up the innovative research projects and to conduct investigations of complex civil engineering problems using research based methods, thus urging them for higher studies.

*Table B.1.2*

**1.3. Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (15)**

Locations where the Vision, Mission and PEOs and PSOs are published:

*Department of Civil Engineering N. I. T. Srinagar, J&K*

*Criterion 1*

Sl. No	LOCATION	INSTITUTE		DEPARTMENT			
		Vision	Mission	Vision	Mission	PEO	PSO
1	Course files	•	•	•	•	•	•
2	Lab Manual	•	•	•	•	•	•
3	Faculty Diary	•	•				
4	Course Diary/Attendance Register	•	•	•	•	•	•
5	Admission Brochures	•	•				
6	Student Observation Record	•	•	•	•	•	•

**Table B.1.3a**

Locations where the Vision, Mission, PEOs and PSOs are disseminated:

Sl. No	LOCATION	INSTITUTE		DEPARTMENT			
		Vision	Mission	Vision	Mission	PEO	PSO
1	Institute Website	•	•	•	•	•	•
2	Civil Engg. Main Block Notice Boards	•	•	•	•	•	•
3	Directors Office & Lounge	•	•				
4	HOD Room	•		•	•	•	•
5	Faculty Rooms	•		•	•	•	•
6	Department Notice Boards	•		•			
7	Classrooms	•		•		•	•
8	Laboratories	•		•	•	•	•
9	Main Library	•	•				
10	Hostels	•	•				

**Table B.1.3b**

Apart from this, Vision, Mission, PEOs and PSOs are disseminated to all the stakeholders of the Programs through faculty meetings, student awareness workshops, student induction programs, placement and training activities. The stakeholders like Faculty, Students, Parents, Employers, Alumni, and Academia & Professional bodies are well aware of the Vision, Mission, PEOs and PSOs.

Criterion 1

**1.4. State the Process for defining Vision and Mission of the department and PEOs of the program (15)**

The vision, mission and PEOs are established through continuous interaction with stake holders of the programme.

**Stakeholders of the Programme**

The department has identified the following stake holders for the undergraduate programme in civil engineering:

Stakeholders	Description	Process
INTERNAL STAKEHOLDERS	1. Professional bodies	<ul style="list-style-type: none"> <li>The inputs of the members of various professional bodies provide a platform to disseminate the information regarding the recent trends in the field and are relevant to update and upgrade the programme.</li> </ul>
	2. Faculty	<ul style="list-style-type: none"> <li>Faculty has a vital role in the working / running of programme.</li> <li>Faculty is involved in various committees to check the consistency of the programme.</li> <li>Faculty provides valuable inputs for the design of the programme, establishments of PEOs and POs, course outcomes and assessment.</li> </ul>
	3. Students	<ul style="list-style-type: none"> <li>Students have a most important role in the programme as they are the end products.</li> <li>Students' feedback is/will be considered to introduce innovative teaching and learning methodologies.</li> <li>The inputs from students will help the programme to introduce the electives courses required to meet the current trend.</li> </ul>
	4. Parents	<ul style="list-style-type: none"> <li>Parents support their wards and have high expectation of them succeeding in their professional career and higher education.</li> </ul>
EXTERNAL STAKEHOLDERS	1. Industry/ Employers	<ul style="list-style-type: none"> <li>Represent the end user of our graduates.</li> <li>Provides valuable inputs to shape the curriculum and hence enhance the employability of the graduates.</li> </ul>
	2. Alumni	<ul style="list-style-type: none"> <li>Alumni constitute the focus group as they are the measure of success of the programme.</li> <li>Valuable feedback is obtained from the alumni regarding recent trends in engineering which helps in curriculum design.</li> </ul>
	3. Academii	<ul style="list-style-type: none"> <li>The faculty members from various sister universities, IITs, provide valuable feedback in</li> </ul>

		design updated programme.
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**Table B.1.4**

**A. Process for defining the Vision and Mission of the department (7)**

The Vision and Mission are established through a consultation process involving the stake holders such as: students, faculty, members of alumni / professional bodies, faculty members from sister Universities and IITs. The flow chart in Figure B.1.4a below indicates the process for defining the vision and mission of the department.

<b>Step 1:</b>	Programme coordinator consults various stake holders and after collecting their views about the vision and mission of the department and submits the proposal to the programme evaluation committee.
<b>Step 2:</b>	The programme evaluation committee summarizes the collected views and formulates the accepted views based on which the vision and mission are to be established. The final recommendations of the BOS are submitted to the institute Senate.
<b>Step 3:</b>	The Senate after deliberations approves the recommendations of the BOS and hence the vision and mission of the department are established.

**Table B.1.4a**

**B. Process for defining the PEOs of the Programme/ Department (8)**

The programme educational objectives are established through a consultation process involving the stake holders such as: students, parents, faculty members, alumni / professional bodies, faculty members from sister universities and IITs. The PEOs are established through the following process steps (Figure B.1.4b):

<b>Step 1:</b>	The vision and mission of the department and the graduate attributes of NBA are kept in view and taken as basis to interact with the stake holders for framing PEOs.
<b>Step 2:</b>	Programme coordinator consults various stake holders and after collecting their views submits the proposal to the programme evaluation committee.
<b>Step 3:</b>	The programme evaluation committee summarizes the collected views and formulates the accepted views based on which PEOs are to be established.
<b>Step 4:</b>	The BOS after deliberations approves the recommendations of the PEC and hence the PEOs are established.

**Table B.1.4b**

Process for Defining Vision and Mission of the department:

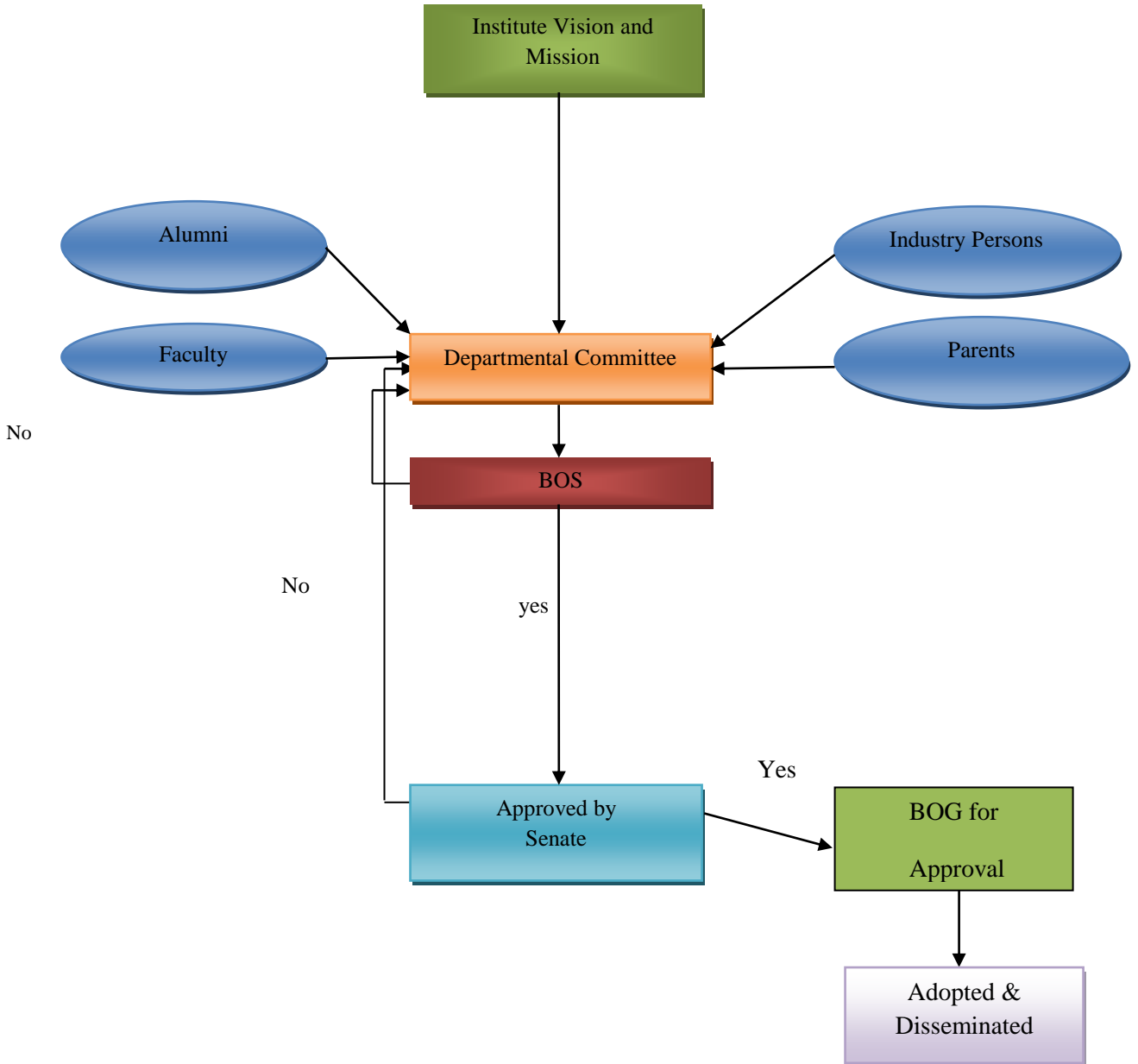


Figure B.1.4a



Process for Defining PEOs of the Programme:

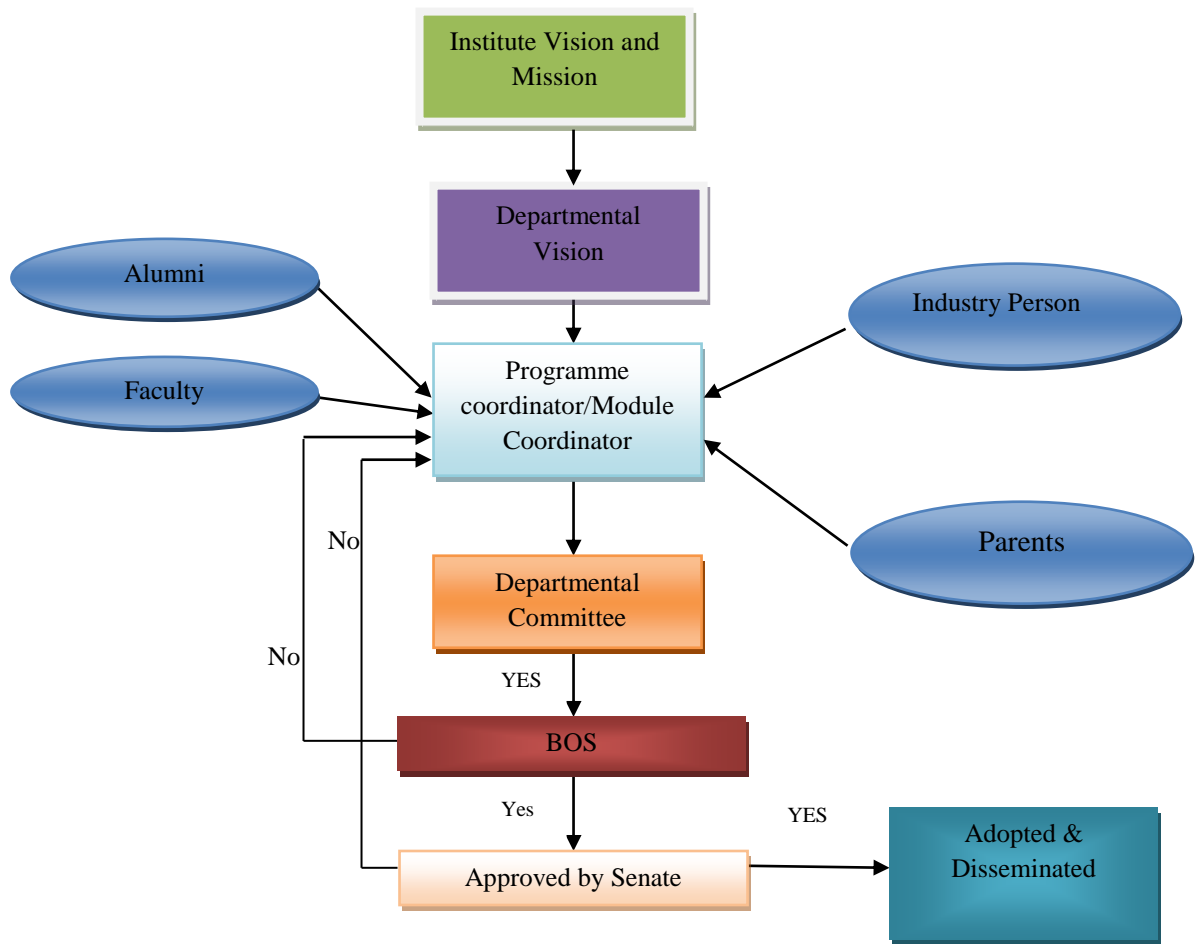


Figure B.1.4b

**1.5. Establish consistency of the PEOs with Mission of the department (10)**

The mission of the programme is to promote academic growth by offering state of the art undergraduate and Post Graduate programmes such that students prosper in their career or pursue higher education to further enhance their knowledge. The programme educational objectives address this issue by providing sound knowledge of fundamentals, analysis and solution of complex problems, laboratory and communication skills (TableB.1.5a).

Criterion 1

**A. Preparation of a matrix of PEOs and elements of mission statements (5)**

The table for correlation of PEO'S with mission:

Mission Statements		M1	M2	M3	M4	M5
PEO statements		Academic growth	Industrial needs	Social needs	Moral and Ethical values	Consultancy &R&D projects
<b>PEO1</b>	To produce professionally competent Civil Engineers of applying the knowledge of contemporary Science and Technology to meet the challenges in the field of Civil Engineering and to serve the Society	3	2	1	2	3
<b>PEO2</b>	To prepare the Civil engineering graduates to work in industry, government or other organizations in different capacities involving individual and team work.	3	3	1	2	3
<b>PEO3</b>	To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence and independent thinking.	1	2	3	3	2
<b>PEO4</b>	To impart the training in problem visualization, surveying, analysis and planning for its solution.	3	3	2	1	3
<b>PEO5</b>	To impart the training for development of laboratory and design skills, communication skills, software and	3	3	1	2	3

Criterion 1

	other modern tool usage among the students					
<b>PEO6</b>	To inculcate in the students the ability to take up the innovative research projects and top conduct investigations of complex civil engineering problems using research based methods, thus urging them for higher studies.	3	2	1	2	3

3: (High), 2 (Medium):1(Low)

**Table B.1.5a**

**B. Consistency/ Justification for Correlation of PEO and Mission (5)**

<b>PEO</b>	<b>JUSTIFICATIONS commitment</b>
<b>PEO 1</b>	M1(High): Faculties with high degree of academic professionalism combined with excellent infrastructural facilities and teaching learning methodologies, shall enable graduates to perform the analysis, design and construct complex systems accept the new technological challenges.
	M2 (Medium): Students are made to utilize the technical knowledge achieved during the course of study in various field applications.
	M3(Low):Students are encouraged to take up various social service activities with the help of organizations like NSS which help them to carry out their responsibilities towards the society effectively
	M4 (Medium): The commitment to professional ethics and responsibilities in applying their knowledge in the best interest of society.
	M5 (High): New facilities are introduced in connection with extension program of Research and Development cell.
<b>PEO 2</b>	M1 (High): Providing industrial training and other inputs to teaching-learning processes so as to develop awareness about the job functions in the industry among students.
	M2 (High): The knowledge, practical skills and research aptitude sharpened at the institution would enable the graduates to have an urge for lifelong learning.
	M3 (Low): Efforts were made by the department through which faculties with expertise in field work have enlightened the students with social and ethical values and their responsibilities through a sneak peek into their work experiences.
	M4 (Medium): Seminars and workshops on Professional practice/duties conducted for the students trained them about the duties and responsibilities.
	M5 (High): Suitable incentive to be granted to those who take up the consultancy projects, so that they get exposure to the real field problems and challenges.

Criterion 1

PEO 3	M1 (Low): There is not enough correlation between academic growth and personality development courses in the curriculum, which is to be taken care of.
	M2(Medium): Exposure to managerial skills through various co-curricular and extracurricular activities included in the academic year helped to achieve the target
	M3(High): Quality education with required soft skills imparted in the institution would inspire graduates to adhere to professional ethics while working and help them grow as responsible leaders capable of addressing global challenges.
	M4 (Medium): Instructions are given to the student regarding the professional ethics to be followed in engineering practice.
	M3 Low): Students require more opportunities for using their engineering knowledge for the welfare of the society. University prescribed syllabus for the courses which are not adequate in forming the students into socially responsible engineers. Additional activities need to be incorporated to achieve the target
	M4 (Medium): Apply ethical principles and commit to professional ethics, responsibilities and norms of the engineering practice.
	M5(Low): Students with ethical values better cater to consultancy or R&D work.
PEO 4	M1(High): The quality education imparted through academically proficient teachers trained in institutes of repute would prepare graduates to evolve into professionally and ethically sound engineers to meet the current technical challenges.
	M2 (High) The Institute is providing all technical, financial and infrastructure supports for effective functioning. Most of the activities are pre-planned and are included in the academic calendar.
	M3 (Medium): Students are encouraged to carry out their social responsibilities as per the curriculum.
	M4 (Low): Ethics of work practice to be stressed in surveying and related practices.
	M5(High): The knowledge, practical skills and research aptitude sharpened at the institution would enable the graduates to have an urge for lifelong learning
PEO 5	M1(High): Curriculum design incorporating student seminars, assignments and tutorials would enable the students to develop individual capabilities and communication skills. Graduates will be able to comprehend and write effective reports and make presentations on complex engineering problems. Consequently this would create graduates with knowledge, practical skills and research aptitude.
	M2(High): The knowledge and practical skills gained through the curriculum designed to include relevant software packages for planning and executing Civil Engineering projects would enable the graduates to excel in modern civil engineering practices and techniques.
	M3 (Low): Method of teaching learning process where-in laboratory sessions are conducted utilizing the well-equipped laboratory facilities that would enable graduates to cater to social needs.
	M4(Medium): Quality training on the use of relevant software packages for planning , designing, execution and quality control of Civil Engineering projects would nurture graduates into ethically strong and responsible engineers capable of addressing global challenges in the arena of Civil Engineering.
	M5(High): Exposing students to emerging trends and innovations in sustainable engineering practices, through some of the relevant software packages applicable in various domains of civil engineering would enable graduates to execute and control civil engineering projects.

*Criterion 1*

<b>PEO 6</b>	M1 (High): To involve students in the discussions and deliberations on the specific contemporary technical challenges and issues, thereby inducing in them the practice of mainly research based solutions to the problems and an urge for the higher education.
	M2 (Medium): Students will be able to utilize the knowledge achieved through research projects and investigations in various industrial applications.
	M3 (Low): To assign the students the UG projects of innovative nature that would encourage them to take up the innovative projects in their future endeavor.
	M4 (Medium): Instructions were given to the student regarding the professional ethics to be followed in engineering practice.
	M5 (High): Student participation for consultancy activities and real time projects is encouraged.

*Table B.1.5b*

<b>CRITERION 2</b>	<b>Program Curriculum and Teaching- Learning Processes</b>	<b>Max. Marks: 100 Claimed:87</b>
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## 2.1 Program Curriculum (27)

### 2.1.1 State the process for designing the program curriculum (9)

The program curriculum is designed keeping in view the broad guidelines of the Institute, inputs from other premier institutes like IIT's/NITs, guidelines of MHRD/AICTE, industry demands and to meet the requirements of POs and PEOs of the Department.

Inputs and suggestions from students, academia, Industry persons/ employers, alumni and parents are used while designing curriculum for the program. Technological developments constitute important criteria while designing the program curriculum. The faculty members design the course content to meet the requirements. The individual courses are discussed specifically for their outcomes in the faculty meetings of the concerned group, then in the Departmental committees. After incorporating the suggestions made in these forums, the curriculum is placed in the Board of Studies of the Department (BOS) which has expert members from outside generally from IIT's/NIT's. The Board of Studies is a statutory body and comprises of:

- |                                                                                                                     |             |
|---------------------------------------------------------------------------------------------------------------------|-------------|
| 1. HOD, Prof. Shagoofta Shah,                                                                                       | Chairperson |
| 2-3. One Professor and One Assoc. Prof. of Department by rotation                                                   | Members     |
| 4-5. Two External Subject Experts (Prof. G. L. Asawa (Retd.) from IIT Roorkee and Prof. Shakeel from JMI New Delhi) |             |
| Members                                                                                                             |             |

Once the curriculum is recommended by the BOS, it is placed in the Senate of the Institute, which is the highest academic body of the institute. The Senate of the NIT Srinagar is chaired by the Director and comprises of all Professors/ Deans/ HOD's of the Institute as members as per the NIT's Statutes.

In addition to the Institute members, it has at least three subject expert members from academia of outside institutes of repute, one member each from Industry and from alumni. The presence of outsiders and alumni ensures that the curriculum is designed to meet the present day requirements and challenges of the profession. The process for designing the program curriculum is illustrated in Figure 2.1. The suggestions/ inputs from the stake-holders are obtained through feedback collection in predesigned formats and during formal /informal meetings.

#### 2.1.1.1 Stakeholders of the Programme:

The department has identified the following stake holders for the undergraduate programme in civil engineering:

- Students
- Faculty
- Industry / Employer
- Alumni
- Parents

#### Students:

- Students have a most important role in the programme as they are the end products.

### *Criterion 2*

- Students' feedback is/will be considered to introduce innovative teaching and learning methodologies.
- The inputs from students will help the programme to introduce the electives courses required to meet the current trend.

### **Faculty:**

- Faculty has a vital role in the working / running of programme.
- Faculty is involved in various committees to check the consistency of the programme.
- Faculty provides valuable inputs for the design of the programme, establishments of PEOs and POs, course outcomes and assessment.

### **Industry / Employer:**

- Represent the end user of our graduates.
- Provides valuable inputs to shape the curriculum and hence enhance the employability of the graduates.

### **Alumni:**

- Alumni constitute the focus group as they are the measure of success of the programme.
- Valuable feedback is obtained from the alumni regarding recent trends in engineering which helps in curriculum design.

### **Parents:**

- Inputs are received through contacts by phone/mail and sometimes meetings.

### **Professional bodies:**

- The inputs of the members of various professional bodies provide a platform to disseminate the information regarding the recent trends in the field and are relevant to update and upgrade the programme.

Process of designing the programme curriculum:

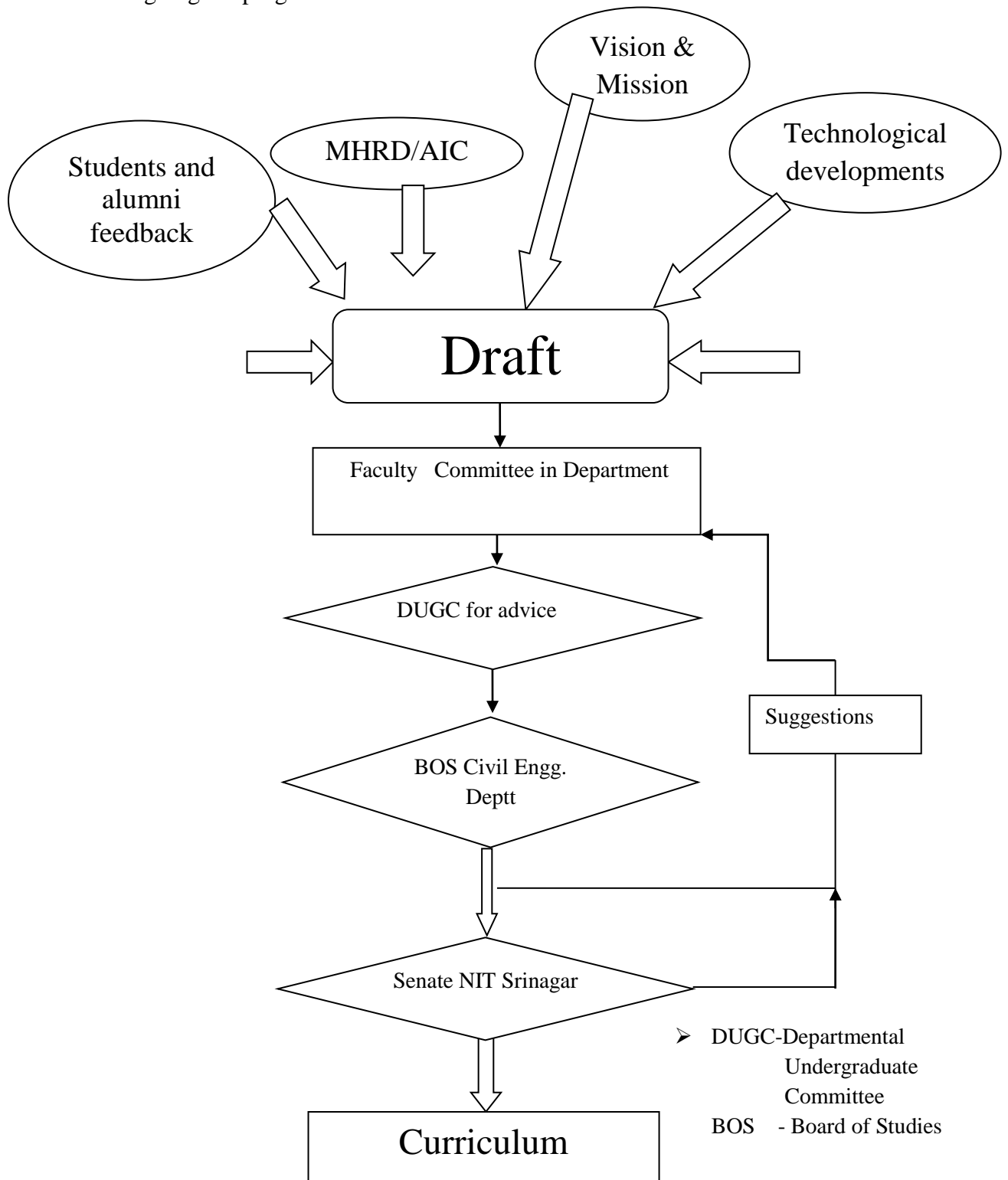


Figure B.2.1.1.1a



Criterion 2

Flow chart showing identification of curriculum gaps

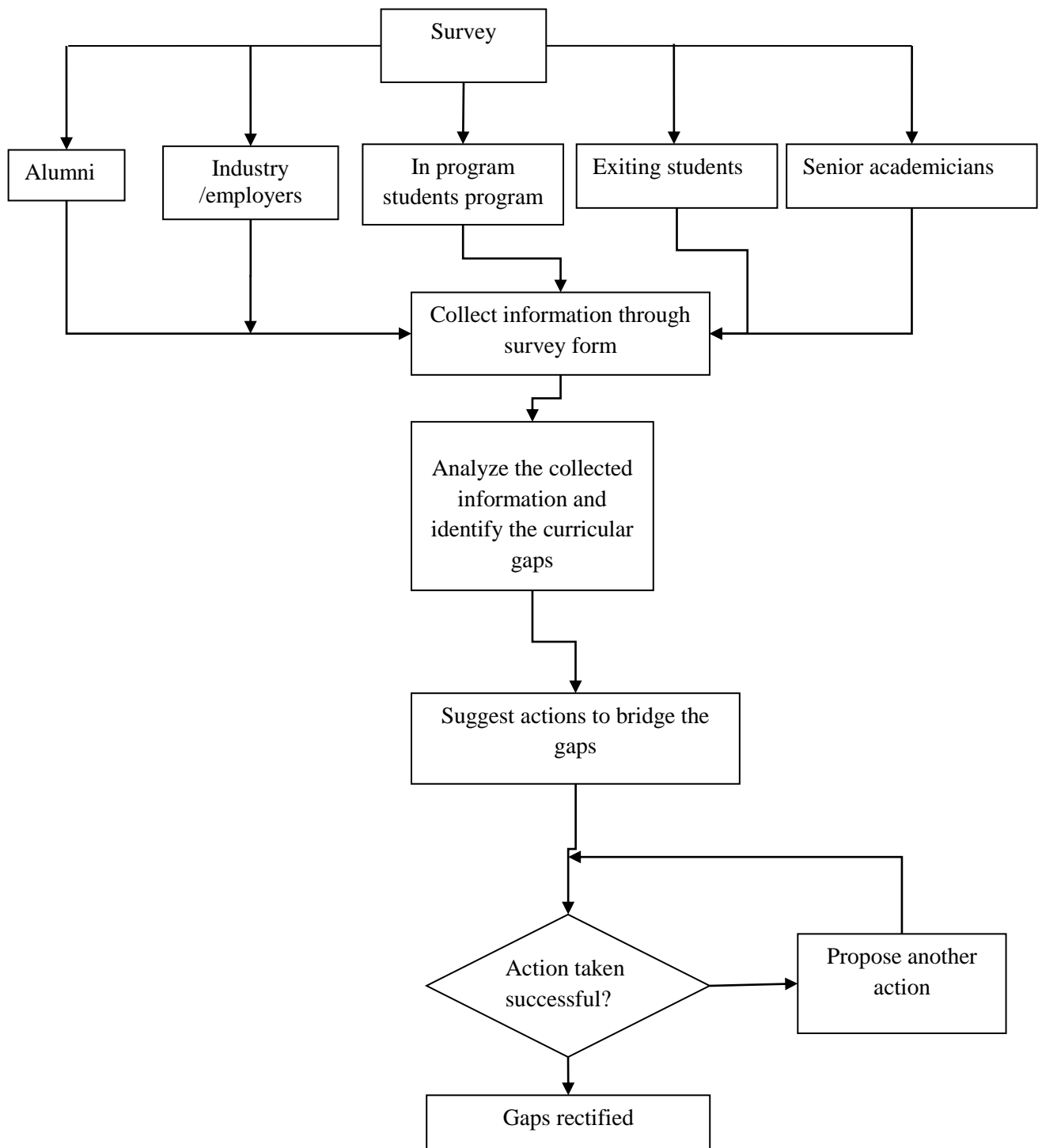


Figure B.2.1.1.1b

Criterion 2

**2.1.2 Structure of the Curriculum (4)**

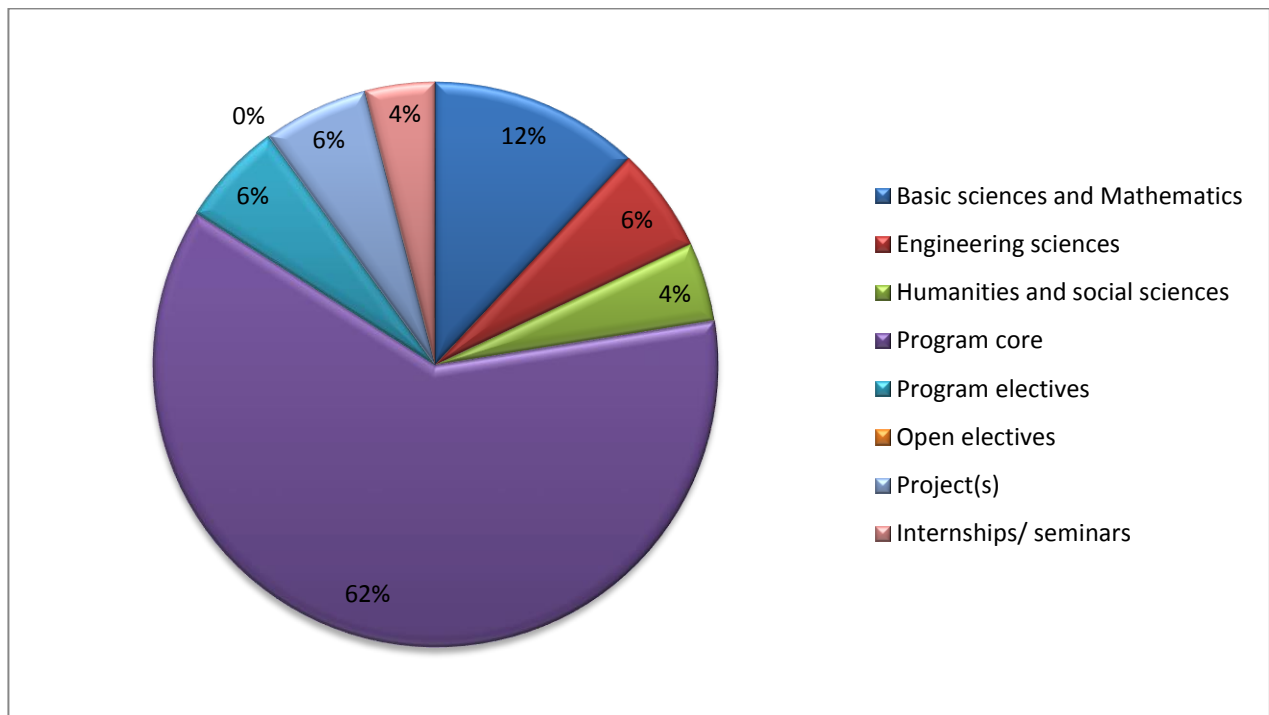
The curriculum finalized by the department after following the due process mentioned in the preceding paragraphs is detailed in the Table B.2.1.3 which follows:

**2.1.3 State the components of the curriculum (5)**

Course component	Curriculum content (% of total number of credits of the program)	Total number of contact hours/week	Total number of credits
Basic sciences and Mathematics	12		24
Engineering sciences	6		12
Humanities and social sciences	4.5		9
Program core	61.5		123
Program electives	6		12
Open electives	-	-	-
Project(s)	6		12
Internships/ seminars	4		8
<b>Total number of credits</b>			<b>200</b>

*Table B.2.1.3*

Pie diagram representation of the curriculum:



*Figure B.2.1.1.1b*

*Criterion 2*

**2.1.4 State the process used to identify extent of compliance of the curriculum for attaining the program outcomes and program specific outcomes (9)**

- The process that periodically documents and demonstrates how the program curriculum is compiled considering the POs and PSOs.
  - Institute curriculum structure
  - Allocation of hours
  - A planned class engagement schedule
  - A well-defined administrative set-up in the department for monitoring of the implementation of the curriculum
- Identification process of the curricular gaps
  - Feedback From:
    - Students
    - Faculty survey
    - Industry survey
    - Alumni
    - Parents

**Feedback Forms:**

**1. Alumni Survey**

<b>Civil Engineering Department National Institute of Technology Srinagar Alumni Survey Form</b>		
Thank you for taking the time to fill out this questionnaire. All the information will be kept confidential and will be used only for statistical purposes. As an alumnus, your opinions are valued and are utilized to help us make periodic changes and updates for continuous improvement of our undergraduate program		
<b>Name(optional)</b>		
<b>Year of Graduation</b>		
<b>Mailing address</b>		
<b>Placement</b>	<b>Before/after graduation</b>	<b>Core/Software</b>
<b>Name of the Company</b>		
Please rate each of the following skills, abilities or attributes in terms of their importance to state how well your education at <b>Civil Engineering Department, National Institute of Technology, Srinagar</b> prepared you for these. <b>Write the appropriate number by Using Scale (1 to 3).</b> <b>1= Satisfactory;                      2=Good;                      3=Excellent</b>		
<b>Skills, Abilities and Attributes</b>		<b>Rating</b>
Apply Knowledge of mathematics, Basic sciences and Engineering		
Problem Identification and Analysis		
Design a system and develop solution to the problem		
Investigate and Handle complex problems		
Ability to use techniques and tools in engineering practice		
Understand and appreciate the impact of engineering in the societal and global contexts		
Awareness of existing issues (e.g. Economics of engineering, Environmental issues)		
Understand professional and ethical responsibilities as an engineer (e.g., safety, professional ethics, code of conduct)		
Function effectively in teams		
Proficient in English language in both communicative and technical forms		
Awareness of the need for life-long learning (Seeking further education, self-learning, Membership in professional societies)		
Project Management and Finance		
<b>Signature</b>	<b>Suggestion if any:</b>	

**2. Employer Survey**

<b>Civil Engineering Department</b> <b><u>National Institute of Technology, Srinagar</u></b> <b>EMPLOYER SURVEY FORM</b>				
The purpose of this feedback is to obtain Employer’s inputs on the quality of education of our undergraduate program. Your sincere cooperation would enable us to improve the quality of our graduates as per your requirements.				
Name of Company/ Organization				
Mailing address				
Sector Private/Public/Academia				
Please rate our Graduates working in your organization using the following criterion. <b>Put tick mark Knowledge, Skills, Abilities, Attitude and other Attributes expected out of NIT Srinagar graduates.</b>				
No.	Overall, are you satisfied with	Excellent (3)	Good (2)	Satisfactory (1)
1	Capacity for design and analysis of engineering problems and formulation of appropriate solutions, retaining professional and ethical responsibilities.			
2	Aptitude for self-education and a clear appreciation for the value of life-long learning to update professional knowledge.			
3	Understanding professional engineering solutions for sustainable development and their application in global, national and societal contexts.			
4	Desire and capacity for acquiring new skills and applying them in research and development.			
5	Fundamental knowledge in mathematics and science and professional fluency in English both communicative and writing			
6	Exhibition of management and leadership skills that enable successful function of multi-disciplinary teams.			
	Suggestions:			

**Signature:**

**Name and Designation:**

**3. Student Feedback:**

Civil Engineering Department National Institute of Technology, Srinagar Student Feedback Form		
<b>Name(optional):</b>		<b>Year Passed out/studying:</b>
<b>Email(optional):</b>		<b>Phone(optional):</b>
<b>Assessment of Knowledge, Skills, Abilities and Attributes acquired by Students at NIT Srinagar</b>		
Please rate each of the following in terms how well NIT Srinagar inculcated them in you so far, by writing the appropriate number against each by <b>Using Scale (1 to 3)</b> . <b>1= Satisfactory;                      2=Good;                      3=Excellent</b>		
<b>S.No.</b>	<b>Attribute</b>	<b>Rating</b>
1	Ability to acquire and apply knowledge of basic mathematics, science and engineering fundamentals.	
2	Ability to apply analytical skills to engineering problems.	
3	Ability to conduct experiments, analyze data, and present results.	
4	Ability to conduct independent research for information required in engineering problem Solving.	
5	Ability to use modern technologies and tools necessary for practice.	
6	Ability to understand global issues related to engineering.	
7	Understand the importance of ethical and professional responsibility.	
8	An ability to function on multi-disciplinary teams.	
9	An ability to communicate effectively.	
10	Recognition of the need for, and an ability to engage in life-long learning.	
	Suggestions for improvement:	

**Signature:**

## *Criterion 2*

**(a) Administrative system** of the Department for development and attainment of the Curriculum:

The following administrative setup is in place to ensure attainment of

### **1. Programme coordinator and Module coordinators**

The function of Programme Coordinator and Module Coordinators is to consult various stakeholders for collecting their views about CO's, PEOs and Poss.

### **2. Departmental Faculty Committee (DFC- →DUGC)**

A committee constituted in the following manner looks after the monitoring/moderating of the academic affairs of the department:

- Head of the Department
- Programme coordinator
- Module coordinators

The functions of the committees is to review the attainment and suggest modifications if needed.

### **3. Departmental Project Review Committee UG (DPRC)**

The DPRC is constituted of the following:

- Head of the department
- Senior members from faculty
- Departmental project coordinator

The committee reviews and approves the projects, monitors the progress of the students' projects at U.G level and ensures quality project reports in tune with departmental mission.

### **4. Departmental Board of Studies BOS**

The BOS of the Civil Engineering Department consists of

- Head of the Department
- External Subject experts from Academia and Industry
- Members from faculty

The committee meets as and when required to review the curriculum and suggest new courses /modification in course/ bridging of gaps in courses/ value added courses/laboratory courses/up gradations in tune with the department's vision.

## **Program Outcomes and Program Specific Outcomes**

Program outcomes describe what students are expected to know or be able to do by the time of graduation. The program specific outcomes broadly describe the overall capabilities a student is expected to possess at the end of the undergraduate programme. The program outcomes and program specific outcomes of under graduate program in civil engineering are as follows:

**Program outcomes and Program Specific Outcomes**

***a) PROGRAM OUTCOMES (POs)***

- PO1:** To apply the basic knowledge of contemporary science and technology along with civil engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.
- PO2:** To identify, formulate and analyze a complex civil engineering problem supported by literature survey leading to substantial conclusions.
- PO3:** To obtain solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.
- PO4:** To apply systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.
- PO5:** To develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modeling of complex civil engineering problems, duly identifying the limitations.
- PO6:** To utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.
- PO7:** To ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.
- PO8:** To adhere to professional ethics and norms, and respect human values while practicing the engineering profession.
- PO9:** To perform efficiently as a member or leader of a team or as an individual in diverse work environments
- PO10:** To deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.
- PO11:** To implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.
- PO12:** To have inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments..

***Table B.2.1.4a***

***b) PROGRAM SPECIFIC OUTCOMES (PSOs)***

- PSO1.** Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software's towards solving technical problems requiring civil engineering interventions.



Criterion 2

<p><b>PSO2.</b> Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.</p> <p><b>PSO3.</b> Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Table B.2.1.4b**

**Alignment of Programme outcomes with Graduate Attributes of NBA**

<b>Programme Outcomes</b>	<b>Graduate Attributes (GAs) Satisfied</b>
<b>PO1:</b> To apply the basic knowledge of contemporary science and technology along with civil engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.	Engineering knowledge
<b>PO2:</b> To identify, formulate and analyze a complex civil engineering problem supported by literature survey leading to substantial conclusions.	Problem analysis
<b>PO3:</b> To obtain solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.	Design/Development of solutions
<b>PO4:</b> To apply systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.	Conduct investigations of complex problems
<b>PO5:</b> To develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modeling of complex civil engineering problems, duly identifying the limitations.	Modern tool usage
<b>PO6:</b> To utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.	Engineer and society
<b>PO7:</b> To ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.	Environment and sustainability
<b>PO8:</b> To adhere to professional ethics and norms, and respect human values while practicing the engineering profession.	Ethics

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<b>PO9:</b> To perform efficiently as a member or leader of a team or as an individual in diverse work environments	Individual and team work
<b>PO10:</b> To deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.	Communication skills
<b>PO11:</b> To implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.	Project management and leadership
<b>PO12:</b> To have inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments..	Life-long learning

**Table B.2.1.4c**

The above table indicates a strong alignment of the Programme outcomes of the department with the Graduate attributes expected from a civil engineering graduate.

**The correlation between the POs and PEOs.**

The correlation between Program Outcomes and Program Educational Objectives is established in Table below.

**Correlation between POs and PEOs**

<b>Program Outcomes</b>	<b>Program Educational Objectives met through the PO's STRONGLY &amp; VERY STRONGLY</b>
PO1	PEO1; PEO5;
PO2	PEO1; PEO2; PEO3; PEO4; PEO6
PO3	PEO2; PEO4; PEO6
PO4	PEO1; PEO2; PEO4; PEO5; PEO6
PO5	PEO1; PEO2; PEO3; PEO4; PEO6
PO6	PEO1; PEO2; PEO3; PEO4; PEO5
PO7	PEO1; PEO2; PEO3; PEO4; PEO5
PO8	PEO2; PEO3; PEO6
PO9	PEO2; PEO3
PO10	PEO2; PEO3
PO11	PEO1; PEO2; PEO6
PO12	PEO1; PEO2; PEO3; PEO4; PEO5

**Table B.2.1.4d**

The correlation between the two is therefore very strong to strong meaning very satisfactory.

**Contribution of Course Components to the program outcomes**

The broad course components are mapped to POs and PSOs and the results are depicted in TableB.2.1.4e to depict how these help in the attainment of program outcomes.

**Table 2.1.4.5 Mapping of Curriculum components to PO's/PSO's**

Curriculum component	Number of credits	POs achieved	Justification for the achievement
Mathematics and Basic Sciences	26	PO1, PO2, PO3	<b>PO1</b> - Basic mathematical and scientific understanding is essential to engineering knowledge <b>PO2</b> - Mathematical understanding is prerequisite to analysis of engineering problems <b>PO3</b> - Helps in mathematical formulation of problems and solutions <b>PSO2</b> - Mathematics is used for data and result analysis
Basic Engineering Courses	42	PO1, PO2, PO6, PO7 PSO1 PSO2 PSO3	<b>PO1</b> - Imparts knowledge of engineering fundamentals. <b>PO2</b> - Provides basic knowhow for Engineering analysis <b>PO6</b> - Help in relating engineering to society and societal issues <b>PO7</b> - Help in achieving sustainable engineering solutions <b>PSO1</b> - Provides basic knowledge of engineering principles <b>PSO2</b> - Develops capability of applying engineering in problem analysis <b>PSO3</b> - Helps in developing laboratory and field engineering skills
HSS	09	PO8, PO9, PO10 PSO2	<b>PO8</b> - Helps in developing professional ethics <b>PO9</b> - Help in developing qualities of planning and cooperation <b>PO10</b> - Equip individuals with efficient communication skills <b>PSO2</b> - Enable individuals to prepare reports, publications, etc.
Professional core including Project/seminars/training/internship	105	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO12 PSO1 PSO2 PSO3	<b>PO1</b> - Provide fundamental knowledge of civil engineering <b>PO2</b> - Develop capability of engineering analysis of problems <b>PO3</b> - Help in attaining engineering solutions compatible with public health and society <b>PO4</b> - Aid in learning design, analysis, interpretation of data and synthesis of information <b>PO5</b> - Provide knowledge about availability and usage of modern tools in civil engineering <b>PO6</b> - Develop skills to analyze societal, health and

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			<p>other public issues in engineering context</p> <p><b>PO7</b> - Provide capability to incorporate environmental constraints in engineering solutions for sustainability</p> <p><b>PO12</b> – Lifelong learning is motivated.</p> <p><b>PSO1</b> - Study various civil engineering principles in these subjects.</p> <p><b>PSO2</b> - Provide knowledge for analyzing and developing designs</p> <p><b>PSO3</b> - Surveying, mapping and engineering drawing skills are developed</p>
Electives	18	<p>PO3, PO5, PO11, PO12 PSO1 PSO2 PSO3</p>	<p><b>PO3</b> - Study about processes that meet the specified needs</p> <p><b>PO5</b> - Problem specific tools and techniques are learnt</p> <p><b>PO11</b> - Management related subjects can be learnt</p> <p><b>PO12</b> - Motivate individuals towards specific skill enhancement</p> <p><b>PSO1</b> - Provide subject specific technical civil engineering knowledge</p> <p><b>PSO2</b> - Help in developing enhanced skills of design and analysis</p> <p><b>PSO3</b> - Specific skills related to surveying can be learnt</p>

*Table B.2.1.4d*

## 2.2 Teaching -Learning Process (60)

### 2.2.1 Process followed to improve quality of Teaching Learning (13)

#### A. Adherence to academic calendar (2)

#### Academic Calendar Year 2018-2019

Month	Activities Planned
February	Registration B.Tech. 8 <sup>th</sup> Semester (Spring 2018 session)
	Commencement of classes for B.Tech. 8 <sup>th</sup> Semester
	Registration with late fee B.Tech. 8 <sup>th</sup> Semester (Spring 2018 session)
	Registration B.Tech. 2 <sup>nd</sup> , 4 <sup>th</sup> and 6 <sup>th</sup> Semesters, M.Tech./M.Sc. 2 <sup>nd</sup> and 4 <sup>th</sup> and Ph.D. (Spring 2018 session)

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<b>March</b>	Registration with late fee B.Tech. 2 <sup>nd</sup> , 4 <sup>th</sup> and 6 <sup>th</sup> Semesters, M.Tech./M.Sc. 2 <sup>nd</sup> and 4 <sup>th</sup> and Ph.D. (Spring 2018 session)
	Commencement of classes for B.Tech. 2 <sup>nd</sup> , 4 <sup>th</sup> and 6 <sup>th</sup> Semesters, M.Tech./M.Sc. 2 <sup>nd</sup> and 4 <sup>th</sup> and Ph.D.
<b>April</b>	Mid-Term exam B.Tech. 8 <sup>th</sup> Semester
	Mid-Term exam B.Tech. 2 <sup>nd</sup> , 4 <sup>th</sup> and 6 <sup>th</sup> Semesters, M.Tech./M.Sc. 2 <sup>nd</sup> and 4 <sup>th</sup> and Ph.D.; Alumni Meet-2018; Extra Curricular Activities
<b>May</b>	Annual Day; Practical Examinations; Advertisement for PH.D. admissions; End Semester Examination B.Tech. Semester
<b>June</b>	B.Tech. Project Viva-voce Examination
	End Semester Examination B.Tech. 2 <sup>nd</sup> , 4 <sup>th</sup> and 6 <sup>th</sup> Semesters, M.Tech./M.Sc. 2 <sup>nd</sup> and 4 <sup>th</sup> and Ph.D.
<b>July</b>	M.Tech. Dissertation Viva-voce Exam; Supplementary Examinations for odd semester; Summer Break; Special Supplementary Examinations for 8 <sup>th</sup> Semester; Registration for U.G./ P.G. / Ph.D. (Autumn 2018); Commencement of classes; Registration with late fee
<b>August</b>	Fresher's Orientation Day
<b>September</b>	Extra-Curricular Activities; Mid-Term Examination ;Convocation Alumni Meet Delhi Chapter
<b>October</b>	Tech. Fest/ ECA
	National Innovation Day
<b>November</b>	Practical Examination; National Entrepreneur Day End Semester Examination; Supplementary Examination for Even Semester
<b>December</b>	Winter Vacations for students

**Table B.2.2.1a**

As on date the present calendar activities have been adhered to.

**Adherence to Academic Calendar (2016-2017)**

*Criterion 2*

<b>Month</b>	<b>Activities Planned</b>
<b>February</b>	Registration (Spring 2017 session)
<b>March</b>	Late Registration (Spring 2017 session) Teaching (8 <sup>th</sup> Semester); Teaching (other Semesters)
<b>April</b>	1 <sup>st</sup> Minor Extra-Curricular Activities
<b>May</b>	2 <sup>nd</sup> Minor Alumni Day Annual Day
<b>June</b>	B.Tech. Project Viva-voce Examination Major (8 <sup>th</sup> Semester) Major (Other even Semesters) Result Declaration (8 <sup>th</sup> Semester) M.Tech. Dissertation Viva-voce Exam
<b>July</b>	Result Declaration (M.Tech); Supplementary Examinations for odd semester; Result Declaration (all semesters) Registration (Autumn 2017 session); Late Registration (Autumn 2017 session); Teaching; Tech. Fest
<b>August</b>	Fresher's Orientation Day 1 <sup>st</sup> Minor
<b>September</b>	Extra-Curricular Activities Convocation 2016
<b>October</b>	2 <sup>nd</sup> Minor
<b>November</b>	Major for odd semesters
<b>December</b>	Supplementary Examination for Even Semester Result Declaration (all semesters); Winter Vacations for students

**Table B.2.2.1b**

The calendar was implemented as per schedule up to 11<sup>th</sup> July 2016 but thereafter due situations beyond institute control, the activities up to Nov2016 were rescheduled from Dec.2016 and completed up to March 2017 utilizing full winter vacation and holidays thereby ensuring that the academic calendar for 2017 is achieved without any loss of time. The students who were to graduate in June-July 2017 completed on time which was a great achievement.

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<b>Month</b>	<b>Activities Planned during the month</b>
March 2015	1. Registration; Late Registration Teaching (8th Semester)/ other semesters starts
April 2015	1st Minor
	Extra Curricular Activities
May 2015	2nd Minor; Tech. Fest.; Alumni Day
June 2015	B.Tech. & M. Tech. Project Viva
	Major Exam. for 8th semester
	Major Exam. for other even semesters
July 2015	Supplementary for odd semesters
	Result Declaration for 8th Semester
	Registration for autumn semester
	Late Registration
	Teaching
Aug 2015	Fresher's Orientation Day
	1st Minor
September 2015	Extra Curricular Activities
	CONVOCATION 2015
October 2015	2nd Minor
November 2015	Major for odd semesters
December 2015	Supplementary for even semesters
	. WINTER VACATIONS (for students)

**Table B.2.2.1c**

The calendar was implemented and achieved very satisfactorily.

**B. Pedagogical initiatives (2)****B.1 Real time examples**

- To demonstrate the complexity and unpredictability of real issues, and to stimulate critical thinking real world examples are discussed.
- Inter- and multi-disciplinary approaches are used for problem solving.
- In order to demonstrate that there is no perfect solution to a particular problem real world problems are invoked.
- Real world examples help students think more analytically about the solutions.

**B.2 Interactive classrooms**

Classes are made more interactive by encouraging student participation as follows:

- Asking students to elaborate something they have written in a response paper or on the class' discussion board.

## *Criterion 2*

- Having students to answer other students' questions.
- Punctuating the lecture with questions.
- Interrupting the lecture with a sample exam question.
- Asking students to interpret a statistic, a graph, a chart, or another visual image.
- Integrating a case study or an inquiry or a problem solving exercise into the class.
- Integrating student presentations into the class.
- Asking questions that involve higher-order thinking skills like diagnostic, challenge, evaluation or prediction questions.
- Asking students to summarize the main points that they learned in class that day and the points they found most confusing.
- Asking the students to explain the relevance, utility, or significance of the information presented in the class.

### **B.3 Slide Presentation**

Slide presentation is used to benefit the students by engaging in multiple learning styles, increasing visual impact, improving audience focus and providing annotations and highlights.

### **B.4 Video Lectures**

Video lecturer are imparted that are archived and can be accessed anytime anywhere. For certain topics and concepts video can be used by the novice students who have lower knowledge to process the concepts. Almost 50% of the lectures halls are fitted with LCD projectors for facilitate this initiative.

### **B.5 Collaborative learning**

#### **Theory subjects and Lab:**

Classes for theory /tutorial and labs are conducted as per well notified Time-table issued by the time table I/C of the department under the signatures of the HOD.

- For lab classes Groups comprising a maximum of five to six students are formed and each group is given experiment for conduct as per the syllabi of the lab by the faculty and asked to submit a report. Prior to this demonstration is given for the experiment and lab manuals are provided in the lab. For every experiment.
- A class representative is nominated by the co-coordinator of each class for maintaining communication with students.
- An assessment on the reports submitted by the students is done by the faculty to analyse the expected outcome from the activity is achieved.
- The tasks assigned could be from one to three in each semester as decided by the faculty member depending on the course.
- The focus of the tasks is on learning new technologies, enhance the knowledge on a particular topic, studying new tools to be in pace with the industry, doing some mini projects, etc.

### **B.6 Group Discussion**

Group Discussions is an excellent strategy for enhancing student motivation, fostering, intellectual agility and encouraging democratic habits. It create opportunities for students to practice and to sharpen a number of skills including the ability to articulate and



## Criterion 2

defend positions, consider different points of view, and enlist and evaluate evidence. The group discussions are promoted in the theory and lab classes.

### B.7 Assignments

The purpose of the writing assignments is to help each student develop research and communication skills so they obtain the necessary information literacy skills to complete the engineering curriculum.

Writing assignments is a flexible means of demonstrating learning as well as a method of exploring one's thinking to stimulate learning. The civil engineering department strictly follows this method

- A minimum of two assignments is given for each course in a semester.
- The assignment given could be theoretical or a practical implementation.
- The assignments are designed so that the COs, POs and PSOs are covered in the questions asked in the assignments.

### B.8 Conducting Quiz

- Quizzes are conducted for all courses in all semesters.
- At least one quiz competition is held per course in a semester.
- Faculty keeps a document of the quiz questions.
- The mode of conducting quiz is oral and in the class.
- Quiz Competitions are organized to promote scholastic excellence and to provide a venue for interaction amongst students.

### B.9 Tutorials

Tutorials are generally intended to

- Enables the students to pursue their individual academic interests within the context of the subject.
- Helps the students to gain a deep understanding of the subject matter.
- Develop students' ability to think and act like a professional in their discipline.
- Develop students' basic academic skills like identification and evaluation of relevant resources, effective communication, effective time-management etc.
- For each subject, at least one hour in every week is allotted for conducting tutorial as shown under the heading "Structure of Curriculum" above.
- A tutorial register is maintained for each subject and regularly maintained by the concerned faculty.

### B.10 Self Learning Facility

The self-learning facilities provided in the institute are:

- A Common Computing Centre equipped with more than 100 computers is available 12 hours per day with high speed internet facility.
- A departmental computer lab equipped with 50 computers having necessary system and application software's is available for students to carry out their work.
- A Central Library with an excellent collection of Books, Journals, Technical magazines, Newspapers and non-book materials in engineering and technology, science, humanities and management like CD-ROM's are available.
- The digital library provides IP enabled access to a large number of full texts on line journal databases from the various publishers such as Science direct etc.

### B.11 Co-curricular Activities

#### Lectures/ Seminars

- Eminent personalities are invited (visiting) from field deliver lectures articulating their thoughts and elaborating on their well-known works.

### B.12 Class Assessment

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The performance of students' ids made through surprise vive-voce to improve regularity of students in class and reading.

#### **B.13 Industrial Training and Industrial Visits**

The objectives of the industrial training is to expose the students to the engineering practice which is specific to their course specialization and to expose the students to the responsibility of an engineer and the engineering profession to develop the students' communication skills that include daily interaction within the working environment and technical writing.

- The students of the civil engineering department are deputed to very important infrastructure projects for undergoing industrial training of minimum 6 weeks, at 5th and 6th semester levels.
- The same is evaluated at the end of 7th semester.
- In addition the students have several industrial visits depending upon faculty members.

#### **B.14 Exhibitions**

- Project exhibitions are encouraged during programs of technical festivals such as TECHVAGANZA etc. organized by NIT Srinagar.
- Students are encouraged to take part in exhibitions conducted by various organizations so that their innovative ideas are made known to the public.

#### **C. Methodologies to support weak students and encourage bright students (02)**

- The students scoring above 75% marks are grouped as bright students and measures are taken to encourage these bright students.
- The measures taken include the following and additional actions may be added according to the requirement:
  - Provided details of advanced books to be referred.
  - Suggest e-resources and journals.
  - Exposure new tool/ software.
  - Encouraged to take additional mini-projects
  - Allowed to engage a class on a particular day
- Bright students are asked to help weak students to boost their morale.
- Prepare quiz on topics from the subject.

#### **Assistance to weak students**

- The students who scored less than 50% marks are grouped as weak students.
- Remedial classes are conducted for the weak students by faculty.
- The number of hours taken for remedial classes is decided by the faculty as required.
- Remedial tests are conducted for the weaker students thereafter and the results are analysed to identify the impact of the remedial classes.
- Additional measures are taken by the respective faculty in cases where the students fail to achieve the objective of remedial classes.

#### **D. Quality of classroom teaching (Observation in a class) (2)**

In order to facilitate the better classroom teaching the faculty members arrange the students in a classroom is such a way that the weaker students are constantly being monitored by the faculty member. It is always ensured that a weaker student is seated with a bright student. The classification of weaker and bright students is based on the grades in the previous

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semesters and mutual consultation of the faculty members. There is constant interaction between the students and the faculty in a class. The faculty members encourage the students to interrupt the teacher during the lecture for asking questions. The relevance and the depth of the question help the faculty to assess the quality of the students and also the interest of the students in acquiring the knowledge. It consists of:

- A Faculty member stops during the lecture and asks questions regarding the topics which the faculty was discussing previously in the classroom. This ensures that the students remain attentive during the delivery of the lecture.
- The weaker students are frequently asked to repeat what the faculty is teaching in that particular class so that the students constantly maintain the rough notebook in the classroom.
- The faculty member would make rounds in the classroom so that the lectures are recorded by the students in the classroom.
- Numerical problems in the classroom are assigned to the students, group wise. Each group is monitored so that a healthy atmosphere of discussion among the students is initiated to solve the problems.

### **E. Conduct of experiments and continuous assessment in the laboratory (Observation in a Lab) (2)**

- A lab manual is maintained in each laboratory.
- Each laboratory include three types of experiments:
  - Experiments in the prescribed syllabus.
  - Experiments that cover advanced topics.
  - Open-ended Experiments.
- All the experiments in the prescribed syllabus are compulsorily followed and completed by the end of the semester.
- Students should complete at least two or three experiments that cover the advanced topics in each laboratory.
- Open-ended Experiments could be assigned by the faculty or the students may choose an experiment on their own to be completed in the laboratory.
- The objective and the procedure for all experiments in the prescribed syllabus and is available in the lab manual.
- The solution along with the objective and the procedure are added to the lab manual for the experiments that cover advanced topics.
- Groups comprising a maximum of five to six students are formed in each class.
- One from the group is designated as the group leader.
- Each group may be assigned tasks by the faculty and a report on the activity is provided by the respective group leader.
- Every student maintains a rough record to record the details of work done in each laboratory session.
- The students are directed to write the step by step procedure to achieve a solution for the given experiment.
- The faculty-in-charge checks the procedure and then students can proceed with doing the experiment.
- Student should record the observations in the rough record while doing the experiment.
- Students may also analyse the data to plot graph or other related work.
- The final output is verified by the faculty-in-charge.

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- Students should add the details of the experiments done in the laboratory to the prescribed record book.
- Students can appear for the Practical Examination only if the record is certified by the faculty-in-charge.

### F. Continuous Assessment in the Laboratory (2)

The students are asked questions about the previous lab classes and small class tests are conducted frequently besides the discussion on and evaluation of the Lab notebooks prepared and maintained by the students.

### G. Students feedback of teaching learning process and action taken (1)

#### Student's feedback

- It is a valuable for identifying areas for instructional improvement.
- The feedback is taken at the end of each semester.
- The HOD provides the suggestions for improvement based on the feedback of the students wherever needed. The format of the student feedback follows:

### COURSE APPRAISAL/FEEDBACK FORM

COURSE NO & TITLE:

DATE:

FACULTY NAME:

SEM:

PLEASE TICK IN THE APPROPRIATE BOX

S. No.	Course organisation	5	4	3	2	1
1	Were the objectives and course plan clearly specified?					
2	Was the course coverage and depth adequate?					
3	Did the topics provide any new knowledge?					
4	Was the prescribed study material readily available?					
<b>Presentation and interaction</b>						
5	How were the lectures in terms of clarity and presentation of the fundamental concepts?					
6	Rate the audibility and articulation of the instructors oral presentation					
7	Did the instructor encourage think logically and objectively?					
8	Was the instructor's response to the questions asked in the class satisfactory?					
9	Rate the instructor's attitude towards teaching of this course.					
10	Were the classes held regularly and on time?					
11	Rate the overall quality of teaching in this					

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	course					
	<b>Evaluation</b>					
12	Did the examinations reflect the courses plan?					
13	Were the examinations of appropriate level and length?					
14	Were the answer script promptly checked and returned?					
15	Was the grading fair and transparent?					
16	Did the midterm evaluation improve the understanding of this course?					

5=Excellent;      4=V. good;      3=Good;      2= Average and      1= Just satisfactory

Would you rate this course as one of the five best courses you have had so far? Yes/ no

If you have any further comments not covered by this questionnaire, please write below

### Feedback analysis

The feedback forms are collected and are deliberated by a committee comprising HOD, a Prof.; an Assoc. Prof. and an Asstt. Prof. nominated by the HOD. Depending upon the feedback, the HOD communicates the feedback to the respective faculty member who comes to know about their strengths and deficiencies and gives them a chance to enhance their teaching skills. The HOD gives necessary suggestions, guidance and advice for the areas where improvement is needed. The feedback remains strictly confidential between the HOD and the concerned faculty members so that the morale of the faculty does not get affected.

### 2.2.2 Quality of end semester examination, internal semester question papers, assignments and evaluation(14)

#### A. Process for internal semester question paper setting and evaluation and effective process implementation (3)

- **To ensure the quality of the internal semester question papers the following process is adopted**
  - Regular midterm exams are held in strict adherence to the academic calendar of the institute.
  - The question papers are set in such a way that the COs maps the questions asked.
  - The question papers are examined and verified by the HOD to ensure the standard of the paper and ensures that the COs of the course are covered. The questions papers are modified if HOD is not satisfied with standard requirements of the question paper.
  - The questions asked are well balanced to ensure that all the components such as knowledge, comprehension, application, analysis etc.are encompassed.
- **To ensure the quality of the assignments following procedure is adopted**
  - At least two assignments are given before midterm and after the midterm ( before the commencement of the major exam)
  - The assignments are designed to map the COs of the course.
  - The assignments are designed to cover both theoretical and numerical portion of the

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course.

- The assignment s covers knowledge, comprehension, application, analysis etc. of the course.
- The assignments may have questions designed by the faculty or an open book type.
- The evaluated assignments are returned to the students with the remarks of faculty so as to point out the mistakes.
- The marks earned by the students are displayed on the notice board for transparency so that the students come to know about the marks before final submission to the controller of examinations.

- **To ensure the quality of evaluation following procedure is place in the department**

- The scheme of evaluation and solution to the problems in the question papers are prepared by the respective faculty in advance.
  - The CO coverage and the marks allotted are recorded by the faculty. The
  - The evaluated answer books are returned by the faculty to the students. The Students feedback is received by the faculty regarding the evaluation of each question.
  - The students are encouraged to discuss any doubt or discrepancy regarding the evaluation.
  - The marks of the students are forwarded only when the students are satisfied with evaluation.
  - It is the statutory procedure of the institute to show the evaluated answer books to the students , once the students give in writing the that they have seen the answer books . The marks are forwarded to the concerned quarters.

- **To ensure the quality of the internal semester question papers, the following process is adopted:**

- Regular midterm exams are held in strict adherence to the academic calendar of the institute.
  - The question papers are set in such a way that the COs map with the questions asked.
  - The question papers are examined and verified by the HOD to ensure the standard of the question paper and ensures that the COs of the course are covered. The questions papers are modified if HOD is not satisfied with standard requirements of the question paper.
  - The questions asked are well balanced to ensure that all the components such as knowledge, comprehension, application, analysis etc. are encompassed.
  - To ensure the quality of evaluation, following procedure is in place in the department
  - The scheme of evaluation and solution to the problems in the question papers are prepared by the respective faculty in advance.
  - The CO coverage and the marks allotted are recorded by the faculty.
  - The evaluated answer books are returned to the students by the faculty after evaluation, both in midterm and major exam. The students are encouraged to discuss any doubt or discrepancy regarding the evaluation.
  - The marks of the students are forwarded to the academic & examination section only after the students are satisfied with evaluation.
  - No student is left without seeing his evaluated answer books.

## **B. Process to ensure questions from outcomes/learning level perspective (01)**

- For each subject, a tentative question list is prepared according to the COs.
- While setting the question paper, previous institute exam papers of at least three years are

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taken into consideration to avoid repetition of questions.

- While setting a question papers an attempt is made to follow Bloom's taxonomy. The questions are prepared according to the level of toughness (viz., analysing the problems, implementation of modern tools, formulating the problems etc.).

### **The questions asked are of three categories:**

- Questions of elementary level and can be answered by an average student, which require fundamentals of the course.
- Questions that need analysis and use of content covered as per syllabus.
- A few questions are based on advanced level. The solution of these questions/problems require certain amount of critical thinking, analysis and knowledge.

### **C. Evidence of COs coverage in class test / mid-term tests (5)**

- All class test and mid-term test papers cover all topics relevant to COs.
- A record of all class tests / mid-term tests / end semester test is maintained and submitted to the HOD for his perusal to ensure that all the topics are covered in these exams.
- A HOD/faculty member ensures that the questions asked previously (midterm) are not repeated so that major portions of COs are covered.
- All the faculty members are compulsorily required to maintain a question paper file (soft and hard copy) where all the question papers are saved so that question paper for end term is set without repeating of any question from midterm. This scheme helps to prevent repetition of questions and coverage of maximum COs.

### **D. Quality of assignments and its relevance to Cos (5)**

- Assignment issue and submission dates are announced by the respective faculty members.
- A minimum of two assignments are given for each subject.  
To ensure the quality of the assignments following procedure is adopted
- The assignments are designed to map the COs of the course.
- The assignments are designed to cover both theoretical and numerical portion of the course.
- The questions given are categorized to knowledge, comprehension, application, analysis, evaluation and synthesis levels.
- Faculty can choose the type of assignment to be given (questions/ open book test/ seminars or presentations)
- In the evaluation of assignment, the required feedback corresponding to each answer is given by the faculty, so that the student can understand the mistake.
- The faculty after submission of every assignment explains the solution of the questions in the class which enable the students to perform well in the final examination.
- For any genuine reason, if a student is unable to perform well in the given internal assessment tests or assignment, improvement test is given to him/her.
- If a student remains absent for all the tests conducted, they are marked as "Absent" in the result.
- Assignments are used as a tool for practice and evaluation is based purely on internal assessment.

**The assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based.**

### **(A) List of assessment tools & processes**

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### 1. Direct Assessment Methods:

- i. Continuous internal evaluation consisting of class surprise tests, mid-term examination, make-up tests, presentations and semester examination
- ii. Assessment is implemented by conducting a written scheduled midterm examination of 90 minutes duration having a weight age of 30% , class performance through assignments /interaction/tutorials/viva etc. having 10% and an end-semester major examination of 180 minutes with a weight age of 60%.

### 2. Indirect Assessment Methods:

- i. Course exit survey
- ii. Feedback from students
- iii. Placement and higher studies

### (B) The quality/relevance of assessment processes and tools used

Theory: A written examination covering the course contents taught having analytical involvement and other aspects as per the domain of the course with standard questions as per given time. The examinations are conducted as per a centrally notified schedule as the academic calendar.

Class Assessment: A continuous class assessment is done in the form of quiz, presentation and/or assignments.

Practical Exam: The lab exam is conducted by a committee formed by the Institute Examination cell along with the course coordinator.

Project: It gives students the opportunity to synthesize and apply the knowledge and analytical skills learned in the different disciplines. The project work is started in the seventh semester and continues on to eighth semester. Students are divided into groups of 3 or 4 and programme coordinator allots a project guide for each group. The final evaluation is done by the project evaluation committee which also consists of an external from sister departments.

Seminar: The students present a seminar presentation on a topic of their choice and approved the assigned seminar guide. Seminar is evaluated based on the presentation by the students before an evaluation committee consisting of four faculty members

### Attainment of Course Outcomes of all courses with respect to set attainment levels

#### (a) Course outcome attainment levels:

The attainment levels are fixed as under:

Assessment Method	Level	Attainment levels
Minor	1	50% of the students scoring more than 40% marks
	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks
Major	1	50% of the students scoring more than 40% marks



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	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks
	1	50% of the students scoring more than 40% marks
<b>Continuous Assessment</b>	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks
	1	50% of the students scoring more than 40% marks

**Table B.2.2.2a**

**(b) Course outcome Attainment calculation of a course  
Hydropower Engg (CIV-801)**

Assessment Tool	CO1	CO2	CO3	CO4
Minor (Average)	3	3	3	3
Major	3	3	3	3
Continuous Assessment (Assignment)	3	3	3	3
Overall average	3	3	3	3
Overall CO	3(level 1)			

**Table B.2.2.2b**

$$\text{Overall CO} = \frac{4 (\text{Minor})}{10} + \frac{5 (\text{Major})}{10} + \frac{1 (\text{Class Assessment})}{10}$$

Substituting in the above formula

$$\text{Overall CO} = \frac{4 (3)}{10} + \frac{5 (3)}{10} + \frac{1 (3)}{10} = 3$$

**(b) CO Attainment of all courses**

Course Code	Overall CO Attainment
PHY-101	2.65
PHY-102	2.75
HSS-101	3.0
CHM-101	2.75
CHM-101 L	2.75
MTH-101	2.25
CIV-102	2.4
PHY -201	3.0
PHY-202	3.0

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HU-201	2.3
CHM-201	2.8
CHM-201L	2.3
MTH-201	4.5
CIV-201	2.25
CIV-301	2.0
CIV-301(P)	2.3
CIV -302	2.47
CIV-302(P)	2.2
CIV-303	2.66
CIV-303 (P)	2.5
MTH-303	2.1
ELE-304	2.8
ELE-304	2.5
HSS-301	3.0
CIV-304	3.0
CIV-304(P)	2.8
CIV-300	3.0
CIV-401	2.0
CIV-402	2.04
CIV-402(P)	2.05
CIV-403	2.5
CIV-403 (P)	2.5
CIV-403 (SC)	2.5
CIV-404	3.0
CIV-404(P)	3.0
CIV-405	2.58
MTH-406	2.0
CIV-400	3.0
CIV-501	2.0
CIV-501(P)	2.35
CIV-502	2.4
CIV-502(P)	2.8
CIV -503	2.83
CIV -503(P)	2.8
CIV-504	2.81
CIV-505	2.3
CIV-500	3.0
CIV-511: E1	2.06
CIV-511: E1	2.93
CIV-511: E1	2.86
CIV-601	2.0
CIV-601(P)	2.0
CIV-602	2.76
CIV-602 (P)	3.0
CIV -603	2.8
CIV -603(P)	2.55
CIV -604	2.6
CIV-600	3.0
CIV -611: E1	3.0
MTH -611: E1	2.1
PHY-611: E1	3.0

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CIV-612: E2	2.05
CIV-612: E2	3.0
CIV-612: E2	2.6
CIV -701	3.0
CIV -701(P)	3.0
CIV -702	2.0
CIV --703	3.0
CIV -704	2.02
CIV --705	2.8
CIV --706	3.0
CIV --707	3.0
CIV-700	3.0
CIV -711: E1	2.83
CIV -711: E1	2.66
CIV -711: E1	2.72
CIV -711: E1	2.15
CIV -801	3.0
CIV -802	2.0
CIV --803	3.0
CIV -804	2.8
CIV -811: E1	2.4
CIV -811: E1	2.9
MTH -811: E1	2.1
CIV -812: E2	2.4
CIV -812: E2	2.05
CIV -812: E2	3.0

**Table B.2.2.2c**

**The expected level of attainment for each outcome:**

The expected level of each programme outcome PO and programme specific outcome PSO is given in table 2.12:

Expected level of attainment for each outcome

<b>Description of Programme outcome (PO) /Programme specific outcome (PSO)</b>	<b>Expected level of attainment</b>
<b>PO1:</b> Basic knowledge of contemporary Science and Technology along with Civil Engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.	2 – 2.5
<b>PO2:</b> Formulate and analyze a complex civil engineering problem supported by literature survey leading to substantial conclusions.	2 – 2.5
<b>PO3:</b> Solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.	2 – 2.5
<b>PO4:</b> Systematic approach includes design of experiments, analysis and	2 – 2.5

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interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.	
<b>PO5:</b> Develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modeling of complex civil engineering problems, dully identifying the limitations.	1.5 - 2
<b>PO6:</b> Utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.	1.5 - 2
<b>PO7:</b> Ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.	1.5 - 2
<b>PO8:</b> Adhere to professional ethics and norms, and respect human values while practicing the engineering profession.	1.5 - 2
<b>PO9:</b> Perform efficiently as a member or leader of a team or as an individual in diverse work environments	1 – 1.5
<b>PO10:</b> Deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.	1 – 1.5
<b>PO11:</b> Implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.	2 – 2.5
<b>PO12:</b> Inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments.	2 – 2.5
<b>PSO1:</b> Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software's towards solving technical problems requiring civil engineering interventions.	2 – 2.5
<b>PSO2:</b> Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.	1.5 - 2
<b>PSO3:</b> Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.	2 – 2.5

*Table B.2.2.2d*

**Example Evaluation:**

**Course taken: Hydro power Engg**

*Department of Civil Engineering N. I. T. Srinagar, J&K*

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**CO-PO Mapping Matrix**

COURSE		PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Hydro-Power Engg.	CO1	3	3	3	3		2	2	1.5				2
	CO2	3					2	2					2
	CO3	3	3	3	3		3	3					3
	CO4	3	3	3	3	2	3	3				2	3

*Table B.2.2.2e*

**CO-PSO Mapping Matrix**

COURSE		PSO1	PSO2	PSO3
Hydro-Power Engineering	CO1	2	3	3
	CO2	2	2	2
	CO3	3	3	3
	CO4	3	3	2

*Table B.2.2.2f*

**CO-Attainment Matrix**

Assessment Tool	CO1	CO2	CO3	CO4
Minor (Average)	3	3	3	3
Major	3	3	3	3
Continuous Assessment (Assignment)	3	3	3	3
Overall average	3	3	3	3
Overall CO	3(level 1)			

*Table B.2.2.2g*

**COURSE-PO Mapping Matrix**

COURSE		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Hydro-Power Engineering	Actual	3	3	3	3	2	2.5	2.5	1.5			2	2.5
	Attained	3	3	3	3	2	2.5	2.5	1.5			2	2.5

*Table B.2.2.2h*

Actual PO level is calculated by taking the average of POs from table 3.14.

Attained PO level is calculated by considering the COs to which the POs are related from table 3.14 and corresponding Co attainment from table 3.16

$$\text{Attained level for PO1} = \frac{\{(3 \times 3) + (3 \times 3) + (3 \times 3) + (3 \times 3)\}}{4 \times 3} = 3$$

Similarly actual PSO level and Attained PSO level are calculated.

**COURSE-PSO Mapping Matrix**

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COURSE		PSO1	PSO2	PSO3
Hydro-Power Engineering	Actual	2.5	2.75	2.5
	Attained	2.5	2.75	2.5

Table B.2.2.2i

Direct attainment is calculated by taking the averages of POs of all courses.

Attainment of POs for all courses

Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CHM-101	2.1	2	0.9	1	0.9	1	1	0.9	1.2			0.9
MTH-101	2	2	2.1	2		2	2	1				0.8
PHY-101	1.9	1.9	0.9	1	1	0.9	1	0.75	1			0.9
PHY-102(P)	1.8	2	0.9	1	0.9	1	1	0.8	1	1		0.9
CHM-201	1.9	2.1	1	1	0.8	1	0.9	1	0.9			0.8
MTH-201	2	2	2	2		1.9	2	1				1.1
PHY-201	2.1	2.2	1	0.9	1	1	1	1	0.9			1
PHY-202(P)	2	2	1	0.8	1	1	0.9	1	1	1		1
MTH-303	2.9	2.9	3	2	0.9	2.75	3	0.9				1.2
MTH-406	3	2.9	3	3	2	3	2.75	0.8				0.75
CIV-102	1.8	0.8	2			1		0.8	1			2
CSE	0.9		1		2	0.75		1				2
WST-107	1					1		1	1			1.1
CIV-201	3	2.8	2	2		2	2	2				2
CSE-201	1	0.9	2.2	1	3	1		1				2
MEC-201	1		2			1		1	1			2
ELE-304	2.1					0.9						1
ELE-304(P)	1.75					0.75						1.1
HSS-101								1	1	3		1.2
HU-201								2.1	3	2	2	1
HSS-301						1		2.2	2	2		1
CIV-301	3	2.75	2.8	3		0.9	1	1.2	1.1			0.75
CIV-301(P)	3	2.9	3	2.9		1.2	1.2	1	1	1.1	1	1
CIV-302	2.85	3	3	3		1	1	1.1				1.1
CIV-302(P)	3	3	3	3		0.75	1	1	0.75	1	1	1
CIV-303	3	2	2.8	2		1	0.9	1	1.1		1	1
CIV-303(P)	2.9	2	3	2		1	1	1.1	1	1	1.2	1
CIV-300	3	3	3	3	3	2	2	2	1	1	1	2
CIV-401	3	2.75	2.5	2.8		0.9	1	1	1		1	2.1
CIV-402	2.75	3	2.5	2.6		0.8	1	1	0.9		1.1	2
CIV-402(P)	3	2.5	3	3		0.8	1	1	1	1	1	2
CIV-403	2.1	1	1			1	1.2	1	1	0.75	1	2
CIV-403(P)	2	0.9	1			1	1	1.5	1.1	1	1	2
CIV-403(SC)	2.1	1				1.1	1	1.1	1	1	1	1.2

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CIV-404												
	3	3	3	3		1.2	2	1	1		1	1.2
CIV-404(P)	2.9	2.8	3	3		1.2	1	1	0.9	1	1	1.2
CIV-405	2.75	3	2.9	2.5		1	1	0.9	1	0.9	1	0.9
CIV-400	3	3	2.9	2.5	3	2	2	2	1	1	1	2
CIV-501	2.8	2.9	3	3		1.1	1.2	1	1	1.1	1	1.9
CIV-501(P)	3	3	3	2.75		0.9	1	0.9	1.1	1	1	1.9
CIV-502	2.75	2.75	3	3		1	1	1			1	2
CIV-502(P)	2.75	2.8	3	2.8		1.2	1	1	1.1	0.9	1.1	2
CIV-503	2.5	2.9	3	3		1.1	1.1	1.2			1	1.9
CIV-503(P)	3	3	2.8	3		1	1	1	1	1	1	2
CIV-504	3	3	2.75	2.9	2	0.9	2	1	0.75	1	0.9	2
CIV-505	2.9	2.6	3	3		1	1	1	1	1	2	2
CIV-500	3	2.8	3	2.75	3	2.2	2	2	1.1	1.2	1	2.1
CIV-601	3	3	2.75	3		1	1	1			1	3
CIV-601(P)	2.9	3	2.5	3		0.9	1	0.9	1	1.1	1	3
CIV-602	2.8	2.5	3	2.6		1.1	1.1	1	1.2	1	1	2
CIV-602(P)	3	3	2.6	3		1	1	0.75	1	1	1	2
CIV-603	2.9	3	2.6	3		0.8	1	1			1	3
CIV-603(P)	3	2.9	3	3	2	2	1	0.75	1	0.9	1	2.9
CIV-604	3	2.75	3	2.8	2	2.2	1	1	1	1	2	3
CIV-600	3	3	2.75	3	3	2	2	2	1.2	1	1	2.2
CIV-701	2	2	1.9	2		2	3	1			1	2
CIV-701(P)	2	1	0.9	1		2	2	1	1	1.1	1	2
CIV-702	3	3	2.8	3	2	1	0.9	1			2	3
CIV-703	2	2	2.2	2	1	1.1	1				1	2
CIV-704	3	3	2.9	3	2	1	1.5	1			2	3
CIV-705	2	3	3	2.8	2	0.75	1				1	2.1
CIV-706	2.75	3	3	2.8	2.5	1	1.2	1	3	3		2.2
CIV-707	2.9	2.9	3	3	2	0.9	1	1	3	3	3	2
CIV-700	3	2.9	3	3	3	2	2	2	1	1	1	2
CIV-801	2.8	3	2.75	2.9	2	2.75	3	1			2	2.75
CIV-802	3	3	3	2.9	2	3	3	1			2	3
CIV-803	3	2.75	3	3	2	2	1	0.9	3	3	3	1
CIV-804	3	3	2.9	3	2	2	1	1	2	2	1	2
CIV-511:E1	2	1	1	2	1	2.1	1	1.1			2	2.2
CIV-511:E1	1.9	2	2	2		2	1.2	1			1	2
CIV-511:E1	2	2	1.9	1.9	2	2.1	2	0.9			1	2.75
CIV-611:E1	2	1.9	2	2	1.8	2	2	0.9	1		2	2
MTH-611:E1	1.8	1.9	2	1.75	2	1	1	1			1	2.9
PHY-ELE:E1	2	2	1.9	2	1.8	2	2	1.1				2
CIV-612:E2	3	3	2.9	3	2	2	1	1.1	1		2	3
CIV-612:E2	2	1	0.9	1	1.8	2.2	3	1	0.9	1	0.9	2
CIV-612:E2	2	3	2.9	3	3	2.2	1	0.9			1	2.9
CIV-711	2	2.9	3	3	2	2	2	0.9	1		2	2.75

Criterion 2

CIV-711	3	3	2.75	2.9	3	1.9	1	0.9			2	2.75
CIV-711	2.5	3	3	3	3	1.75	1	1			2	3
CIV-711	3	3	2.75	2.75	3	2	1	1	1	1	2	2.5
CIV-811:E1	3	2.75	3	3	2	2	2	1.1			1	2
CIV-811:E1	2.8	2.75	3	3	2	2	1	1.2	1	1	1.1	2
MTH-811	2.75	3	3	3	3	2		1.1			1	2.2
CIV-812:E2	3	3	3	3	2	2.2	3	1	1	1.2	1	2.2
CIV-812:E2	2.1	2	1.8	2	1	2	2.9	1			2	3
CIV-812:E2	2	2	2.1	2	1	2	3	1			1	3
Direct Attainment	2.41	2.26	2.24	2.14	1.5	1.42	1.47	1.40	1.22	1.15	1.34	2.12
80% of Direct Attainment	1.928	1.808	1.792	1.712	1.2	1.136	1.176	1.12	0.976	0.92	1.928	1.808
20% of Indirect Attainment	0.459	0.467	0.370	0.520	0.450	0.481	0.481	0.499	0.481	0.483	0.478	0.424
Final Attainment	2.387	2.275	2.162	2.232	1.65	1.617	1.657	1.619	1.457	1.403	2.387	2.275

**Table B.2.2.2j**

Attainment of PSOs for all courses

Code	PSO1	PSO2	PSO3
CHM-101	1.5		
MTH-101	2	2	
PHY-101	1.3		
PHY-102(P)	1.5		
CHM-201	1.75		
MTH-201	2	2.2	
PHY-201	1.5		
PHY-202(P)	1.8		
MTH-303	2.9	3	1.5
MTH-406	3	2.5	1.5
CIV-102	1.5	2	
CSE	2	1.5	1.5
WST-107		2	1.5
CIV-201	2	1.5	2
CSE-201	3	1.2	
MEC-201	1.3	3	2
ELE-304			
ELE-304(P)			
HSS-101			1.5
HU-201			
HSS-301			
CIV-301	2.9	3	2
CIV-301(P)	2.9	3	2
CIV-302	2.5	3	2
CIV-302(P)	3	3	2
CIV-303	2	1.5	3



Criterion 2

CIV-303(P)	1.9	1.5	3
CIV-300	2.8	2	1.5
CIV-401	2.9	3	3
CIV-402	2.8	2.2	2.7
CIV-402(P)	3	2.3	2.8
CIV-403	3	2	3
CIV-403(P)	2.75	2	3
CIV-403(SC)	2	1.5	2
CIV-404	3	2	3
CIV-404(P)	3	2	3
CIV-405	2.8	2.2	3
CIV-400	2.7	2	1.5
CIV-501	2.7	3	3
CIV-501(P)	2.7	2.3	2.8
CIV-502	2.5	2.3	2.8
CIV-502(P)	2.9	2	3
CIV-503	3	2	2.8
CIV-503(P)	2.8	1.9	2.8
CIV-504	2.75	2	3
CIV-505	2.8	2	3
CIV-500	2.9	2	1.5
CIV-601	3	2.5	3
CIV-601(P)	2.9	3	2.9
CIV-602	2.9	2	3
CIV-602(P)	2.75	2	3
CIV-603	3	2	2.75
CIV-603(P)	3	3	3
CIV-604	2.75	2	2.75
CIV-600	3	2	1.5
CIV-701	3	1.5	3
CIV-701(P)	1.5		3
CIV-702	3	2.8	2.9
CIV-703	1.3		1.75
CIV-704	3	3	3
CIV-705	2.75	2.9	2
CIV-706	1.9	1.75	1.5
CIV-707	2	2	2
CIV-700	3	2	1.5
CIV-801	3	2.5	3
CIV-802	2.9	3	3
CIV-803	3	2	2
CIV-804	2	1.5	1.5
CIV-511:E1	2	2.2	2
CIV-511:E1	2.5	1.5	2
CIV-511:E1	2	1.5	2.5
CIV-611:E1	3	1.9	2
MTH-611:E1	2		
PHY-ELE:E1	1.5	2.2	2
CIV-612:E2	2.8	2.75	3
CIV-612:E2	2	3	2.8
CIV-612:E2	2.9	2.8	2.9
CIV-711	3	2.75	2.75
CIV-711	2.9	2.4	2.5
CIV-711	2.9	2.7	3
CIV-711	3	3	2.75
CIV-811:E1	3	3	2.75

Criterion 2

CIV-811:E1	2.9	2.9	2.3
MTH-811	2	2	2.9
CIV-812:E2	3	2.9	3
CIV-812: E2	2	3	2.9
CIV-812: E2	3	1.5	2
Direct Attainment	2.34	1.90	2.03
80% of Direct Attainment	1.872	1.52	1.624
20% of Indirect Attainment	0.441	0.451	0.490
Final Attainment	2.313	1.971	2.114

**Table B.2.2.2k**

**How results are documented and maintained**

The documents related to direct and indirect assessment tools to calculate the attainment of program outcomes are maintained by the department and are listed as follows:

Document Maintenances

Sr. No	Assessment Tool	File Name	Faculty Responsible
1	Theory Examinations	Final Award Roll File	Head of the Department
	Midterm Examination	Course file	Course coordinator
	End Semester Examination	Semester result file	Course coordinator/ Head of Department
2	Laboratory exams	Laboratory Evaluation file	Course coordinator/ Head of Department
3	Comprehensive viva voce	Comprehensive viva voce examination file	Project coordinator/Head
4	Major project	Project Evaluation File	Project coordinator/Head
5	Seminar	Seminar Evaluation File	Project coordinator/Head
6	Placement	Placement record file	Placement coordinator
7	Publication work	Student publication work file	Program coordinator
8	Graduate exit and other survey	Stakeholder Feedback file	Program coordinator

**Table B.2.2.2l**

**2.2.3 Quality of the students projects (18)**

**Process for identification of students projects**

The projects are divided into different major groups depending availability of the specialization of the faculty and more or less allotted to faculty on a uniform basis.

**A. Identification of project and allocation methodology to faculty members (2)**

- The student's project activity starts at the commencement of the 7th semester.

*Criterion 2*

- Students are divided into groups of 3-4 students.
- The students submit their area of interest for the project work so that the students explore and utilize their talent fully in order of preferences.
- Using principle of uniform distribution of students among the faculty available in different areas, students are assigned the faculty supervisor.
- The project proposals are framed by the students in consultation with the supervisor and discussion in the faculty group of the particular area of work and the finalized topics are submitted to the co-coordinator and HOD.

**Process for continuous monitoring of student projects**

- Students are directed to maintain a project diary to record the activities on day to day basis regarding the project work. The recorded included the details of their interactions with the project supervisor.

**Process to ensure the quality of student projects**

- The Project evaluation committee and the project guide together will analyse the nature of the project during the different stages of evaluation and make sure that the work is environment friendly, ensures safety, ethics and is cost effective.
- The projects are classified into different areas and their relevance to PO's and PSO's are identified to ensure its quality.

Flow diagram for allotment of project work

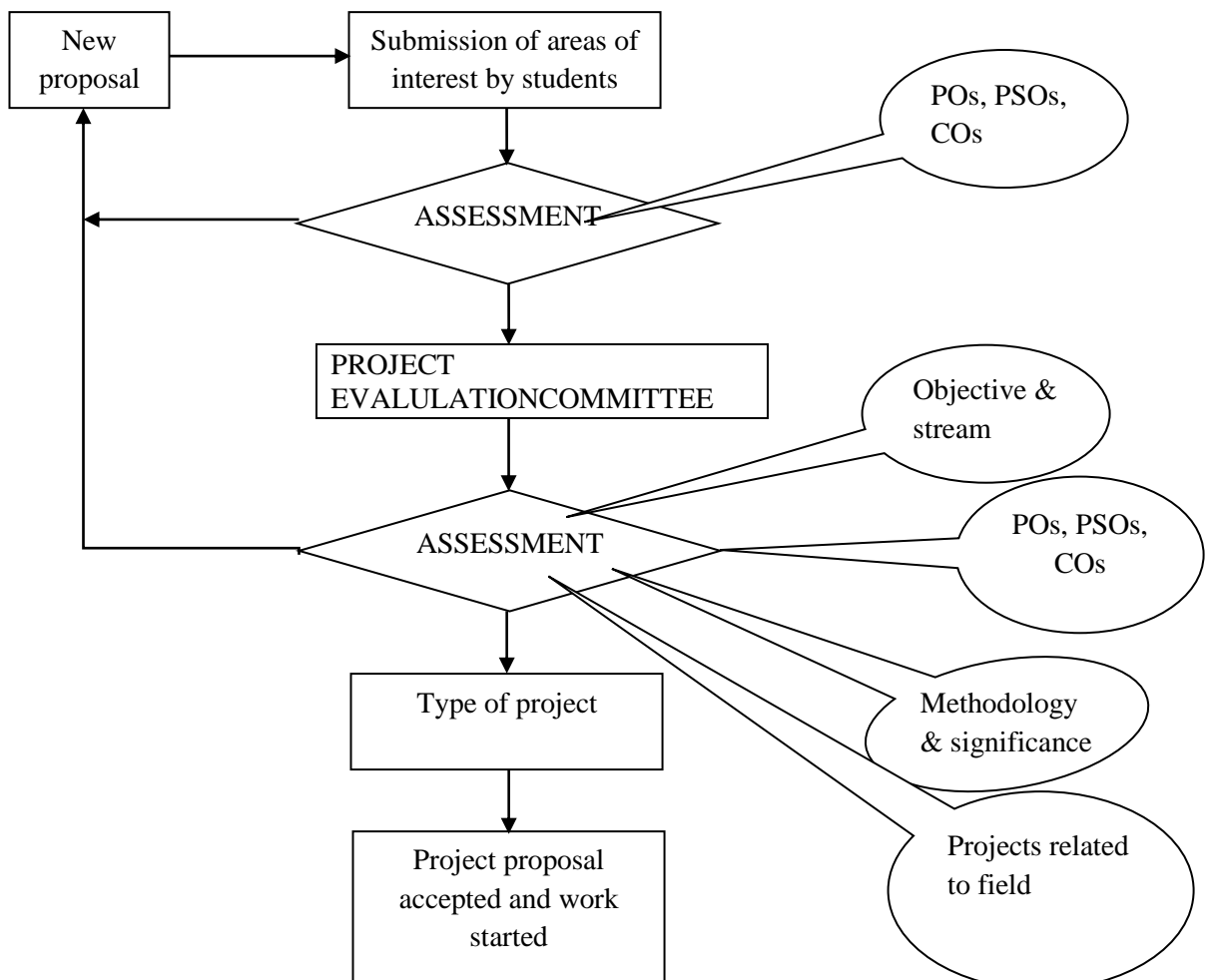


Figure B.2.2.3

**C. Type and relevance of the projects and their contribution towards of POs and PSOs (01)**

Project areas	Mapping with POs	Mapping with PSOs
Structural Engg	PO1 to PO12	PSO1 –PSO3
Geotechnical Engg	PO1 to PO12	PSO1 –PSO3
Transportation Planning & Engg	PO1 to PO12	PSO1 –PSO3
Water Resources & Env. Engg	PO1 to PO12	PSO1 –PSO3
Geology & Allied	PO1 to PO12	PSO1 –PSO3
Relevance to the POs and PSOs:	High	

Table B.2.2.3a

**Department Of Civil Engineering**

**National Institute Of Technology Hazratbal Srinagar**

**NOTICE FOR 7TH SEMESTER CIVIL ENGINEERING**

*Allotment of project/seminar supervisors for 7<sup>th</sup> semester civil engineering students*

**2014-2015**

S.No.	Name of Faculty member	Enr. No.	Name
1	<b>Dr. A. R. Dar</b>	09/2011	MUFTI MINAAM
		12/2011	FALAK ZAHOOR
		16/2011	MIR FAIZAN-UL-HAQ
		41/2011	SAQIB GULZAR
		88/2011	SYED MOHAMMAD
		142/2011	ARSALAN FAROOQ
		351/11	SANAD KUMAR SINGH
		352/11	ANOOP SINGH
		523/11	AJHARUDDEEN
		478/11	POONAM KUMARI
2	<b>Dr. J. A Naqash</b>	379/11	ASHUTOSH MISHRA

Criterion 2

		386/11	MADAN MOHAN SHARMA
		504/11	MANUVRAT SINGH
		462/11	KRISHNA KUMAR
		106/2011	MOHD. SAQIB BIN LATEEF
		117/2011	MIR USMAN RAUF
		76/11	Moumin Ali
		105/2011	AAMIR ASHRAF GANIE
		150/11	Ubaid-ul-Aman
3	<b>Dr. J.M. Bandy</b>	147/2011	MOHD. AHMAR MALIK
		149/2011	YAWAR AHAD SHAH
		17/2011	KHALID MANZOOR
		36/2011	NAVEED IQBAL
		407/11	AVINASH KUMAR
		458/11	SHUBHAM SRIVASTAV
		273/11	VERINDER SINGH KUNDAL
		383/11	SAHIL UPPAL
4	<b>Dr. J. A. Bhat</b>	48/2011	VAQAS HUSSAINSHEIKH
		64/2011	SABAHAT ALTAF
		67/2011	AMANULLAH
		60/2011	SHEIKH MOHD.AARIF
		459 /11	JAYVARDHAN RAJ
		490/11	DIVAYANSHU PANDEY
		229/11	AKASH BHAGAT
		460/11	MOHD. IRFAN ANWAR
5	<b>Dr.M.A.Tantary</b>	10/2011	IRFAN YOUSUF
		59/10-11	SYED MUDASIR GULZAR
		514/11	SRENDRA SINGH
		72/2011	IRFAN AHMAD
		07/11	Tawseef Ahmad
		528/11	NEERAJ SONI

Criterion 2

6.	<b>A. A. Masoodi</b>	21/2011	ADIL YAQOOB SHAH
		26/2011	AAQUIB HASSAN
		87/2011	SUHAIL AHMAD AHANGER
		506/11	GAURAV SRIVASTAVA
		529/11	ATUL KUMAR PANDEY
		415/11	BUDHI PRAKASH
		293/11	ALOK KUMAR JHA
		427/11	NEERAJ KUMAR
7	<b>Er. F. A Mir</b>	310/11	DEVENDR SINGH
		189/2011	ARSHDEEP SINGH
		63/2011	WAJAHAT LATIEF LONE
		328/11	RAVENDRA SINGH
		336/11	ANOOP KUMAR YADAV
		442/11	PULAKIT
8	<b>Dr. M.Y.Shah</b>	388/11	RAHUL SHUKLA
		511/11	SANKET RAWAT
		496/11	ANINDYA SHUKLA
		06/2011	PEERZADA UZAIR
		84/2011	MUDASIR UL NAZIR
		08/2011	SAJAAD HASSAN
		73/2011	SYED IRFAN SIMNANI
9	<b>Dr. B.A.Mir</b>	476/11	MAHENDRA SHARMA
		487/11	SARTHAK SHRIVASTAVA
		436/11	ADITYA SHARAN
10	<b>Dr.M.S.Mir</b>	31/2011	SUHAIL RASHID
		23/2011	AHMED YEHYA
		91/2011	IDREES MOHD.
		92/2011	ASLAM AZIZ
		256/11	MANISH KUMAR

Criterion 2

		261/11	SHIV KUMAR
		262/11	MAHENDRA SINGH
		297/11	RITU KUMARI
11	<b>Dr. M. A. Lone</b>	98/2011	BHARAT BHUSHAN
		184/2011	ABHISHEK KUMAR
		164/2011	NIKHIL KANWAL
		35/2011	UMAR FAROOQ
		107/2011	NIYAZ ALI
		112/2011	MOHD. AZHAR RAFIQ
12	<b>Dr. M. A. Ahangar</b>	191/2011	AKASH MALGOTRA
		288/11	VISHVENDRA SINGH
		207/2011	ABHINAV VERMA
		212/2011	VIKAS KUMAR
		451/11	ABHISHEK KUMAR SINGH
		170/2011	V K ANGRAL
		175/2011	SANDEEP THAKUR
4	<b>Dr. A.Q.Dar</b>	269/11	MOHAMMAD AYAZ
		465/11	MOHAMMAD ISHAN ALI
		434/11	ANSHUL SAINI
		209/2011	SAJAD MALIK
		319/11	PRAVEEN PRATAP SINGH
		425/11	SAHEERAM MEENA
		454/11	PANKAJ KUMAR
15	<b>Er.Danish Ahmad</b>	215/2011	SANDEEP KUMAR
		218/2011	GIRRAJ SINGH
		206/2011	NITIN KUMAR BHASIN
		317/11	ABHISHEK KUMAR
		338/11	JAI HIMANSHU
		254/11	PANKAJ BHARTI

Criterion 2

		294/11	KAILASH BAVORIA
		468/11	HARMAN JEET
16	<b>Er.R.R.Mir</b>	228/11	GOURAV KUMAR
		190/2011	TABISH ILAHI MALIK
		196/2011	VINAY CHANDRA
		491/11	ARUD KUMAR
		423/11	ANAND GUPTA
		365/11	ABHISHEK
		85/2011	SAJID RASHID
		109/2011	ANWAR ANJUM
17	<b>Dr. S.K.Bukhari</b>	27/2011	AAQIB AMIN
		30/2011	NADEEM SHAFI HAFIZ
		39/2011	MINAAM NAZIR MALIK
		46/2011	ABRAR UL HASSAN
		483/11	AMAN KUMAR
		281/11	ARVINDER SINGH
		224/11	SHIVANSH PURWAR
		237/11	KUNDAN SINGH
		362/11	LATESH MOTEN
		169/2011	SUMEET SINGH

**Table B.2.2.3b**

**Department Of Civil Engineering**  
**National Institute Of Technology Hazratbal Srinagar**  
**2015-2016**

*Allotment of project/seminar supervisors for 7<sup>th</sup> semester civil engineering students:*

S.No.	Name of Faculty member	Enr. No.	Name
	<b>Dr. A. R. Dar</b>	07/12	Mir Atif
		308/12	Amer Ilyas Rather



Criterion 2

1		359/12	Syeda Syed
		255/12	Sushmit K. Choudary
		257/12	Ashish Singh Chib
		258/12	Shubam Pawar
2	<b>Dr. J. A Naqash</b>	13/12	Waseem Maqbool
		38/12	Zeeshan Manzoor
		43/12	Bashir Ahmad
		73/12	Burhan Nabi
		327/12	Muneeb ul Bashir
		331/12	Rasiq Ahmad Malik
		338/12	Umer Bashir
		376/12	Rouf Ahmad Lone
3	<b>Dr. J.M. Bandy</b>	39/12	Mudasir Rashid
		213/12	Gowhar Maqbool
		360/12	Syed Rayid Andrabi
		128/12	Sahil Chalotra
		132/12	Harshit Maheshwari
		58/12	Ajay Singh
		10/12	Tushar Kumar Singh
4	<b>Dr. J. A. Bhat</b>	44/12	Sajid Ali
		214/12	Musadiq Hussain
		341/12	Mohammad Ayub
		348/12	Syed Asim Iftikhar
		349/12	Soniya Sangral
		382/12	Kiranjeet Singh
		450/12	Jitendra
		469/12	Aparjita Tiwari
5	<b>Dr.M.A.Tantary</b>	66/12	Mohammad Yasir
		355/12	Mohammad Abu Bakar

Criterion 2

		40/12	Iqbal Hussain
		385/12	Jagteshwar Singh
		177/12	Divyakant Verma
		185/12	Ashish Kumar
		209/12	Gulshan Kumar
		104/12	Ashish Verma
6	<b>Er. A. A. Masoodi</b>	180/12	Syed Irfan Ali Bukhari
		250/12	Vikram Chauhan
		133/12	Sandeep Panwar
		220/12	Aaqib Bashir
		265/12	Aishan Shafi Lone
		269/12	Kifayat Ramzan
		585/12	Ravindra Vikram
		600/12	Malkeet Chand
7	<b>Er. F. A Mir</b>	03/12	Rohit Attri
		100/12	Rajesh Banchra
		282/12	Ketan Singhai
		336/12	Taran Jandyal
		283/12	Deepak Kumar
		296/12	Martand Pratap
8	<b>Dr. M.Y.Shah</b>	443/12	Vibhash Kumar
		461/12	Lalit Saurav
		548/12	Shubhankar Roy
		573/12	Girish K. Agarwal
		298/12	Shubham Yadav
		301/12	Rebati Kalsotra
9	<b>Dr. B.A.Mir</b>	11/12	Faizan Amin
		14/12	Waqar- ul- Hassan
		19/12	Basit Majid Shah

Criterion 2

		186/12	Dulee Chand Saini
		31/12	Naveen Singh
		59/12	Ram Babu
10	<b>Dr.M.S.Mir</b>	535/12	Ankit Jain
		539/12	Shubham Pathak
		540/12	Sandeep K. Gupta
		111/12	Manish Singh
		15/12	Amir Yousuf
		152/12	Bilal Ahmad Lone
		158/12	Owais Bin Ahad
		351/12	Mudassir Ahmad

**Water Resources & Env. Engg**

11	<b>Dr. M. A. Lone</b>	82/12	Ayushmaan Sharma
		88/12	Sahil Gulab
		99/12	Ayush Goyal
		146/12	R.Vamsi Krishna
		199/12	Asif Ahmad Itoo
		204/12	Waseem Ahmad
		217/12	Mushtaq Ahmad Dass
		222/12	Adnan Manzoor
12	<b>Dr. M. A. Ahangar</b>	406/12	Aman Kumar
		412/12	Chetan Kumar
		427/12	Nikhil Gaur
		436/12	Lakshya Kumar
		147/12	Sanjay Meena
		154/12	Satish Singh
		550/12	Sahaja.J
		548/12	Gaurav Kumar Pandey
13	<b>Dr. A.Q.Dar</b>	26/12	Ajaz Iqbal

Criterion 2

		596/12	Priyanshu Kumar
		601/12	S. Deepak Sai
		05/11-12	Amanpreet Singh
		533/12	Shubham Pareek
		168/12	Udai Singh Meena
		211/12	Arpit Shukla
		310/12	Ankush Mangoch
14	<b>Er.R.R.Mir</b>	192/12	Gaurav Shakrawal
		437/12	Shashank Singh
		460/12	Nirbhay Singh
		531/12	Rishab Garg
		315/12	Razia Sultan
		381/12	Vikramjeet Singh
		330/12	Adil Hamid
16	<b>Er.Danish Ahmad</b>	441/12	Krishna Gopal
		463/12	Vaibhav Khandelwal
		483/12	Rajesh Kumar
		494/12	Dharmendra Kumar
		591/12	Naval Katoch
		612/12	Amit Jain
17	<b>Dr. S.K.Bukhari</b>	41/12	Tsering Angchuk
		117/12	Touqeer Ahmad
		127/12	Anurag Chahar
		357/12	Mohammad Talha
		408/12	S. Sai Karthik
		438/12	Rahul Agarwal
		379/12	Naveed Ahmad
		521/12	Danish Ahmad

**Table B.2.2.3b**

*Criterion 2*

**Note:** - Students are advised to meet their allotted supervisors and finalize the group, topic for seminar and projects respectively. And same should be conveyed to the undersigned by 15th September 2015 positively in the office of CED, so that date for seminar presentation is fixed.

DR. M.Y.SHAH

Coordinator Project/Seminar

**Department Of Civil Engineering**

**National Institute Of Technology Hazratbal Srinagar**

*Allotment of project/seminar supervisors for 7<sup>th</sup> semester civil engineering students:*

**2016-2017**

S.No.	Name of Faculty member	Enr. No./13	Name
1	<b>Dr. A. R. Dar</b>	36	Sana Fayaz
		80	Mohammad Shoaib Mir
		4	Faizan Siddiqui
2	<b>Dr. J. A Naqash</b>	12	Ishfaq Ahmad Teli
		14	Aadil Nabi Nath
		15	Asim Mustaq
		11	Ishfaq Mohi ud Din
		21	Nayeem Gulzar Najar
		82	Shashwat Sikawar
		97	Shashank Katiyar
		94	Deepshikha Sani
		109	Kasurjulla Mahendra
3	<b>Dr. J.M. Bandy</b>	18	Aamir Mubarak
		19	Mudasir Ahmad Hajam
		33	Banwari Lal
		81	Shri Bhagwani Saini

Criterion 2

4	<b>Dr. J. A. Bhat</b>	61	Yasir Farooq Beig
		5	Mohd Aslam Kumar
		46	Assif Khaliq
		60	Vinita Mehar
		79	Ankit Gupta
		48	Mohammad Amin Kumar
5	<b>Dr. M.A.Tantary</b>	68	Aijaz Ahmad
		34	Niket Gupta
		40	Sanjeev Raushan
		28	Ghulam Haider
		49	Amrendra Pratap Rai
		107	Vivek Upadhyay
6	<b>Er. A. A. Masoodi</b>	114	HJimanshu Choudhry
		115	Sanjeev Kumar
		93	Vishal prakash
		65	Arvind Singadia
		71	Princa Kumar
7	<b>Er. F. A Mir</b>	8	Mumtaz Ahmad
		9	Aadil Nisar Wani
		26	Sheikh Azeem Hafiz
		03	Raima Tariq
		30	Mujeeb ul Haq
		44	Mujtahid Mamoon Ali
		45	Malik Kamila Mustaq
8	<b>Dr. M.Y.Shah</b>	7	Nadia Mubarak
		13	Hafsah Ahmad
		59	Afeer Jalal Khan
		76	Girija Shankar Sharma
		91	Akash Verma

Criterion 2

		95	Akshay Janway
9	<b>Dr. B.A.Mir</b>	16	Varun Kumar
		22	Imtisal Hussain sofi
		23	Vijay Kumar
		108	Ramehandra Potalia
		20	Rahul Kumar
10	<b>Dr.M.S.Mir</b>	88	Nihal Pandey
		90	Avichal Chandra
		86	Anurag Sharma
		39	M. Amine Kumar
		85	Rajesh Kumar
		25	Thupstan Tserng
		101	Manish Kumar
		105	Anurag Pratap Singh Chouhan
		64	Rampal
11	<b>Dr. M. A. Lone</b>	1	Anjali Dua
		2	Shivram Verma
		29	Umesh Mahor
		39	Rahul Verma
		70	Abhinav Kumar
		75	Robby Lal
12	<b>Dr. M. A. Ahangar</b>	54	Manan Shabir Sherwani
		52	Shaeq Showkat
		56	Arslan Amin
		51	Mir Dawar Habib
		98	Manoj Karela
		100	Devesh Kumar
13	<b>Dr. A.Q.Dar</b>	106	Shivam Tiwari

Criterion 2

		27	Mohd Anjum
		31	Heemant Meena
		63	Pradeep Kumar
		72	Abhishek Kumar Gaautam
		78	Dilip Kanada
14	<b>Er.R.R.Mir</b>	87	Amit Ranjan
		92	Sanjay Kumar
		96	Rahul Churey
		99	Heena Rawat
		103	Ashish Kumar
		110	Amresh Kumar
		104	Ashwani Kumar
15	<b>Er.Danish Ahmad</b>	89	Abdullah Ansari
		116	Mohd Altaf Shah
		57	Hakeem Nadeem Sarwai
		111	Rohit Kumar
		112	Jitendra Singh
16	<b>Dr. S.K.Bukhari</b>	10	Moin ul Islam`
		43	Moonis ul Islam Matoo
		66	Shubham Jadija
		74	Vinod Kumar Sharma
		84	Shubam Badgal
		102	Devkaran

**Table B.2.2.3c**

**Note:** - Students are advised to meet their allotted supervisors and finalize the group, topic for seminar and projects respectively. And same should be conveyed to the undersigned by 10th January 2017 positively in the office of CED, so that date seminar presentation is fixed.

**DR. M.Y.SHAH**(Coordinator Project/Seminar )

**Distribution of students among various Areas Based on Faculty Strength:**

	<b>Faculty Strength</b>	<b>No of Students for BATCHES</b>
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Criterion 2

		2011-2015	2012-2016	2013-2017
Structural Engineering	07	49	45	33
Geotechnical Engineering	03	19	18	18
Transportation Engineering & Planning	01	08	08	10
Water Resources & Env. Engg	05	36	37	30
Geology & Related Areas	01	08	08	06

Table B.2.2.3d

**C. Project related to industry (02)**

- The students are encouraged to take up the industry related projects. This objective is attained by choosing a problem from the industry where the students have undergone the practical training at the lower semester. During the practical training the students encounter different problems which they choose as their final year project.

**D. Process for monitoring and evaluation (02)**

- The supervisor maintains a diary regarding the work carried out by the students working under him. The supervisor interacts periodically usually at-least once a week with the students to determine the progress and to evaluate the contribution of each student. Thus a fool proof monitoring and evaluation is ensured.
- The departmental project evaluation committee meets twice in 7th and 8th semester to assess the progress of the projects.

**E. Process to assess individual and team performance (03)**

- As has been stated above the students remain in constant touch with the supervisor. During the interaction the supervisors enquires from the group members about the progress of the work. This process helps the supervisor to determine the performance of the individual and the team. The students are awarded marks during this interaction also by the supervisor so that none of the students lags behind and develop a quality to work individually and with the team.

**F. Quality of completed projects and Evaluation (05)**

- In order ensure the quality work, a departmental committee is constituted comprising of all supervisors as members and HOD as chairman. At the end of 7th semester students are advised to present the work completed so far in front of the committee. The deficiencies are pointed out to the students and they get tuned for the completion of the targeted topic for the project.

The final exam of the project work is held at the end of the 8th semester. The students submit a well-documented Project Report duly certified by the supervisor in a hard bound form.

A committee constituted by the HOD and approved by the director, comprising of the departmental members, an external member of the sister department (nominated by the director) and HOD as chairman examines project.

### Criterion 2

The composition of the Project Evaluation committee is as under:

1. HOD Chairman
2. A Prof. from a sister department of the Institute
3. An expert preferably from outside the Institute
4. One Sr. Faculty member of the Department
5. Concerned supervisor

A PPT presentation is given by the students one by one in the group in front of the committee.

The presentation is followed by the question - answer session and the examination of the prototype developed. The committee members record the marks awarded to each student and final award is arrived at.

- The projects are evaluated by the committee according to the following scheme.

Criteria	Marks
Fulfillment of POs, PSOs & COs	10
Report/contents etc. Design /Supervisor assessment	40
Presentation /Q&A	30
Knowledge of the work done	20
<b>Total</b>	<b>100</b>
<b>Project Evaluation Committee Criteria for Evaluation</b>	

*Table B.2.2.3e*

### G. Evidences of papers published / Awards received by projects etc. (03)

- Project reports are available in the department and with the respective supervisor faculty members. Papers published are with the faculty members as evidence

## 2.2.4 Initiatives related to industry interaction (06)

### A. Industry Oriented Activities (01)

The department has a strong relationship and interaction with the construction industry through consultancy and has been contributing in a very strong way for the technology development and addressing of complex problems.

### B. Industry involvement in the program design and curriculum(02)

As has been stated in the process for designing the program curriculum (2.1.1) an important feedback is sought from industry where the students get employed so that the performance of the students is enquired. Depending upon the performance as revealed by the feedback of the employer necessary changes are made in the curriculum

<p align="center"><b>Civil Engineering Department</b>  <b><u>National Institute of Technology, Srinagar</u></b>  <b>INDUSTRY FEEDBACK FOR CURRICULUM DESIGN</b></p>				
<p>The purpose of this survey is to obtain Employer’s input on the quality of education of undergraduate programs in NIT, Srinagar. Your sincere cooperation would enable us to improve the quality of our graduates as per your requirements</p>				
Name of Company/ Organization				
Mailing address				
Sector Private/Public/Academia				
What are the pertinent employability skills to stay updated in current industry trends and thereby improve the quality of the undergraduate program?		Logical Thinking	Good Aptitude	Excellent Communication
<p>Rate the NIT Srinagar Graduates working in your organization using the following criterion.  <b>Put tick mark Knowledge, Skills, Abilities, Attitude and other Attributes expected out of NIT Srinagar graduates.</b></p>				
No.	Overall, are you satisfied with	Excellent (3)	Good (2)	Satisfied (1)
1	Capacity for development and analysis of engineering problems and formulation of appropriate solutions, retaining professional and ethical responsibilities.			
2	Aptitude for self-education, ability to learn new skills and a clear appreciation for the value of life-long learning to update professional knowledge.			
3	Understanding professional engineering solutions for sustainable development and their application in global, national and societal contexts.			
4	Competence for acquiring new skills and applying them in research and development.			
5	Fundamental knowledge in mathematics and science and professional fluency in English both communicative and technical forms.			
6	Development of management and leadership skills that enable successful function of multi-disciplinary teams.			

**Table B.2.2.4a**

Criterion 2

**C. Industry involvement in the partial delivery of any regular courses for students(02)**

Industry people who are stalwarts and are predominantly involved in particular areas of works in the field have been invited from time to time to teach some specific parts of syllabi of some courses like 5th Sem HEPMS etc.

**D. Impact analysis of industry institute interaction and actions taken thereof (01)**

The industry institute interaction has been made possible in various ways. The students have been taken for technical visits and shown live projects under execution, the industry people have been invited for lectures on specific projects and works and students have been involved in the various consultancy/ testing works received from industries. Industrial trainings of students are also conducted. The impact of the same has been assessed during the evaluation processes and getting feedback from the students.

**2.2.5 Initiatives related to industry internship/ summer training (09)**

**A. Industry training /tours for students (02)**

Industrial training/tours are organized at 7th and 8th semester levels when the students are fully acquainted with the different streams of mechanical engineering. Following 1 day tours were organized in 2015 to 2017

S.No.	Year-wise Details of Technical Tour with semester/batch and project name/ date		
	2015	2016	2017
1	5th. Sem. 2013 Batch- Micro-hydel Project at Pahagam; July 2015	3 <sup>rd</sup> Sem 2014 batch visited Upper Sindh Hydel Project in May 2016	8 <sup>th</sup> Sem 2013 batch visited Flyover project Srinagar in May2017
2	7 <sup>th</sup> Sem 2012 batch visited Uri Hydropower Project, in May 2015	-	7 <sup>th</sup> Sem 2014 batch visited Srinagar Flyover Project in Oct.2017

*Table B.2.2.5a*

**B. Industrial / internship/ summer training of more than two weeks and post training assessment (03)**

It constitutes an important component of the curriculum of the department. Students are deputed to projects of their interest and convenience during the winter vacation.

**Details of the Students who have undergone Industrial Training of more than 2-weeks Batch2013**

S.No.	Name of the student	En. No.	Particulars of Practical Training
01.	Anjali Dua	01/13	Flyover from Bikhram Chowk to Gandhinagar ,JKERA
02.	Shivram Verma	02/13	Flyover from bikhram chowk to ghandhinagar ,JKERA
03.	Raima Tariq	03/13	Flyover Rambhag JKERA
04.	Faizan Siddiqui	04/13	DMRC PHASE III

Criterion 2

05.	Mohd Aslam Kumar	05/13	Economic reconstruction agency Rambhag Srinagar JKERA
06.	Nadia Mubarak	07/13	jk Flyover Rambhag era
07.	Mumtaz Ahmad	08/13	flyover from bikhram chowk to ghandhinagar ,jk era
08.	Aadil Nisar Wani	09/13	Flyover rambhaga Jk er
09.	Moin ul Islam`	10/13	Flyover Rambhag jk era
10.	Ishfaq Mohi ud Din	11/13	Flyover rambhaga Jk er
11.	Ishfaq Ahmad Teli	12/13	Proposed simply supported psc girder bridge over river r&b vailoo
12.	Hafsah Ahmad	13/13	Flyover Rambhag Jk era
13.	Aadil Nabi Nath	14/13	Span girder over river jelhum ananthnag ,r&b ananthnag
14.	Asim Mustaq	15/13	Construction of new bridge ganderbal jkpcc
15.	Varun Kumar	16/13	flyover from bikhram chowk to ghandhinagar ,jk era
16.	Aamir Mubarak	18/13	Dmrc phase iii
17.	Mudasir Ahmad Hajam	19/13	Flyover rambhaga Jk er
18.	Rahul Kumar	20/13	flyover from bikhram chowk to ghandhinagar ,jk era
19.	Nayeem Gulzar Najjar	21/13	Proposed simply supported psc girder bridge over river r&b vailoo
20.	Imtisal Hussain sofi	22/13	Proposed simply supported psc girder bridge over river r&b vailoo
21.	Vijay Kumar	23/13	Rising and maintenance of ash duke Ntpc vidyanchal
22.	Santosh Kumar	24/13	Redevelopment of police station delhi rites limited
23.	Thupstan Tserng	25/13	DELHI METRO RAIL COORPORATION
24.	Sheikh Azeem Hafiz	26/13	Flyover rambhaga Jk er
25.	Mohd Anjum	27/13	Proposed simply supported psc girder bridge over river r&b vailoo
26.	Ghulam Haider	28/13	Flyover rambhaga Jk er
27.	Umesh Mahor	29/13	Redevelopment of police station delhi rites limited
28.	Mujeeb ul Haq	30/13	Flyover rambhaga Jk er
29.	Heemant Meena	31/13	DMRC phase iii
30.	Banwari Lal	33/13	Delhi Metro Rail Cooperation
31.	Niket Gupta	34/13	
32.	Sana Fayaz	36/13	DMRC phase iii
33.	Rahul Verma	39/13	
34.	Sanjeev Raushan	40/13	
35.	Moonis ul Islam Matoo	43/13	Flyover rambhaga Jk er
36.	Mujtahid Mamoon Ali	44/13	Flyover Rambhag Jk era
37.	Malik Kamila Mustaq	45/13	DELHI METRO RAIL COORPORATION
38.	Assif Khaliq	46/13	Flyover Rambhag jk era
39.	Mohammad Amin Kumar	48/13	Construction of road ramkay infra structure awantipora
40.	Amrendra Pratap Rai	49/13	

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41	Mir Dawar Habib	51/13	Flyover rambhaga Jk era
42.	Shaeq Showkat	52/13	
43..	Manan Shabir Sherwani	54/13	
44.	Arslan Amin	56/13	Flyover rambhaga Jk era
45.	Hakeem Nadeem Sarwai	57/13	
46.	Afeer Jalal Khan	59/13	Flyover Rambhag Jk era
47.	Vinita Mehar	60/13	
48.	Yasir Farooq Beig	61/13	Dmrc phase iii
49.	Pradeep Kumar	63/13	flyover from bikhram chowk to ghandhinagar ,jk era
50.	Rampal	64/13	Construction of building RSRDCC rajasthan
51.	Arvind Singadia	65/13	Construction of building RSRDCC rajasthan
52..	Shubham Jadija	66/13	Dmrc phase iii
53.	Aijaz Ahmad	68/13	Proposed simply supported psc girder bridge over river r&b vailoo
54..	Abhinav Kumar	70/13	Construction of cement concrete pavement pwd jhunjhunu
55.	Princa Kumar	71/13	Construction of cement concrete pavement pwd jhunjhunu
56.	Abhishek Kumar Gaautam	72/13	Construction of road swanky infrastate energy limited bihar
57.	Vinod Kumar Sharma	74/13	Construction of road swanky infrastate energy limited bihar
58.	Robby Lal	75/13	Construction of cement concrete pavement pwd jhunjhunu
59.	Girija Shankar Sharma	76/13	Dmrc phase iii
60.	DilipKanada	79/13	Analysis and design of Superstructure of main line value building l&t GULF
61.	Ankit Gupta	80/13	Dmrc phase iii
62.	Mohammad Shoaib Mir	78/13	Dmrc phase iii
63	Shri Bhagwani Saini	81/13	Construction of cement concrete pavement pwd jhunjhunu
64..	Shashwat Sikawar	82/13	Metallurgical and material handling new delhi l&t
65.	Shubam Badgal	84/13	OSC UP
66.	Rajesh Kumar	85/13	DELHI METRO RAIL CORPORATION
67.	Anurag Sharma	86/13	
68.	Amit Ranjan	87/13	
69.	Nihal Pandey	88/13	OSC UP
70	Abdullah Ansari	89/13	Construction of road swanky infrastate energy limited bihar
71.	Avichal Chandra	90/13	
72..	Akash Verma	91/13	DELHI METRO RAIL CORPORATION
73.	Sanjay Kumar	92/13	Rising and maintenance of ash duke Ntpc vidyanchal
74.	Vishal prakash	93/13	
75.	Deepshikha Sani	94/13	Construction and design of structure at essar steel india limited gujrat

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76.	Akshay Janway	95/13	Redevelopment of police station delhi rites limited
77..	Rahul Churey	96/13	Tawa project circle madya pradesh
78.	Shashank Katiyar	97/13	Construction and design of structure at essar steel india limited gujrat
79.	Manoj IKarela	98/13	Construction of building RSRDCC rajasthan
80	Heena Rawat	99/13	Dmrc phase iii
81.	Devesh Kumar	100/13	Dmrc limited
82.	Manish Kumar	101/13	Construction of flyover patna,BRPNN
83.	Devkaran	102/13	Dmrc limited
84.	Ashish Kumar	103/13	Construction of flyover patna,BRPNN
85.	Ashwani Kumar	104/13	Construction of flyover patna,BRPNN
86.	Anurag Pratap Singh Chouhan	105/13	OSC UP
87.	Shivam Tiwari	106/13	Construction of flyover patna,BRPNN
88.	Vivek Upadhyay	107/13	Rising and maintenance of ash duke Ntpc vidyanchal
89.	Ramehndra Potalia	108/13	Construction of underground station and tunnel ,j kuman delhi
90.	Kasurjulla Mahendra	109/13	Dmrc phase iii
91.	Amresh Kumar	110/13	Dmrc phase iii
92.	Rohit Kumar	111/13	Rising and maintenance of ash duke Ntpc vidyanchal
93.	Jitendra Singh	112/13	Rising and maintenance of ash duke Ntpc vidyanchal
94.	HJimanshu Choudhry	114/13	Construction of underground station and tunnel ,j kuman delhi
95.	Sanjeev Kumar	115/13	Dmrc phase iii
96.	Mohd Altaf Shah	116/13	Flyover Rambhag Jk era

**Table B.2.2.5b**

**Details of the Students who have undergone Industrial Training of more than 2-weeks- Batch 2014**

S.No	Name Of The Student	En.No	Particulars of Practical Training
1.	Haris Wajeeh Mir	01/14	Construction of bridge, Ganderbal, JKPDC
2.	Ms.Suhaila Anjum	03/14	Construction of 96 flats along with community and marriage hall, JKPC
3.	Ms.Seerat Malik	04/14	JKPCC Limited Srinagar
4.	Easeel Ahmad Dar	05/14	Construction of auditorium hall, R and B Srinagar
5.	Ms.Faakhirah Rashid Mir	07/14	JKPCC Limited Srinagar
6.	Ubaid Hyder Mir	08/14	Construction of Flyover expressway corridor by ERA
7.	Majid Mohi-Ul-Din	09/14	JKPCC Limited Srinagar
8.	Dachen Dawa	11/14	Construction of boys hostel gmc, Jammu, JKPC
9.	Shahiq Ahmad Wani	12/14	Construction of WatalBagh,Bridge, JKPC, Ganderbal
10.	Ms.Suzeena Iftikhar	13/14	
11.	Syed Abdul Mateen	14/14	Beigh Constructions Co. Pvt. Ltd. By Pass

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			Jammu.
12.	Salman Sadat Dar	15/14	Surveying and Estimation of a 2.5km road, PWD, J and K
13.	Ms. Insha Muzaffar Malik	16/14	JKPCC Limited Jammu
14.	Atti-Ur-Rahman	17/14	JKPCC Limited Jammu
15.	Dheeraj Kumar	19/14	JKPCC Limited Jammu
16.	Imtiyaz Ahmad Ahanger	20/14	Salal Power Project, NHPC
17.	Zubair Zahoor Bandey	21/14	Construction of auditorium at rajbhawanr&bsrinagar
18.	Housher Ahmad Malik	22/14	JKPCC Limited Jammu
19.	Pankaj Kundal	23/14	JKPCC Limited Jammu
20.	Muheeb Majid Najar	24/14	New Austrian Tunneloing Method, AFCONS
21.	Mugees Tahoor	25/14	New Austrian Tunneling Method, AFCONS
22.	Mohd Haseeb Shora	26/14	New Austrian Tunneling Method, AFCONS
23.	Mohd Iqbal	27/14	Construction of New Legislative Assembly Complex at Jammu , JKPCC
24.	Mehboob Ali Khan	28/14	Construction of New Legislative Assembly Complex at Jammu , JKPCC
25.	Anies Ul Amin	29/14	PWD (R&B) Srinagar
26.	Owais Saleem	30/14	Parnati Hydro Electric Project SurenkotPoonch.
27.	Amarjeet Singh	31/14	JKPCC Limited Jammu
28.	Suhail Yaqoob	32/14	PWD (R&B) Srinagar
29.	Vimal Jeet Khajura	33/14	Construction of 300m pre-stressed concrete bridge, PCC, Jammu
30.	Aaqil Rashid Baht	35/14	Construction of school building, PWD, Anantnag
31.	Anup Kumar	36/14	ERA
32.	Adil Rasool Kumar	37/14	Construction of Central University, Jammu, SEW, Infrastructure
33.	Sudhanshu Mahajan	38/14	Parnati Hydro Electric Project SurenkotPoonch.
34.	Dhruv Tadwal	39/14	JKPCC Limited Jammu
35.	Aaqif Yousf Bhat	40/14	Construction of 300m pre-stressed concrete bridge, PCC, Jammu
36.	Ranjeet Kumar Thapa	41/14	Construction of Central University, Jammu, SEW, Infrastructure
37.	Shubam Mahajan	43/14	Construction of 300m pre-stressed concrete bridge, PCC, Jammu
38.	Vinod Kumar	44/14	Lucknow Metro, L and T Pvt Limited
39.	Gurtej Singh	45/14	JKPCC Limited Jammu
40.	Himanshu Roy	46/14	Salal Power Project, NHPC
41.	Zakir Hussain	47/14	Space Engineers Consortium Pvt. Ltd.Srinagar
42.	Pushep Kumar	49/14	JKPCC Limited Jammu
43.	Purushesh Naad	50/14	Lower Kalnai Hydro Electric Project , JKPDC
44.	Abdul Basit Khan	51/14	Space Engineers Consortium Pvt. Ltd.Srinagar
45.	Vishal Tiku	52/14	Dy. Project Manager , JKUSDIP (WS-02) ERA Jammu



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46.	Mohammad Shamsul Haq	53/14	Space Engineers Consortium Pvt. Ltd. Srinagar
47.	Naveed Ul Hassan	54/14	37.5MW Parnai, HEP, Poonch, JKSPDC
48.	Muiz Ahmed Bhat	55/14	Parnai HEP, JKSPDC
49.	Amir Aziz Sheikh	57/14	-do
50.	Sheikh Aquib	59/14	Construction of 300m pre stressed bridge, ECC
51.	Piyush Kumar Vaibshy	60/14	Lucknow Metro, L and T Pvt Limited
52.	Chandra Kant Bhaskar	61/14	Construction of an educational building, PWD, UP
53.	Devendra Meena	62/14	Design of a hostel building, CPWD, Jaipur
54.	Bal Gopal Nagar	63/14	MNIT, Jaipur Rajasthan
55.	Vikram Jeet Singh	64/14	Salal Power Project, NHPC
56.	Pankaj Kumar	65/14	Salal Power Project, NHPC
57.	Raj Kumar Chotla	66/14	Hydro-electric Power project on Lower Kalnainalla
58.	Anoop Yadar	68/14	Hydro-electric Power project on Lower Kalnainalla
59.	Naveed Murtaza Gulzar	69/14	Construction of cement concrete pavement, PWD, UP
60.	Bhanu Pratap Singh	70/14	Design of a hostel building, CPWD, Jaipur
61.	Sunidhi Supriya	72/14	Design of an institutional building, CWD ,Kota
62.	Prashant Mishra	77/14	Design of a hostel building, CPWD, Jaipur
63.	Himanshu Gujar	78/14	Design of an institutional building, CWD ,Kota
64.	Prakhar Kanaujra	79/14	Construction of cement concrete pavement, PWD, UP
65.	Avinash Kajla	80/14	Dy. Chief Engineer Construction Div-I North Western Railway, Jaipur
66.	Azad Ahmed	83/14	Development of roads for central university Jammu, SEW Infrastructure
67.	Prem Singh Meena	86/14	Design of a Hostel Building, CPWD, Jaipur
68.	Meshrai Singh	87/14	Design of a Hostel Building, CPWD, Jaipur
69.	Jagdish Kumar Kasaushan	89/14	Central Tool Room and Training Centre Bubneshwar
70.	Shankar Kumar	90/14	Central Tool Room and Training Centre Bubneshwar
71.	Bharat Jaysewal	91/14	Design of an office building, PWD Jaipur
72.	Sunil Kumar Chahar	92/14	Lucknow Metro Rail Project, LMRC
73.	Adarsh Sehu	93/14	Lucknow Metro Rail Project, LMRC
74.	Amit Kumar	95/14	Project of Road and Building Works, PWD, Jhunjhunu
75.	Avadhesh Kumar	96/14	Construction of Road, PWD
76.	Gulshan Gared	97/14	Construction of Gopalam Building , PWD, Jaipur
77.	Sunil	98/14	PWD Division, Sikar
78.	Narendra Kumar	100/14	PWD Division, Sikar
79.	Deepak	101/14	Design of an education building, PWD Sub DN-II JHUNJHUNU
80.	Gaurav Kumar	104/14	Construction of Flyover from Mithappur to Chiraiyatant, BRPNNL, Patna

Criterion 2

81	Suneel Kumar	105/14	Lucknow Metro Rail Project, LMRC
82	Neeraj Agrahari	106/14	Lucknow Metro Rail Project, LMRC
83	Prakesh Kumar	108/14	Construction of Flyover from Mithappur to Chiraiyatant, BRPNL, Patna
84	Deepak Kr Jha	110/14	
85	Shubham Jain	111/14	Managing Director, BiharRajyaPulNirmanNigram Ltd. Patna.
87	Dinesh	112/14	AAI, New Delhi
88	Daksh Jain	113/14	AAI, New Delhi
89	Vipin Vijay	114/14	Lucknow Metro Rail Project, LMRC
90	Mir Fazian Farooq	115/14	Analysis and design of multi storey residential building, CADD training Service Center Awantipora
91	Sanjiv Kumar Bhargeva	116/14	D.T.T.D.C.Ltd. MajnuKaTila Outer Ring Road, Delhi.
92	Sonu Kumar	117/14	AAI,New Delhi
93	Jagdish Paliwal	118/14	Lucknow Metro Rail Project, LMRC
94	Shivdar	119/14	L and T Limited Construction Division Hyderabad.
95	Mohd Ilyas Bhat	120/14	Analysis and design of multi storey residential building, CADD training Service Center Awantipora
96	Vaibhav Gupta	121/14	Lucknow Metro Rail Project, LMRC
97	Paras Rathore	122/14	Construction of Four Lane, ROB in lieu of RUB B-72, Jodhpur Development authority
98	Anupem Kumar	123/14	Lucknow Metro Rail Project
99	Devesh Soni	635/14	High Level Bridge parallel to Kota Barrage across river Chambal, UIT , Kota
100	Anil Kumar	636/14	L and T Limited Construction Division Hyderabad.
101	Md. Sarfaraz Reyaz	637/14	D.T.T.D.C.Ltd. MajnuKaTila Outer Ring Road, Delhi.
102	Katiki Reddy Pravallika Reddy	638/14	L and T Limited Construction Division Hyderabad.
103	Amit Shukla	639/14	AAI,New Delhi
104	Aditya Prakash	640/14	Construction of Flyover, BRPNN, Patna
105	Mohd Rizwan	641/14	Noida Metro Project, DRMC, New Delhi
106	Pushkar Pretap Singh	642/14	Noida Metro Project, DMRC, New Delhi
107	Ravindra Singh	643/14	Noida Metro Project, DRMC, New Delhi
108	Mohd Asif Khan	644/14	Construction of signature bridge, DTTDC,New Delhi
109	Amit Kumar	645/14	PWD Division, Sikar
110	Ashok Shaima	646/14	PWD Division –II Jaipur
111	Moin Khan	647/14	L and T Limited Construction Division Hyderabad.
112	Krishna Singh	648/14	Construction of Road CPW, Sikar
113	Prashent Kumar Bhardwaj	649/14	AAI,New Delhi
114	Lovekush Kumar	650/14	Construction of Road CPW, Sikar
115	Asif Jeelani Bhat	651/14	JKPCC, Srinagar
116	Anayat Bahsir	652/14	Construction of Road CPW, Sikar
117	Lala Musediq Abbas	653/14	PWD Division –II Jaipur

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	Shabir		
118	Basiq Naseer Khan	654/14	Salal Power Project, NHPC
119	Shasti Jan	41/13-14	Salal Power Project, NHPC

**Table B.2.2.5c**

**Details of the Students who have undergone Industrial Training of more than 2-weeks- Batch 2015**

S.No	Name of The Student	En. No	Particulars of Practical Training
01.	AayatAbidKamli	Civ/02/15	Integrated Managemnt System proceduresera, SNC Lavalin
02.	Zahid Parvaiz	Civ/03/15	Construction of a flyover, JKERA
03.	Afaan Bilal	Civ/04/15	Construction of elevated expressway cooridoor, Srinagar, JKERA
04.	KritiDhiman	Civ/05/15	Civil Engineering work practices, AAI New Delhi
05.	ZarnainFayaz	Civ/06/15	Redevelopment of Kidwa Nagar New Delhi, NBCC
06.	MohdYounisHajam	Civ/07/15	Construction of Bridge, JKPWD Pulwama
07.	Samma Malik	Civ/08/15	Constrcution of migrant colony, Budgam, JKPCC
08.	Faheem Farooq Reshi	Civ/09/15	Construction of a flyover, JKERA
09.	HananShawal	Civ/10/15	Construction of a flyover, JKERA
10.	BazelaManzoor	Civ/11/15	Construction of a flyover, JKERA
11.	VishavJeet	Civ/12/15	Construction of link Taxi helicopter Parking, Jammu Airport
12.	Faisal Firdous	Civ/14/15	Construction of a flyover, JKERA
13.	Muzamil Shafi Wani	Civ/15/15	Construction of a flyover, JKERA
14.	AamirSuhailHajam	Civ/16/15	Construction of culverts, PWD Qazigund
15.	KhushnumaMushtaq	Civ/17/15	Western Region Pipeline Project, IOCL
16.	Haroon Rashid	Civ/18/15	Construction of a flyover, JKERA
17.	Khalid urRehman	Civ/19/15	Construction of Bridge,

Criterion 2

			Sharifabad, Bemina, JKPC
18.	SarthakNavesh	Civ/20/15	Construction of Girls Hostel, GMC Jammu, JKPC
19.	Wasim Ahmad Katariya	Civ/21/15	Construction of a flyover, JKERA
20.	IrumQadir	Civ/22/15	Construction of a flyover, JKERA
21.	Basit Tariq Guhnow	Civ/23/15	Construction of a flyover, JKERA
22.	AsmatNabi	Civ/24/15	Construction of a flyover, JKERA
23.	Rohit Kumar Bhagat	Civ/25/15	Construction of Bridge, Jammu, JKPC
24.	ShahrukhSaleem	Civ/26/15	Construction of Bridge, Jammu, JKPC
25.	Shakir Ahmad Tarray	Civ/27/15	Construction of a flyover, JKERA
26.	Aqib Assad	Civ/28/15	Construction of a flyover, JKERA
27.	Nasier Hussain	Civ/29/15	Construction of a flyover, JKERA
28.	Tawseef Iqbal	Civ/30/15	Construction of Bridge, Sharifabad, Bemina, JKPC
29.	Amir Farooq Shah	Civ/31/15	Construction of a flyover, JKERA
30.	Haidayatullah	Civ/32/15	Construction of additional block of GDC Jammu, JKPC
31.	Sunil Kumar	Civ/33/15	Construction of Girls Hostel, SKAUST Jammu
32.	Jatin Siddhartha	Civ/35/15	Track maintenance in Sub urban sections, Western Railways
33.	Pardeep Kumar	Civ/36/15	Building construction project, JKPWD
34.	Mahesh Kumar	Civ/37/15	Building construction project, JKPWD
35.	Liyaqat Ali	Civ/38/15	Building construction project, JKPWD
36.	PirzadaUzair	Civ/39/15	Construction of Bridge, Sharifabad, Bemina, JKPC
37.	Akhil Kumar Bhagat	Civ/40/15	Construction of Girls Hostel, SKAUST Jammu
38.	Junaid Ahmad Najar	Civ/41/15	Construction of a flyover, JKERA
39.	TseringYoutan	Civ/42/15	Civil Engineering work practices, AAI New Delhi
40.	Mudasir Ahmad Zaki	Civ/43/15	Construction of a flyover, JKERA
41.	Kunal Dogra	Civ/44/15	Construction of Girls Hostel building Jammu, JKPC
42.	Irfan Ahmad Kumar	Civ/45/15	Construction of a flyover, JKERA
43.	Rafiq Ahmad	Civ/46/15	Construction of a multi

Criterion 2

			storeyed building (G+7) DD Builders
44.	Imtiyaz Gul	Civ/4915	Construction of a flyover, JKERA
45.	Hilal Ahmad Najar	Civ/51/15	Construction of a flyover, JKERA
46.	Muzamil Hassan	Civ/52/15	Construction of a flyover, JKERA
47.	AdfarAaghaz Mir	Civ/53/15	Construction of a flyover, JKERA
48.	AbhiAtri	Civ/54/15	Writers Club Building Construction Project, R&B Jammu
49.	VeenuThappa	Civ/55/15	Construction of a multi storeyed building (G+7) DD Builders
50.	Nasir Ahmad Ahanger	Civ/57/15	Construction of elevated expressway cooridoor, Srinagar, JKERA
51.	Joseph Nicholas Jaideep	Civ/58/15	Construction Stage Analysis and execution study of pre-cast segmented extra dosed, Barapullah bridge, L&T
52.	Bharat Gupta	Civ/59/15	Functions of ONGC in Civil Engg, ONGC
53.	FuzailShowkatWani	Civ/60/15	Construction of elevated expressway cooridoor, Srinagar, JKERA
54.	Ishan Gautam	Civ/61/15	Western Region Pipeline Project, IOCL
55.	ShivendraSahai	Civ/62/15	Construction of Cement Concrete Pavement, UPPWD
56.	Rohtan Singh	Civ/63/15	Construction of Cement Concrete Pavement, UPPWD
57.	JogeshvarBhindrar	Civ/65/15	Design of a residential building, PWD Rajasthan
58.	RohiniAngral	Civ/66/15	Construction of a multi storeyed building (G+7) DD Builders
59.	Ashish Meena	Civ/67/15	Design of a residential building, PWD Rajasthan
60.	Paul FGaisal	Civ/68/15	Construction of a flyover, JKERA
61.	Sajad Ahmad Malla	Civ/73/15	Construction of a flyover, JKERA
62.	Sahil Sharma	Civ/74/15erz	Govt. Hospital Construction Project, JKPCC
63.	IftikharGojri	Civ/76/15	Construction of elevated expressway cooridoor, Srinagar, JKERA
64.	Waseem Ahmad Bhat	Civ/77/15	Construction of Flyover from Jahangir Chowk to Rambagh, JKERA

Criterion 2

65.	Updesh Kumar	Civ/80/15	Construction of Metro Station, Lucknow Metro Corporation
66.	Abhishek Panday	Civ/84/15	Construction of Metro Station, Lucknow Metro Corporation
67.	RitikaMongra	Civ/86/15	Construction of a multi storeyed building (G+7) DD Builders
68.	MD FirozAlam	Civ/93/15	Construction of Metro Station, Lucknow Metro Corporation
69.	S. Mehran RasoolAndrabi	Civ/94/15	Construction of Flyover from Jahangir Chowk to Rambagh, JK ERA
70.	Nitesh Kumar Meena	Civ/98/15	Design of a residential building, PWD Rajasthan
71,=.	Sharda Khande	Civ/104/15	Construction of Village Road Bridge, RaigarhChattisgarh
72.	AlahariJayanth	Civ/105/15	Functions of ONGC in Civil Engg, ONGC
73.	Aman Kumar	Civ/106/15	Construction of Metro Station, Lucknow Metro Corporation
74.	Ankit Kumar	Civ/107/15	Construction of a building, PWD Rajasthan
75.	Sahil	Civ/108/15	Govt. Hospital Construction Project, JKPC
76.	Anand Kumar	Civ/109/15	Metro Railway Station Construction, DMRC
77.	Money Gupta	Civ/110/15	Construction of Cement Concrete Pavement, MPRRDA
78.	Vivek Kumar Yada	Civ/111/15	Parbati Hydroelectric Project Stage-III, Kullu
79.	Devendra Kumar Tiwari	Civ/112/15	Construction of residential township, NCL Singrauli
80.	Shailendra Singh	Civ/113/15	Construction of Metro Station, Lucknow Metro Corporation
81.	VinitJangir	Civ/114/15	Design of a residential building, PWD Rajasthan
82.	Shubham Kumar Jangir	Civ/115/15	Construction of a building, PWD Rajasthan
83.	DiryanshuNathTripathi	Civ/116/15	OBRA Coal fired thermal power project, UPRVONL
84.	Ritik Sharma	Civ/117/15	Pre- feasibility report for Airport expansion, IGI Airport New Delhi
85.	Markandey Rai	Civ/118/15	Construction of Metro Station, Lucknow Metro Corporation
86.	Ravi Kumar Verma	Civ/119/15	Design of a residential building, PWD Rajasthan
87.	Rahul	Civ/120/15	Railway bridge construction
88.	Sunil Kumar Patel	Civ/121/15	Construction of Bridges, DMRC
89.	Abhishek Gourav	Civ/122/15	Parbati Hydroelectric Project Stage-III, Kullu
90.	MD Fasihur Rahman	Civ/123/15	Delhi Metro Rail project,

Criterion 2

			CC94 Noida
91.	Vikas Chandra	Civ/124/15	Construction of Metro Station, Lucknow Metro Corporation
92.	YashawantDhayal	Civ/125/15	Design and Construction of a building, PWD
93.	PranjilChaluhan	Civ/127/15	Construction Stage Analysis and execution study of pre-cast segmented extra dosed, Barapullah bridge, L&T
94.	DaminiPandit	Civ/128/15	Elita Garden Vista Project-Phase-II, Simplex Infrastructures Ltd.
95.	Sunil Dhaker	Civ/129/15	Design of a residential building, Jaipur
96.	Akash Yadav	Civ/130/15	Design of a building Construction , PWD Churu
97.	Anuraag Kumar	Civ/131/15	Construction of Metro Station, Lucknow Metro Corporation
98.	Aman Srivastava	Civ/132/15	Redevelopment of Kidwa Nagar New Delhi, NBCC
99.	Kuldeep Chauhan	Civ/133/15	Design of a buildingConstruction, PWDChuru
100.	Manishg Kumar	Civ/134/15	Construction of Ganga Path, BSRDC, Bihar
101.	AkshaySaxena	Civ/135/15	WTP, RO Plant and STP at Jubilee Tower Noida, GAIL Ltd.
102.	RishabhaTiwari	Civ/136/15	Urban electrification of Kanpur City, IPDS Kanpur
103.	Anshu Agarwal	Civ/137/15	Design and Construction of a building, PWD Churu
104.	Yogesh Kumar	Civ/138/15	Parbati Hydroelectric Project Stage-III, Kullu
105.	Anil Kumar Yadavq	Civ/139/15	Functions of ONGC in Civil Engg, ONGC
106.	Vinold Chaudhary	Civ/140/15	Provision of Insfrastucture Work, CP&B Pvt. Ltd Assam
107.	RaghuvendraPratap Singh	Civ/141/15	School building construction, NULINE Construction, Bhopal
108.	Shnu Kumar	Civ/142/15	Panorama Square, SimanchalInfratech Pvt. Ltd
109.	RishabhSahu	Civ/143/15	Urban electrification of Kanpur City, IPDS Kanpur

**Table B.2.2.5d**

Post training assessment of the practical training is evaluated at the end of the 7th semester, by a committee constituted by the HOD. It carries 2 credits. The students give a PPT wherein they give a detailed report of the work done. The presentation is followed by an interaction session. The students are compulsorily supposed to submit a hard copy of the work done and is maintained in department as record. The credits are awarded based on the presentation, interaction and the practical training record.

**C. Impact analysis of industrial training (02)**

The students are provided with the feedback forms to rate their industrial training/internship. It is done to identify the level of achievement.

The feedback is obtained from the students at the end of 7th semester to assess the achievement of the objectives of the industrial training/ summer training/internship/ industrial tour.

<b>Department of Civil Engineering</b> <b>Feedback Form to Assess the Industrial Training</b>									
<b>Name of the student:</b>					<b>Enrollment No :</b>				
<b>1. Rank the departmental initiative about the seriousness regarding industrial training etc. :</b>									
Excellent	<input type="checkbox"/>	Good	<input type="checkbox"/>	Average	<input type="checkbox"/>	Fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Rate the faculty help you got in choosing the proper place for the training:</b>									
Excellent	<input type="checkbox"/>	Good	<input type="checkbox"/>	Average	<input type="checkbox"/>	Fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Rate the exposure you got to the practical working environment:</b>									
Excellent	<input type="checkbox"/>	Good	<input type="checkbox"/>	Average	<input type="checkbox"/>	Fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Did you become aware about the practical aspects of civil engineering during the training: Yes/No</b>									
<b>5 Did you notice some interesting facts and new technologies during the training:</b>									
<b>6 Would you suggest your juniors to undergo training there: Yes/No</b>									
<b>7. Suggestions which will make such training more useful and interesting:</b>									

*Table B.2.2.e*

**D. Student feedback on initiative (02)**



*Criterion 2*

**(Analysis of Students feedback on initiative (industrial training))**

The student's feedback is obtained and evaluated corrective action is taken accordingly. The action includes:-

1. To identify the project sites where students would be deputed.
2. If the students are not satisfied with the training imparted at a particular project/work, the students are not deputed to undergo training in at such projects in future.

<b>CRITERIA 3</b>	<b>Course Outcomes and Program Outcomes</b>	<b>Max. Marks: 175 Claimed:155</b>
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### 3.1. Correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (25)

#### Program Specific Outcomes (PSOs)

The Program Specific Outcomes broadly describe the overall capabilities a student is expected to possess at the end of the undergraduate program. The Program Specific Outcomes of the undergraduate program in Civil Engineering Department are given in Table B.3.1a.

#### Program Specific Outcomes (PSOs)

PSO	Statement
PSO1	Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software's towards solving technical problems requiring civil engineering interventions.
PSO2	Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.
PSO3	Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.

**Table B.3.1a**

#### Course Outcomes (COs)

The course outcomes are statements describing the expected depth of understanding of the disciplinary subject and the essential abilities related to the subject upon completion of the course. The course outcomes for all the courses from 2<sup>nd</sup> to 8<sup>th</sup> semester of the undergraduate course of Civil Engineering Department are given below in Table B.3.1b.

#### COs of all courses

Courses	Course Outcomes	
CIV-201: ENGINEERING MECHANICS	CIV-201.1	Understand fundamental principles of strength of materials.
	CIV-201.2	Analyze forces in planar trusses.
	CIV-201.3	Stress / force analysis of shafts subjected to torsional loads.
	CIV-201.4	Determine moment of area of plane sections.
	CIV-201.5	Analyze of stress and strain, structural members subjected to flexural loads.
CIV-301: STRUCTURAL ANALYSIS-I	CIV-301.1	To understand the force distribution in simple structural members like beams, columns etc.,
	CIV-301.2	To understand the concept of development of maximum stresses under normal loading in physical structures is also covered here.
	CIV-301.3	To understand the concepts of compound stresses and their evaluation.

Criterion 3

	CIV-301.4	To familiarize with kinematic and static indeterminacy of structures.
CIV-301(P) STRUCTURAL ENGINEERING LAB-I	CIV-301(P).1	To understand the behavior of structural members/elements under loading.
	CIV-301(P).2	To understand the properties of structural members so that one can judge at a glance safety and usage of a given structure.
	CIV-301(P).3	To determine crippling load of columns with different end conditions.
	CIV-301(P).4	To measure the ultimate shear strength.
CIV 302: FLUID MECHANICS-I	CIV302.1	To perform conversions of units of various physical quantities among different systems of measurements.
	CIV302.2	To calculate fluid properties viz., mass density, specific weight, viscosity, surface tension, compressibility, vapor pressure, etc. for various practical situations involving fluids at rest or in motion.
	CIV302.3	To Calculate pressure, force, and centre of pressure on plain and curved surfaces. To solve problems involving pressure determination using manometers.
	CIV302.4	To appreciate and understand various types of flows, different aspects of fluid motion, mass conservation principle, etc.
	CIV302.5	To formulate equations of motion and continuity for various fluid flow situations and to study applications of these equations in real life fluid flow problems including flow measuring devices and structures.
	CIV302.6	To perform dimensional analysis and identify important parameters.
	CIV302.7	To impart the understanding of concept of boundary layers, various boundary layer parameters, and determination of friction as a result of boundary layer formation.
CIV-302(P): FLUID MECHANICS LABORATORY-I	CIV-302(P).1	Measure discharge volumetrically.
	CIV-302(P).2	Measure pressure in closed conduits using manometers.
	CIV-302(P).3	Measure depth of flow in free surface flows using pointer gauge.
	CIV-302(P).4	Calibrate various flow measuring devices.
	CIV-302(P).5	Experimentally verify energy and momentum conservation principles.
CIV-303: SURVEYING-I	CIV-303.1	The importance of Engineering Surveys especially land surveying.
	CIV-303.2	The basic principles and types of land surveying.
	CIV-303.3	The theory, working principles, and numerical aspects of various surveying methods viz., chain, compass surveying.

Criterion 3

	CIV-303.4	To understand the numerical aspects of plane table surveying and levelling.
	CIV-303.5	To understand the basic concepts of traversing and photogrammetric Surveying.
CIV-303 (P): SURVEYING LABORATORY-I	CIV-303 (P).1	To handle and use basic surveying equipment viz., chain/ Tape, compass, plain table, and level.
	CIV-303 (P).2	Prepare layout plans.
	CIV-303 (P).3	To measure angles and bearings..
	CIV-303 (P).4	Prepare L –sections and X-sections showing relative levels of various points
	CIV-303 (P).5	To handle and use the total station and theodolite for various types surveying.
MTH-303: MATHEMATICS-I	MTH-303.1	The knowledge of various statistical aspects like measure of central tendency, dispersion and variance etc.
	MTH-303.2	Using the Fourier transforms for solving mathematical models.
	MTH-303.3	To understand the differential equations, partial differential equations that arises in modelling of engineering problems.
	MTH-303.4	To understand the numerical integration by trapezoidal rule, Simpson's rule and Gaussian quadrature, etc.
	MTH-303.1	The knowledge of various statistical aspects like measure of central tendency, dispersion and variance etc.
ELE-304: BASIC ELECTRICAL ENGINEERING	ELE-304.1	To understand the basic principles of A.C, D.C circuits and magnetic fields etc.
	ELE-304.2	To understand the basic concepts of magnetic circuits, electro magnetism.
	ELE-304.3	To understand and analyses AC & DC circuits.
	ELE-304.4	To understand the working principle and applications of DC & AC machines.
	ELE-304.5	To understand the basic concepts of electrostatics.
ELE-304: BASIC ELECTRICAL ENGINEERING LAB	ELE-304.1	To handle and use Gauss meters and teslameters.
	ELE-304.2	To handle and use the ammeters.
	ELE-304.3	To handle and use the voltmeters for both A.C and D.C.
	ELE-304.4	To measure electric flux with flux meter.
HSS-301: HUMANITIES & SOCIAL SCIENCE-I	HSS-301.1	Concepts, principles and areas of management.
	HSS-301.2	Objectives of management and management control.
	HSS-301.3	Industrialization, forms of industrial organizations, and pricing.
	HSS-301.4	To understand basic concepts of Groups ,Organizations, Culture, norms and values.
	HSS-301.5	To understand Multiple role, Role set, Role Conflict Socialization, Social Institutions.
CIV-304: GEOLOGY AND	CIV-304.1	To impart the basic understanding of the formation of rocks and minerals.

Criterion 3

MINERALOGY	CIV-304.2	To understand of basic erosional and depositional processes.
	CIV-304.3	To understand the physical attributes of minerals. Description of physical attributes is the simplest way to identify, classify, and categorize minerals.
	CIV-304.4	To summarize results of studies performed on mineral substances.
	CIV-304.5	To have an understanding of systematic process, accurate descriptions of physical characteristics.
CIV-304(P): GEOLOGY AND MINERALOGY LAB.	CIV-304(P).1	To understand the process of formation of rocks and minerals.
	CIV-304(P).2	To identify the rocks and minerals on the basis of laboratory work.
	CIV-304(P).3	To understand and read the geological maps for identification of different strata.
	CIV-304(P).4	To summarize the results of studies performed on mineral substances.
	CIV-304(P).5	To have an understanding of systematic process, and to determine the dip and strike of the rock formations.
CIV-300: PROFESSIONAL DEVELOPMENT ACTIVITIES.	CIV-300.1	To increase their communication skills and other such activities by group discussions and a proper Guidance from faculty who are experienced professionals.
	CIV-300.2	To exchange information and expertise among teachers and others, e.g. academics, industrialists.
	CIV-300.3	To help weaker students to become more effective.
	CIV-300.4	To use a variety of current technological tools in support of the teaching and learning process.
CIV-401: STRUCTURAL ANALYSIS-II	CIV-401.1	To understand the behaviour of complex structures/indeterminate structures under any kind of loading..
	CIV-401.2	To study building frames, gable frames and other building elements.
	CIV-401.3	To understand the behaviour of structures one can easily judge the weak spots in a building physically appearing on the ground
	CIV-401.4	Students will be able to use the concept of structural analysis and able to solve different critical analytical problems in civil engineering field.
CIV-402: FLUID MECHANICS-II	CIV-402.1	Analyze and perform calculations on open channel flows, compute water surface profiles and hydraulic jump characteristics.

Criterion 3

	CIV-402.2	Analyze and perform calculations on pipe flow problems involving turbulent flow, understand the concept of friction factor, head loss, and design of pipes and analysis of pipe-networks.
	CIV-402.3	Perform calculations for determination of the drag and lift forces on submerged bodies.
	CIV-402.4	Analyze water hammer phenomenon in closed conduits and design of surge tanks.
	CIV-402.5	Determine various hydraulic characteristics of turbines and pumps.
CIV-402(P): FLUID MECHANICS LAB. - II	CIV-402(P).1	Experimentally observe the variation of resistance coefficient by varying wall roughness in pipes and open channels.
	CIV-402(P).2	Obtain transverse velocity profiles in pipes and open channels and study the related phenomena.
	CIV-402(P).3	Experimentally determine the energy loss through various pipe fittings.
	CIV-402(P).4	Experimentally study the important characteristics of hydraulic jump.
CIV-403: SURVEYING-II	CIV-403.1	To understand traversing and numerical aspects of theodolite etc.
	CIV-403.2	To understand trigonometric levelling and geodetic Surveying.
	CIV-403.3	To understand curves and setting out of works.
	CIV-403.4	To understand tachometric surveying involving angular measurements.
CIV-403 (P): SURVEYING LAB. - II	CIV-403 (P).1	To operate and handle various types of theodolites.
	CIV-403 (P).2	Use of tachometer, its temporary adjustments, determination of constants, etc.
	CIV-403 (P).3	To use theodolite for angle measurement, traversing, etc.
	CIV-403 (P).4	Measurement of linear and angular measurements using EDM/GTS Instruments.
CIV-403 (SC): SURVEYING CAMP	CIV-403 (SC).1	To carry out land surveying work using different surveying instruments/ methods, in difficult natural terrain.
	CIV-403 (SC).2	To choose the appropriate method of surveying depending upon the terrain encountered.
	CIV-403 (SC).3	To prepare contour plans of undulated ground.
	CIV-403 (SC).4	To understand the triangulation methods on the basis of

Criterion 3

		global positioning system (GPS).
CIV-404: ENGINEERING GEOLOGY & MATERIALS	CIV-404.1	To understand the behaviour of rocks at different scales, under loading conditions at ground surface and in the subsurface.
	CIV-404.2	To understand the link between rock mechanics, geology and hydrogeology.
	CIV-404.3	To understand the various engineering properties of earth's materials.
	CIV-404.4	To understand the geological significant places to learn in-situ character of rocks in quarries/outcrops, road cuttings, dams, tunnels and underground excavations.
	CIV-404.5	To understand the engineering properties of bricks, classification and strength requirements, tiles and their uses.
CIV-404(P): GEOLOGY LAB.	CIV-404(P).1	To understand how rocks, behave at different scales.
	CIV-404(P).2	To understand the behaviour of minerals forming the major constituent of construction aggregates.
	CIV-404(P).3	Develop a link between geotechnics, rock mechanics, geology and hydrogeology.
	CIV-404(P).4	Have the basic understanding of various engineering properties of earth's materials (especially rocks), be able to prepare the geological maps and equally be able to read these maps.
	CIV-404(P).5	To determine dip and strike using various equipment's in geologically significant places.
CIV-405: BUILDING DRAWING & CONSTRUCTION	CIV-405.1	Drawing of building plans, elevations and sections.
	CIV-405.2	Detailed drawing of various building components including foundations.
	CIV-405.3	Drawing of various building services viz., plumbing, electrification, water supply, etc.
	CIV-405.4	Constructional aspects of various building components.
	CIV-405.5	Various types of foundations and their constructional aspects
MTH-406: MATHEMATICS-II	MTH-406.1	To apply mathematical analysis to civil engineering problems.
	MTH-406.2	To develop mathematical models for different processes/phenomena relevant to civil engineering.
	MTH-406.3	To apply numerical solution techniques to complex/non-linear differential equations used in civil engineering.
	MTH-406.4	To analyze complex, highly variable data statistically.
CIV-400:	CIV-400.1	To develop new skills by group discussions and under proper guidance of experienced professionals.

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PROFESSIONAL DEVELOPMENT ACTIVITIES	CIV-400.2	To increase their communication skills and other such activities by group discussions and a proper Guidance from faculty who are experienced professionals.
	CIV-400.3	To exchange information and expertise among teachers and others, e.g. academics, industrialists.
	CIV-400.4	To help weaker students to become more effective.
CIV-501: DESIGN OF STRUCTURES-I	CIV-501.1	To use a variety of current technological tools in support of the teaching and learning process.
	CIV-501.2	To design different structural members of reinforced concrete.
	CIV-501.3	To make use of IS codes in designing concrete structures.
	CIV-501.4	To develop load verses strength relations and co-relations with a view to judge at hand the feasibility of member in a given system / building.
	CIV-501.5	To strengthen a given structural member against any kind of loading.
CIV-501(P): CONCRETE LABORATORY	CIV-501(P).1	To handle concrete and its constituents in laboratory.
	CIV-501(P).2	To design experiments related to testing various aspects of concrete and its constituents.
	CIV-501(P).3	To test concrete and concrete structures for various characteristics/properties and compare the same with those given as per IS codes.
	CIV-501(P).4	To understand how concrete behaves in actual buildings.
CIV-502: HIGHWAY ENGINEERING AND PMS	CIV-502.1	To design roads and highway alignment.
	CIV-502.2	To develop geometric design of highways.
	CIV-502.3	To design pavements.
	CIV-502.4	To test properties of road aggregates and bituminous material.
	CIV-502.5	To select materials for cement concrete roads.
	CIV-502.6	To perform pavement management.
CIV-502(P): PAVEMENT ENGG. LABORATORY	CIV-502(P).1	To characterize the pavement materials.
	CIV-502(P).2	To perform quality control tests on pavements and pavement materials.
	CIV-502(P).3	To perform quality control tests on pavements and pavement materials
CIV -503: GEOTECHNICAL ENGINEERING -I	CIV-502(P).1	To classify soils and understand their index properties.
	CIV-502(P).2	To analytically analyze flow through soils.
	CIV-502(P).3	To perform/demonstrate soil compaction tests.
	CIV-502(P).4	To determine stress distribution in soils.
	CIV-502(P).5	To utilize various methods of soil investigation in field and laboratory.
CIV -503(P): GEOTECHNICAL	CIV -503(P).1	To demonstrate the application of various equipment in geotechnical laboratory.



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LABORATORY-I	CIV -503(P).2	To determine basic soil properties and consistency limits.
	CIV -503(P).3	To determine soil gradation curves by various methods.
	CIV -503(P).4	To perform consolidation and compaction tests in laboratory.
CIV-504: WATER RESOURCES ENGINEERING	CIV-504.1	To perform multiple analysis on precipitation data.
	CIV-504.2	To estimate various components of hydrological cycle such as stream flow, runoff, evapo-transpiration and infiltration.
	CIV-504.3	To measure components of hydrological water balance in field.
	CIV-504.4	To perform hydrograph analysis and estimate magnitude of flood.
	CIV-504.5	To determine reservoir capacity and sedimentation.
	CIV-504.6	To perform steady state analysis of groundwater movement.
	CIV-504.7	To determine the technical, social and economic aspects of water resources planning and management.
CIV-505: QUANTITY SURVEYING & COST EVALUATION	CIV-505.1	To understand, prepare and use labor schedule, material schedule & rate schedule.
	CIV-505.2	To prepare estimates of quantities of various items of buildings and roads works.
	CIV-505.3	To analyze rates of various items involved in building and road works.
	CIV-505.4	To carry out valuation and rent fixation of buildings.
	CIV-505.5	To understand and use building codes.
CIV-500: PROFESSIONAL DEVELOPMENT ACTIVITIES	CIV-500.1	To develop new skills by group discussions and under proper guidance of experienced professionals.
	CIV-500.2	To increase their communication skills and other such activities by group discussions and a proper Guidance from faculty who are experienced professionals.
	CIV-500.3	To exchange information and expertise among teachers and others, e.g. academics, industrialists.
	CIV-500.4	To develop new skills by group discussions and under proper guidance of experienced professionals.
CIV-511: E1: ARCHITECTURE & TOWN PLANNING	CIV-511: E1.1	To understand and interpret civil engineering drawings.
	CIV-511: E1.2	To understand principles of planning, building, bye laws and perspective drawing.
	CIV-511: E1.3	To produce various civil engineering drawings.
	CIV-511: E1.4	To develop architectural design of buildings.
CIV-511: E1: CONCRETE TECHNOLOGY	CIV-511: E1.1	To understand properties of concrete and aggregates.
	CIV-511: E1.2	To select ingredients for concrete mix design.

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	CIV-511: E1.3	To determine the proportions of various ingredients of concrete.
	CIV-511: E1.4	To determine the effect of environmental factors on strength and bond of concrete.
	CIV-511: E1.5	To modify properties of concrete using admixtures.
CIV-511: E1: ENGINEERING SEISMOLOGY	CIV-511: E1.1	To do earthquake zonation of a region.
	CIV-511: E1.2	To foresee the potential consequences of strong earthquakes on urban areas and civil infrastructure.
	CIV-511: E1.3	To determine earthquake characteristics like epicenter, size, intensity and energy released.
	CIV-511: E1.4	To suggest public policies for dealing with earthquakes.
	CIV-511: E1.5	To perform efficient hazard management and mitigation.
CIV-601: DESIGN OF STRUCTURES-II	CIV-601.1	To design welded and bolted connections in steel.
	CIV-601.2	To design tension, compression and flexural structural elements in steel.
	CIV-601.3	To design plate girders.
	CIV-601.4	To design bolted and nailed joints in timber.
	CIV-601.5	To design timber structural members for tension, compression and flexure.
CIV-601(P): STRUCTURAL ENGINEERING LAB.-II	CIV-601(P).1	To understand physically the behaviour of both simple and complex structures when put under load.
	CIV-601(P).2	To understand the deflection of curved beams and trusses.
	CIV-601(P).3	To carry out the analysis of a redundant joint and two hinged arch.
	CIV-601(P).4	To carry out the analysis of an elastically coupled beam.
CIV-602: TRAFFIC ENGINEERING AND ROAD FACILITIES	CIV-602.1	To understand the various aspects of roads, road characteristics, road capacity
	CIV-602.2	To understand the level of service concept & traffic control devices.
	CIV-602.3	To understand the aspects of traffic flow, fundamental relation of traffic flow, etc.
	CIV-602.4	To understand the intersections and interchanges along with their requirement and design.
CIV-602 (P): TRAFFIC ENGINEERING LAB.	CIV-602 (P).1	To develop the skill for performing various tests related to Traffic Engineering.
	CIV-602 (P).2	To understand the use of various tests in the field problems.
	CIV-602 (P).3	To apply the concepts of traffic flow in field problems.
	CIV-602 (P).4	To practically use the traffic control devices.
CIV -603: GEOTECHNICAL ENGINEERING -II	CIV -603.1	To equip the knowledge of strength and mechanical behaviour of soils.
	CIV -603.2	To understand the concepts of bearing capacity and foundations.

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	CIV -603.3	To understand the practical aspects of earth pressure and retaining structures.
	CIV -603.4	To understand the concepts of slope stability along with its practical application.
CIV -603(P): GEOTECHNICAL LABORATORY -II	CIV -603(P).1	To develop the skill of performing various tests related to sub-soil explorations.
	CIV -603(P).2	To perform the tests related to bearing capacity.
	CIV -603(P).3	To develop the skill to use these tests in various field problems.
	CIV -603(P).4	To practically apply the concepts of slope stability, earth pressure & retaining structures.
CIV -604: IRRIGATION & HYDRAULIC STRUCTURES	CIV -604.1	To appreciate various methods of irrigation and water application to agricultural fields.
	CIV -604.2	To carry out hydraulic design of irrigation canals, diversion head-works, and cross drainage works.
	CIV -604.3	To appreciate the soil-water- plant relationship and understand the crop water requirements.
	CIV -604.4	To Understand various aspects of water logging of agricultural lands.
CIV-600: PROFESSIONAL DEVELOPMENT ACTIVITIES	CIV-600.1	To increase their communication skills and other such activities by group discussions and a proper Guidance from faculty who are experienced professionals.
	CIV-600.2	To exchange information and expertise among teachers and others, e.g. academics, industrialists.
	CIV-600.3	To develop new skills by group discussions and under proper guidance of experienced professionals.
	CIV-600.4	To increase their communication skills and other such activities by group discussions and a proper Guidance from faculty who are experienced professionals.
CIV -611: E1: WATERSHED MANAGEMENT	CIV -611: E1.1	To perform studies related to watershed management.
	CIV -611: E1.2	To prepare pre-feasibility and detailed project reports, etc.
	CIV -611: E1.3	To appreciate the concept of integrated water resources management.
	CIV -611: E1.4	To understand the concepts of renewable energy, biomass, etc.
	CIV -611: E1.5	To equip with the rural technological delivery systems and low cost technology that can be used in the farm.
MTH -611: E1: OPERATIONS RESEARCH	MTH -611: E1.1	To use numerical techniques to solve civil engineering problems involving large no. of variables.
	MTH -611: E1.2	To use dimensional technique to solve civil engineering problems involving large no. of variables.
	MTH -611: E1.3	To know various aspects of linear programming.
	MTH -611: E1.4	To know the various aspects of dynamic programming.

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PHY-611: E1: SOLAR ARCHITECTURE	PHY-611: E1.1	To understand the basic principles related to solar heating and cooling.
	PHY-611: E1.2	To understand the building design in the context of solar heating and cooling.
	PHY-611: E1.3	To understand the concept of photovoltaic modules.
	PHY-611: E1.4	To have an idea of white wall, black wall, solar tracker, solar chimney, etc.
CIV-612: E2: STRUCTURAL ANALYSIS-III	CIV-612: E2.1	To develop the knowledge about the use of different materials like concrete, steel, timber in different structures like bridges, buildings, etc.
	CIV-612: E2.2	To have a knowledge of the selection with authenticity on the type of structure/ structural members to be used in a given project in a given environment.
	CIV-612: E2.3	To understand the concept of cable and suspension bridges.
	CIV-612: E2.4	To develop the know-how of energy method of analysis.
CIV-612: E2: DISASTER MANAGEMENT	CIV-612: E2.1	To understand the Disaster management cycle.
	CIV-612: E2.2	To develop the concept of flood Management including flood plain delineation, flood mitigation etc.
	CIV-612: E2.3	To study the landslides and related mitigation measures.
	CIV-612: E2.4	To understand the various aspects of earthquake resistant design.
	CIV-612: E2.5	To understand the various aspects of drought and its management.
CIV-612: E2: APPLIED HYDROLOGY	CIV-612: E2.1	To understand the analysis of various processes and storages in the hydrological cycle.
	CIV-612: E2.2	To understand extreme flows both floods and droughts and their analysis.
	CIV-612: E2.3	To understand the rainfall -runoff modelling.
	CIV-612: E2.4	To perform routing techniques in reservoirs and channels.
CIV -701: ENVIRONMENTAL ENGINEERING-I	CIV -701.1	To develop the concept about various aspects related to drinking water quality and quantity.
	CIV -701.2	To understand the various aspects of storage and distribution of drinking water.
	CIV -701.3	To design water treatment plants.
	CIV -701.4	To have knowledge about various aspects related to sanitation of buildings.
CIV -701(P): WATER QUALITY LABORATORY	CIV -701(P).1	To carry out various the tests for determining the total solids, suspended solids and dissolved solids in a sample of water.
	CIV -701(P).2	To handle all basic water testing equipments.
	CIV -701(P).3	To carry out various tests for determining the turbidity, salinity and alkalinity of a sample of water.

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	CIV -701(P).4	To determine the percentage of various ions in water.
CIV -702: STRUCTURAL DYNAMICS	CIV -702.1	To demonstrate the effect of non-stationary loading (Dynamic loading) like Wind, E/Q on structures.
	CIV -702.2	To apply this knowledge to model best physical structures to encounter unforeseen events arising out of gusty winds, tsunamis and earthquakes.
	CIV -702.3	To understand the numerical techniques for finding natural frequencies and mode shapes.
	CIV -702.4	To understand Indian standards and design buildings based on codal provisions.
CIV -703: CONSTRUCTION TECHNOLOGY AND MANAGEMENT	CIV -703.1	To understand the various techniques of civil engineering constructions.
	CIV -703.2	To understand the various aspects of construction equipment's.
	CIV -703.3	To develop the skill for the management of construction projects.
	CIV -703.4	To develop the concept of works accounting.
CIV -704: DESIGN OF STRUCTURES-III	CIV -704.1	The design of RCC footings, Isolated footings and various types of combined footings, design of masonry foundations
	CIV -704.2	Design of cantilever and counter-fort type RCC retaining walls. Design of masonry retaining walls.
	CIV -704.3	Design of underground, circular and rectangular water tanks with reference to IS: 3370.
	CIV -704.4	Design of rectangular, T and I section beams of pre-stressed concrete.
	CIV -704.5	Design of domes and ring beams.
CIV -705: COMPUTER AIDED DESIGN	CIV -705.1	To develop an understanding of various computer software's like MATLAB, R package, AutoCAD, Praxis, GIS, etc. and their application in the field of Civil Engineering.
	CIV-705.2	To provide an overview of how computers are being used in civil component design.
	CIV-705.3	Use the latest software tools for Modelling, Analysis and Design of Civil Engineering Systems
	CIV-705.4	Identify the available open source software tools used for specific problems in Civil Engineering.
CIV -706: SEMINAR	CIV -706.1	In preparation of a detailed report.
	CIV -706.2	In presenting any technical topic before an audience.
	CIV -706.3	In searching of innovative topics.
	CIV-706.4	In search of scientific innovations in engineering.
CIV -707: PROJECT PRE- WORK	CIV -707.1	Identifying an actual field problem.
	CIV -707.2	In searching for literature related to the identified problems.
	CIV -707.3	In selecting the methodology to solve the identified problems.

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	CIV-707.4	In selecting software's for the analysis of data.
CIV-700: PROFESSIONAL DEVELOPMENT ACTIVITIES	CIV-700.1	To learn the management and leadership qualities, personal and professional growth to explore a new area of interest.
	CIV-700.2	To develop interpersonal skills and be an effective goal oriented professional.
	CIV-700.3	To develop professionals with idealistic, practical and moral values.
	CIV-700.4	To develop communication and problem solving skills.
CIV -711: E1: RAILWAY AND AIRPORT ENGINEERING	CIV -711: E1.1	The transport system of the country.
	CIV -711: E1.2	The various aspects railway design.
	CIV -711: E1.3	Various aspects of airport system and airport pavement design.
	CIV-711: E1.4	To expose the students to Railway planning, design, construction and maintenance and planning and design principles of Airports and Harbors.
CIV -711: E1: FLUVIAL HYDRAULICS	CIV -711: E1.1	Various aspects related to sediment transportation,
	CIV -711: E1.2	Alluvial stream problems, loose boundary hydraulics,
	CIV -711: E1.3	Stable channel design.
	CIV-711: E1.4	The course aims at providing know-how about: – steady flow of free surface streams; – laboratory experiments for the estimation of flow rate in free surface streams; – unsteady flow of free surface streams; – evaluation of the forces acting on the structures in free surface flows; – bed and suspended load transport, and interactions with the engineering constructions along a stream.
CIV -711: E1: ADVANCED GEOTECHNICAL ENGINEERING	CIV -711: E1.1	Earth pressure analysis for sloping backfill, proportioning and stability checks.
	CIV -711: E1.2	Analysis and design of pile foundations, Raft foundations;
	CIV -711: E1.3	Various aspects of environmental geotechnique.
	CIV -711: E1.4	Basics of soil dynamics.
CIV -711: E1: ADVANCED STRUCTURAL ANALYSIS	CIV -711: E1.1	The various aspects of matrix method of analysis of various structures.
	CIV -711: E1.2	The various aspects of finite element method and its use in analysis of various structures.
	CIV-711:E1.3	Ability to model loads on structures using current codes and standards
	CIV-711:E1.4	Ability to analyze statically determinate trusses, beams, and frames and obtain internal loading
	CIV-711:E1.5	Ability to solve statically indeterminate structures using classical methods
	CIV-711:E1.6	Familiarity with professional and ethical issues and the importance of lifelong learning in structural engineering
CIV -801: HYDROPOWER ENGINEERING	CIV -801.1	Analyze and perform hydro power potential assessment studies.
	CIV -801.2	Understand various types of hydro power developments.

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	CIV -801.3	Develop knowledge related to various hydropower structures viz., canals, tunnels, penstocks, dams, spillways, etc.
	CIV -801.4	Appreciate and have basic knowledge about power house details – pertinent structures, transmission systems, and economic feasibility of hydropower plants.
CIV -802: BRIDGE ENGINEERING	CIV -802.1	The various aspects related to analysis of cable and suspension bridges
	CIV -802.2	The various aspects related to bridge design, to be used in actual field problems
	CIV-802.3	To develop an understanding of and appreciation for basic concepts in proportioning and design of bridges in terms of aesthetics, geographical location and functionality.
	CIV-802.4	To carry out a design of bridge starting from conceptual design, selecting suitable bridge, geometry to sizing of its elements.
CIV –803: PROJECT	CIV –803.1	To conduct investigations of complex civil engineering problems using research-based methods.
	CIV –803.2	To prepare detailed project reports for investigations carried out for such complex engineering problems.
	CIV-803.3	Application of systematic synthesis and design processes to well defined engineering problems
	CIV-803.4	Application of established technical and practical methods to the solution of well-defined engineering problems.
CIV -804: PRACTICAL TRAINING & VIVA-VOCE	CIV -804.1	Will gain the field training on actual civil engineering constructions.
	CIV-804.2	Discernment of engineering developments within the practice area.
	CIV-804.3	Knowledge of contextual factors impacting the practice area.
	CIV-804.4	Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the area of practice.
CIV -811: E1: ROCK MECHANICS AND TUNNEL TECHNOLOGY	CIV -811: E1.1	To understand the mechanical behaviour of the rock.
	CIV -811: E1.2	To understand the mechanics concerned with the response of the rock to the force field of its physical environments.
	CIV -811: E1.3	To perform simple rock mechanics and rock engineering analysis.
	CIV -811: E1.4	To understand the fundamentals of rock engineering design.
	CIV -811: E1.5	To be able to confidently apply the material to which they have been exposed.
CIV -811: E1: TRANSPORTATION PLANNING & ECONOMICS	CIV -811: E1.1	Transportation planning and Economics and engineering analysis
	CIV -811: E1.2	Conduct activities to measure traffic stream characteristics (volume, speed, and density) and analyze

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		field data to estimate values for traffic stream parameters, including hypothesis tests.
	CIV -811: E1.3	Approach transportation problems, especially traffic congestion on highways, from a systems point of view, as an interaction between land use and transportation systems, not just as the problem related to highways. This competency is all inclusive, including public transportation, freight, and sustainability.
	CIV -811: E1.4	Understand the dynamic interaction of the driver, roadway, and vehicle, and evaluate and design roadway sections for safe stopping sight distance.
MTH -811: E1: NUMERICAL METHODS IN CIVIL ENGINEERING	CIV -811: E1.1	To understand the various techniques of interpolation
	CIV -811: E1.2	To understand the numerical difference analysis method and its use in the field of Civil Engineering
	CIV -811: E1.3	To understand the finite difference analysis technique and its use in the field of Civil Engineering
	CIV-811:E1.4	To review and implement the basic principles of interpolation and polynomial approximation, numerical integration, solving simple ordinary differential equations and partial differential equations.
CIV -812: E2: GROUND IMPROVEMENT TECHNIQUES	CIV -812: E2.1	Understanding of various aspects related to Ground Improvement Techniques
	CIV -812: E2.2	Use of Ground Improvement Techniques in the field of Civil Engg.
	CIV -812: E2.3	Use of these techniques to deal the difficult soils.
CIV -812: E2: EARTHQUAKE RESISTANT DESIGN	CIV -812: E2.1	Earthquakes and response of buildings to earthquakes
	CIV -812: E2.2	Seismic design of RCC structures based on Code provisions IS: 1893.
	CIV -812: E2.3	Seismic design of brick masonry structures
	CIV -812: E2.4	Repair and seismic strengthening of buildings IS:13935
CIV -812: E2: ENVIRONMENTAL ENGINEERING - II	CIV -812: E2.1	The various aspects related to liquid, solid and gaseous waste
	CIV -812: E2.2	Quantification and projection of waste produced by communities.
	CIV -812: E2.3	Segregation and treatment of various types of wastes produced
	CIV -812: E2.4	Environmental effects of various types of wastes.

**Table B.3.1b**

**Course Articulation Matrix**

The Course Outcomes (COs) were correlated with the Program Outcomes (POs) as well as Program Specific Outcomes (PSOs) for all courses for each semester separately on a scale of 1 to 3, as given in Tables 3.5 and 3.6 below.

The various correlation levels are:



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- “1” – Slight (Low) Correlation
- “2” – Moderate (Medium) Correlation
- “3” – Substantial (High) Correlation
- “-” indicates there is no correlation.

**CO-PO mapping matrix of all courses**

Course	PO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CIV-201	CIV-201.1	3	3	1	1	-	2	1	-	-	-	-	-
	CIV-201.2	3	3	2	2	-	2	1	-	-	-	-	-
	CIV-201.3	3	3	2	2	-	2	1	-	-	-	-	-
	CIV-201.4	3	3	2	2	-	2	1	-	-	-	-	-
	CIV-201.5	3	3	2	2	-	2	1	-	-	-	-	-
CIV-301	CIV-301.1	3	2	2	1	-	2	1	-	-	-	-	1
	CIV-301.2	3	3	2	2	-	2	1	-	-	-	-	1
	CIV-301.3	3	3	2	2	-	2	1	-	-	-	-	1
	CIV-301.4	3	2	2	2	-	2	1	-	-	-	-	1
CIV-301(P)	CIV-301(P).1	3	2	2	1	-	2	1	-	-	-	-	1
	CIV-301(P).2	3	1	1	1	-	2	2	-	-	-	-	2
	CIV-301(P).3	3	2	1	1	-	2	1	-	-	-	-	2
	CIV-301(P).4	3	2	1	1	-	2	1	-	-	-	-	2
CIV 302	CIV302.1	1	-	-	2	-	-	-	-	-	-	-	-
	CIV302.2	2	-	-	1	-	-	-	-	-	-	-	-
	CIV302.3	2	-	-	1	-	-	-	-	-	-	-	-
	CIV302.4	2	2	2	2	-	1	1	-	-	-	-	-
	CIV302.5	3	3	3	3	-	2	2	-	-	-	-	-

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	CIV302.6	3	3	3	3	-	3	3	-	-	-	-	2
	CIV302.7	3	3	3	3	-	3	3	-	-	-	-	2
CIV 302(P)	CIV 302(P).1	2	-	-	1	-	-	-	-	-	-	-	-
	CIV 302(P).2	2	-	-	1	-	-	-	-	-	-	-	-
	CIV 302(P).3	2	-	-	2	-	-	-	-	-	-	-	-
	CIV 302(P).4	2	-	-	2	-	1	1	-	-	-	-	-
	CIV 302(P).5	2	2	2	2	-	2	2	-	-	-	-	2
CIV 303	CIV 303.1	2	-	-	-	-	1	1	-	-	-	-	-
	CIV 303.2	3	-	-	-	-	1	1	-	-	-	-	-
	CIV 303.3	3	2	3	2	-	2	2	-	-	-	-	2
	CIV 303.4	3	2	2	3	-	2	2	-	-	-	-	2
	CIV 303.5	3	2	2	3	-	2	2	-	-	-	-	2
CIV 303(P)	CIV 303(P).1	2	2	1	2	-	2	1	-	-	-	-	2
	CIV 303(P).2	2	1	1	2	-	2	-	-	-	-	-	2
	CIV 303(P).3	2	2	1	2	-	2	-	-	-	-	-	2
	CIV 303(P).4	2	1	1	2	-	2	-	-	-	-	-	2
	CIV 303(P).5	2	1	1	2	-	2	1	-	-	-	-	2
MTH- 303	MTH- 303.1	2	2	1	1	-	1	-	-	-	-	-	-
	MTH- 303.2	3	2	1	1	-	1	-	-	-	-	-	-
	MTH- 303.3	3	2	1	1	-	1	-	-	-	-	-	-
	MTH- 303.4	2	2	1	1	-	1	-	-	-	-	-	-
	MTH- 303.5	2	2	1	1	-	1	-	-	-	-	-	-

Criterion 3

ELE-304	ELE-304.1	2	-	-	-	-	1	1	-	-	-	-	-
	ELE-304.2	2	1	-	-	-	1	1	-	-	-	-	-
	ELE-304.3	2	1	-	-	1	1	-	-	-	-	-	-
	ELE-304.4	2	-	-	-	1	1	-	-	-	-	-	-
	ELE-304.5	2	-	-	-	1	1	-	-	-	-	-	-
ELE-304(P)	ELE-304(P).1	2	-	-	-	-	1	-	-	-	-	-	-
	ELE-304(P).2	2	-	-	-	-	1	-	-	-	-	-	-
	ELE-304(P).3	2	-	-	-	-	1	-	-	-	-	-	-
	ELE-304(P).4	2	-	-	-	-	1	-	-	-	-	-	-
HSS-301	HSS-301.1	-	-	-	-	-	2	-	3	3	2	-	-
	HSS-301.2	-	-	-	-	-	2	-	3	3	2	-	-
	HSS-301.3	-	-	-	-	-	2	-	2	2	-	2	-
	HSS-301.4	-	-	-	-	-	1	-	3	3	2	-	-
	HSS-301.5	-	-	-	-	-	2	-	3	3	2	-	-
CIV-304	CIV-304.1	3	1	-	2	-	2	3	-	-	-	-	2
	CIV-304.2	3	1	-	2	-	2	2	-	-	-	-	2
	CIV-304.3	3	1	-	3	-	3	3	-	-	-	-	2
	CIV-304.4	3	2	1	3	-	3	3	-	-	-	-	2
	CIV-304.5	3	1	-	2	-	3	3	-	-	-	-	2
CIV-304(P)	CIV-304(P).1	3	1	-	2	-	2	3	-	-	-	-	2
	CIV-304(P).2	3	1	-	3	-	2	3	-	-	-	-	2
	CIV-304(P).3	3	2	2	2	-	2	2	-	-	-	-	2

Criterion 3

	CIV-304(P).4	3	3	3	3	2	2	3	-	-	-	-	2
	CIV-304(P).5	3	3	3	3	2	2	2	-	-	-	-	2
CIV-300	CIV-300.1	-	-	-	-	-	1	1	3	3	3	2	3
	CIV-300.2	-	-	-	-	-	-	-	2	2	3	1	2
	CIV-300.3	-	-	-	-	-	1	-	1	1	2	-	2
	CIV-300.4	-	-	-	-	-	1	1	2	2	2	1	2
CIV-401	CIV-401.1	3	2	2	2	-	2	2	-	-	-	-	2
	CIV-401.2	3	3	2	2	-	2	2	-	-	-	-	2
	CIV-401.3	3	3	2	2	-	2	2	-	-	-	-	2
	CIV-401.4	3	2	2	2	-	2	2	-	-	-	-	2
CIV-402	CIV-402.1	3	3	3	3	-	2	2	-	-	-	-	2
	CIV-402.2	3	3	3	3	-	2	2	-	-	-	-	2
	CIV-402.3	3	3	3	3	-	2	2	-	-	-	-	2
	CIV-402.4	3	3	2	2	-	1	1	-	-	-	-	2
	CIV-402.5	3	3	3	3	-	2	2	-	-	-	-	2
CIV-402(P)	CIV-402(P).1	3	3	3	3	-	3	3	-	-	-	-	3
	CIV-402(P).2	3	3	3	3	-	3	3	-	-	-	-	3
	CIV-402(P).3	3	3	3	3	-	3	3	-	-	-	-	3
	CIV-402(P).4	3	3	3	3	-	3	3	-	-	-	-	3
CIV-403	CIV-403.1	3	2	1	2	-	2	-	-	-	-	-	2
	CIV-403.2	3	2	2	2	-	2	-	-	-	-	-	2
	CIV-403.3	3	2	2	2	-	2	-	-	-	-	-	2

Criterion 3

	CIV-403.4	3	2	2	3	-	2	-	-	-	-	-	2
CIV-403(P)	CIV-403(P).1	3	2	2	2	-	2	-	-	-	-	-	2
	CIV-403(P).2	3	2	2	2	-	2	-	-	-	-	-	2
	CIV-403(P).3	3	3	2	2	-	2	-	-	-	-	-	2
	CIV-403(P).4	3	3	2	2	-	2	-	-	-	-	-	2
CIV-403(SC)	CIV-403(SC).1	2	-	-	-	-	1	-	-	-	-	-	2
	CIV-403(SC).2	2	-	-	-	-	-	-	-	-	-	-	2
	CIV-403(SC).3	2	-	-	-	-	1	-	-	-	-	-	2
	CIV-403(SC).4	2	2	1	1	-	1	-	-	-	-	-	2
CIV-404	CIV-404.1	3	1	-	2	-	2	3	-	-	-	-	2
	CIV-404.2	3	1	-	2	-	2	2	-	-	-	-	2
	CIV-404.3	3	1	-	3	-	3	3	-	-	-	-	2
	CIV-404.4	3	2	1	3	-	3	3	-	-	-	-	2
	CIV-404.5	3	1	-	2	-	3	3	-	-	-	-	2
CIV-404(P)	CIV-404(P).1	3	1	-	2	-	2	3	-	-	-	-	2
	CIV-404(P).2	3	1	-	3	-	2	3	-	-	-	-	2
	CIV-404(P).3	3	2	2	2	-	2	2	-	-	-	-	2
	CIV-404(P).4	3	3	3	3	2	2	3	-	-	-	-	2
	CIV-404(P).5	3	3	3	3	2	2	2	-	-	-	-	2
CIV-405	CIV-405.1	3	-	2	-	-	-	-	-	-	-	-	2

Criterion 3

	CIV-405.2	3	-	3	-	-	-	-	-	-	-	-	2
	CIV-405.3	3	-	2	-	-	-	-	-	-	-	-	2
	CIV-405.4	3	-	3	-	-	-	-	-	-	-	-	2
	CIV-405.5	3	1	3	1	-	-	-	-	-	-	-	2
MTH-406	MTH-406.1	2	2	1	1	-	1	-	-	-	-	-	2
	MTH-406.2	3	2	1	1	-	1	-	-	-	-	-	2
	MTH-403.3	3	2	1	1	-	1	-	-	-	-	-	2
	MTH-403.4	2	2	1	1	-	1	-	-	-	-	-	2
CIV-400	CIV-400.1	-	-	-	-	-	1	1	3	3	3	2	3
	CIV-400.2	-	-	-	-	-	-	-	2	2	3	1	2
	CIV-400.3	-	-	-	-	-	1	-	1	1	2	-	2
	CIV-400.4	-	-	-	-	-	1	1	2	2	2	1	2
CIV-501	CIV-501.1	3	2	2	2	-	2	2	-	-	-	-	2
	CIV-501.2	3	3	2	2	-	2	2	-	-	-	-	2
	CIV-501.3	3	3	2	2	-	2	2	-	-	-	-	2
	CIV-501.4	3	3	2	2	-	2	2	-	-	-	-	2
	CIV-501.5	3	3	2	2	-	2	2	-	-	-	-	2
CIV-501(P)	CIV-301(P).1	3	2	1	2	-	2	1	-	-	-	-	2
	CIV-301(P).2	3	2	2	2	-	2	1	-	-	-	-	2
	CIV-301(P).3	3	2	2	2	-	2	1	-	-	-	-	2
	CIV-301(P).4	3	2	2	2	-	2	1	-	-	-	-	2
CIV 502	CIV502.1	3	2	2	2	-	2	2	-	-	-	-	2

Criterion 3

	CIV502.2	3	2	2	2	-	2	2	-	-	-	-	2
	CIV502.3	3	2	2	2	-	2	2	-	-	-	-	2
	CIV502.4	3	2	2	2	-	1	1	-	-	-	-	2
	CIV502.5	3	2	1	2	-	2	2	-	-	-	-	2
	CIV502.6	3	2	2	2	-	2	2	-	-	-	-	2
CIV-502(P)	CIV-502(P).1	3	2	2	3	-	2	2	-	-	-	-	2
	CIV-502(P).2	3	3	3	3	-	2	2	-	-	-	-	2
	CIV-502(P).3	3	3	3	3	-	2	2	-	-	-	-	2
CIV-503	CIV-503.1	3	2	2	2	-	2	2	-	-	-	-	2
	CIV-503.2	3	2	2	2	-	2	2	-	-	-	-	2
	CIV-503.3	3	3	3	2	-	2	2	-	-	-	-	2
	CIV-503.4	3	2	1	2	-	2	1	-	-	-	-	2
	CIV-503.5	3	2	2	1	-	2	2	-	-	-	-	2
CIV-503(P)	CIV-503(P).1	3	2	2	2	-	2	1	-	-	-	-	2
	CIV-503(P).2	3	2	1	2	-	2	1	-	-	-	-	2
	CIV-503(P).3	3	2	1	2	-	2	1	-	-	-	-	2
	CIV-503(P).4	3	2	1	2	-	2	1	-	-	-	-	2
CIV-504	CIV-504.1	3	-	-	-	-	2	1	-	-	-	-	2
	CIV-504.2	3	2	-	1	-	2	1	-	-	-	-	2
	CIV-504.3	3	3	3	3	-	3	3	-	-	-	-	2
	CIV-504.4	3	3	3	3	2	3	3	-	-	-	-	2
	CIV-504.5	3	3	3	3	2	3	3	-	-	-	-	2

Criterion 3

	CIV-504.6	3	3	3	3	3	3	3	-	-	-	-	3
	CIV-504.7	3	3	3	3	2	3	3	-	-	-	-	3
CIV-505	CIV-505.1	2	-	-	-	-	2	-	-	-	-	3	-
	CIV-505.2	2	-	-	-	-	2	-	-	-	-	3	2
	CIV-505.3	2	-	-	-	-	2	-	-	-	-	3	2
	CIV-505.4	2	-	-	-	-	2	2	-	-	-	3	2
	CIV-505.5	2	-	-	-	-	2	-	-	-	-	2	2
CIV-500	CIV-500.1	-	-	-	-	-	1	1	3	3	3	2	3
	CIV-500.2	-	-	-	-	-	-	-	2	2	3	1	2
	CIV-500.3	-	-	-	-	-	1	-	1	1	2	-	2
	CIV-500.4	-	-	-	-	-	1	1	2	2	2	1	2
CIV-511:E1	CIV-511:E1.1	2	-	2	-	-	-	-	-	-	-	-	2
	CIV-511:E1.2	2	-	2	-	-	-	-	-	-	-	-	2
	CIV-511:E1.3	3	2	3	-	2	2	2	-	-	-	2	2
	CIV-511:E1.4	3	2	2	-	2	2	-	-	-	-	-	2
CIV-511:E1	CIV-511:E1.1	2	-	-	-	-	-	2	-	-	-	-	2
	CIV-511:E1.2	2	-	-	-	-	2	2	-	-	-	2	2
	CIV-511:E1.3	2	2	2	2	-	2	2	-	-	-	2	2
	CIV-511:E1.4	2	2	1	1	-	2	1	-	-	-	-	2
	CIV-511:E1.5	2	2	1	1	-	2	-	-	-	-	-	2
CIV-511:E1	CIV-511:E1.1	2	2	2	2	2	2	2	-	-	-	-	2
	CIV-511:E1.2	2	2	2	2	-	2	2	-	-	-	-	2



Criterion 3

	CIV-511:E1.3	2	2	2	2	2	2	2	2	-	-	-	-	2
	CIV-511:E1.4	2	-	-	-	-	2	2	2	-	-	-	2	2
	CIV-511:E1.5	2	-	-	-	-	2	2	2	-	-	-	2	2
CIV-601	CIV-601.1	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-601.2	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-601.3	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-601.4	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-601.5	3	3	3	3	-	2	2	2	-	-	-	-	2
CIV-601(P)	CIV-601(P).1	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-601(P).2	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-601(P).3	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-601(P).4	3	3	3	3	-	2	2	2	-	-	-	-	2
CIV-602	CIV-602.1	2	-	-	-	-	2	2	2	-	-	-	-	2
	CIV-602.2	2	2	2	2	2	2	2	2	-	-	-	-	2
	CIV-602.3	3	3	3	3	2	3	3	3	-	-	-	-	3
	CIV-602.4	3	3	3	2	2	3	2	2	-	-	-	-	3
CIV-602(P)	CIV-602(P).1	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-602(P).2	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-602(P).3	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-602(P).4	3	3	3	3	2	2	2	2	-	-	-	-	2
CIV-603	CIV-603.1	3	3	3	3	-	2	2	2	-	-	-	-	2
	CIV-603.2	3	3	3	3	-	2	2	2	-	-	-	-	2

Criterion 3

	CIV-603.3	3	3	3	3	-	2	2	-	-	-	-	2
	CIV-603.4	3	3	3	3	-	2	2	-	-	-	-	2
CIV-603(P)	CIV-603(P).1	3	3	3	3	-	3	1	-	-	-	-	2
	CIV-6032(P).2	3	3	3	3	-	3	1	-	-	-	1	2
	CIV-603(P).3	3	3	3	3	-	3	2	-	-	-	1	2
	CIV-603(P).4	3	3	3	3	-	3	2	-	-	-	1	2
CIV-604	CIV-604.1	3	2	2	2	-	2	2	-	-	-	-	2
	CIV-604.2	3	3	3	3	1	3	2	-	-	-	-	3
	CIV-604.3	3	2	2	2	1	3	3	-	-	-	-	3
	CIV-604.4	3	2	2	2	-	2	2	-	-	-	-	2
CIV-600	CIV-600.1	-	-	-	-	-	1	1	3	3	3	2	3
	CIV-600.2	-	-	-	-	-	-	-	2	2	3	1	2
	CIV-600.3	-	-	-	-	-	1	-	1	1	2	-	2
	CIV-600.4	-	-	-	-	-	1	1	2	2	2	1	2
CIV-611:E1	CIV-611:E1.1	2	2	2	2	-	2	2	-	-	-	2	2
	CIV-611:E1.2	2	2	2	2	2	2	2	-	-	-	2	2
	CIV-611:E1.3	2	2	1	1	-	2	2	-	-	-	1	2
	CIV-611:E1.4	2	2	2	2	-	2	2	-	-	-	1	2
	CIV-611:E1.5	2	2	2	2	1	2	2	-	-	-	1	2
MTH-611:E1	MTH-611:E1.1	2	2	2	2	2	-	-	-	-	-	-	2
	MTH-611:E1.2	2	2	2	2	2	2	2	-	-	-	-	2
	MTH-611:E1.3	3	2	2	2	2	2	2	-	-	-	-	2

Criterion 3

	MTH-611:E1.4	3	2	2	2	2	2	2	-	-	-	-	2
PHY-611:E1	PHY-611:E1.1	2	1	1	1	-	1	2	-	-	-	-	2
	PHY-611:E1.2	2	2	2	2	-	2	2	-	-	-	-	2
	PHY-611:E1.3	2	2	2	2	-	2	2	-	-	-	-	2
	PHY-611:E1.4	3	2	2	2	-	2	2	-	-	-	-	2
CIV-612:E2	CIV-612:E2.1	2	2	2	2	-	2	2	-	-	-	-	2
	CIV-612:E2.2	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-612:E2.3	3	3	3	2	-	2	2	-	-	-	-	2
	CIV-612:E2.4	3	3	3	3	-	2	2	-	-	-	-	2
CIV-612:E2	CIV-612:E2.1	2	-	-	-	-	-	2	-	-	-	-	2
	CIV-612:E2.2	2	2	2	2	1	2	2	-	-	-	2	2
	CIV-612:E2.3	2	2	2	2	1	2	2	-	-	-	2	2
	CIV-612:E2.4	2	2	2	2	2	2	2	-	-	-	2	2
	CIV-612:E2.5	2	2	2	2	1	2	2	-	-	-	2	2
CIV-612:E2	CIV-612:E2.1	2	-	-	-	-	-	2	-	-	-	-	2
	CIV-612:E2.2	2	2	2	2	2	2	2	-	-	-	-	2
	CIV-612:E2.3	3	3	3	3	3	2	3	-	-	-	-	3
	CIV-612:E2.4	3	3	3	3	3	2	3	-	-	-	-	3
CIV-701	CIV-701.1	2	-	-	-	-	2	2	-	-	-	-	2
	CIV-701.2	2	2	2	-	-	2	2	-	-	-	2	2
	CIV-701.3	2	2	2	2	-	2	2	-	-	-	2	2
	CIV-701.4	2	2	2	2	-	2	2	-	-	-	-	2

Criterion 3

CIV-701(P)	CIV-701(P).1	2	1	-	2	-	1	2	-	-	-	-	2
	CIV-701(P).2	2	1	-	2	-	1	2	-	-	-	-	2
	CIV-701(P).3	2	1	-	2	-	1	2	-	-	-	-	2
	CIV-701(P).4	2	1	-	2	-	1	2	-	-	-	-	2
CIV-702	CIV-702.1	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-702.2	3	2	2	2	1	2	2	-	-	-	-	2
	CIV-702.3	3	2	2	2	1	2	2	-	-	-	-	2
	CIV-702.4	3	2	2	2	-	2	2	-	-	-	-	2
CIV-703	CIV-703.1	2	2	2	2	-	2	-	-	-	-	-	2
	CIV-703.2	2	2	2	2	-	2	2	-	-	-	-	2
	CIV-703.3	2	2	2	2	-	2	2	-	-	-	2	2
	CIV-703.4	2	2	2	2	1	2	2	-	-	-	2	2
CIV-704	CIV-704.1	3	3	3	3	2	2	2	-	-	-	-	3
	CIV-704.2	3	3	3	3	2	2	2	-	-	-	-	3
	CIV-704.3	3	3	3	3	2	2	2	-	-	-	-	3
	CIV-704.4	3	3	3	3	2	2	2	-	-	-	-	3
	CIV-704.5	3	3	3	3	2	2	2	-	-	-	-	3
CIV-705	CIV-705.1	2	3	3	3	3	1	1	-	-	-	-	2
	CIV-705.2	2	2	2	2	2	1	1	-	-	-	-	2
	CIV-705.3	3	2	2	2	3	1	1	-	-	-	-	2
	CIV-705.4	3	2	2	2	3	1	1	-	-	-	-	2
CIV-706	CIV-706.1	2	-	-	-	2	-	-	-	-	-	-	2

Criterion 3

	CIV-706.2	2	-	-	-	2	-	-	2	2	2	-	2
	CIV-706.3	3	2	2	2	2	2	2	-	-	-	-	2
	CIV-706.4	3	2	2	2	2	2	2	-	-	-	1	2
CIV-707	CIV-707.1	2	2	-	-	-	2	2	-	-	-	-	2
	CIV-707.2	3	3	3	3	-	2	2	-	-	-	-	3
	CIV-707.3	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-707.4	3	2	2	2	3	2	2	-	-	-	-	2
CIV-700	CIV-700.1	-	-	-	-	-	1	1	3	3	3	2	3
	CIV-700.2	-	-	-	-	-	1	1	2	2	3	1	2
	CIV-700.3	-	-	-	-	-	1	-	1	1	2	-	2
	CIV-700.4	-	-	-	-	-	1	1	2	2	3	1	2
CIV-711:E1	CIV-711:E1.1	2	-	-	-	-	2	2	-	-	-	-	2
	CIV-711:E1.2	3	2	2	2	-	2	2	-	-	-	-	2
	CIV-711:E1.3	3	2	2	2	1	2	2	-	-	-	-	2
	CIV-711:E1.4	3	2	2	2	1	2	2	-	-	-	-	2
CIV-711:E1	CIV-711:E1.1	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-711:E1.2	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-711:E1.3	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-711:E1.4	3	3	3	3	2	2	2	-	-	-	-	2
CIV-711:E1	CIV-711:E1.1	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-711:E1.2	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-711:E1.3	3	3	3	3	2	2	2	-	-	-	-	2

Criterion 3

	CIV-711:E1.4	3	3	3	3	2	2	2	-	-	-	-	2
CIV-711:E1	CIV-711:E1.1	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-711:E1.2	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-711:E1.3	3	3	3	3	1	2	2	-	-	-	-	2
	CIV-711:E1.4	3	3	3	3	1	2	2	-	-	-	-	2
	CIV-711:E1.5	3	3	3	3	1	2	2	-	-	-	-	2
	CIV-711:E1.6	3	3	3	3	1	2	2	-	-	-	-	2
CIV-801	CIV-801.1	3	3	3	3	-	2	2	-	-	-	-	2
	CIV-801.2	3	-	-	-	-	2	2	-	-	-	-	2
	CIV-801.3	3	3	3	3	-	3	3	-	-	-	-	3
	CIV-801.4	3	3	3	3	2	3	3	-	-	-	2	3
CIV-802	CIV-802.1	3	3	3	3	-	2	2	-	-	-	-	2
	CIV-802.2	3	3	3	3	2	2	2	-	-	-	2	2
	CIV-802.3	3	3	2	2	-	2	2	-	-	-	2	2
	CIV-802.4	3	3	2	2	1	2	2	-	-	-	2	2
CIV-803	CIV-803.1	3	3	3	3	1	2	2	-	-	-	1	3
	CIV-803.2	3	3	3	3	2	2	2	-	-	-	2	3
	CIV-803.3	3	3	3	3	1	2	2	-	-	-	1	3
	CIV-803.4	3	3	3	3	1	2	2	-	-	-	2	3
CIV-804	CIV-804.1	3	3	2	2	1	3	2	-	-	-	1	3
	CIV-804.2	3	3	3	3	-	3	2	-	-	-	1	3
	CIV-804.3	3	3	3	3	1	3	2	-	-	-	1	3

Criterion 3

	CIV-804.4	3	3	3	3	1	3	2	-	-	-	2	3
CIV-811:E1	CIV-811:E1.1	2	-	-	-	-	2	2	-	-	-	-	2
	CIV-811:E1.2	2	2	2	2	-	2	2	-	-	-	-	2
	CIV-811:E1.3	2	2	2	2	-	2	2	-	-	-	-	2
	CIV-811:E1.4	2	2	2	2	2	2	2	-	-	-	-	2
	CIV-811:E1.5	2	2	2	2	2	2	2	-	-	-	-	2
CIV-811:E1	CIV-811:E1.1	2	2	2	2	-	2	2	-	-	-	2	2
	CIV-811:E1.2	2	2	2	2	2	2	2	-	-	-	2	2
	CIV-811:E1.3	3	2	2	2	2	2	2	-	-	-	2	2
	CIV-811:E1.4	3	2	2	2	2	2	2	-	-	-	2	2
MTH-811:E1	MTH-811:E1.1	2	2	2	2	2	2	2	-	-	-	-	2
	MTH-811:E1.2	3	3	3	3	3	2	2	-	-	-	-	2
	MTH-811:E1.3	3	3	3	3	3	2	2	-	-	-	-	2
	MTH-811:E1.4	3	3	2	2	3	2	2	-	-	-	-	2
CIV-812:E2	CIV-812:E2.1	2	2	2	2	-	2	2	-	-	-	-	2
	CIV-812:E2.2	2	2	2	2	2	2	2	-	-	-	-	2
	CIV-812:E2.3	3	3	3	3	3	2	2	-	-	-	-	2
CIV-812:E2	CIV-812:E2.1	2	2	2	2	2	2	2	-	-	-	-	2
	CIV-812:E2.2	3	3	3	3	2	2	2	-	-	-	-	2
	CIV-812:E2.3	3	3	3	3	2	2	2	-	-	-	-	3
	CIV-812:E2.4	3	3	3	3	3	2	2	-	-	-	-	3
CIV-812:E2	CIV-812:E2.1	2	-	-	-	-	2	2	-	-	-	-	2

Criterion 3

	CIV-812:E2.2	2	-	-	-	-	2	2	-	-	-	-	2
	CIV-812:E2.3	2	2	2	2	-	2	2	-	-	-	-	2
	CIV-812:E2.4	2	2	2	2	-	2	2	-	-	-	-	2

Table B.3.1c

**Program Articulation Matrix**

The Program Outcomes (POs) and the Program Specific Outcomes (PSOs) were correlated with the overall contents of the main courses for 2<sup>nd</sup> to 8<sup>th</sup> semesters of the undergraduate program of Civil Engineering, as given in Tables 3.3 and 3.4 using the correlation levels as described below:

- “1” – Slight (Low) Correlation
- “2” – Moderate (Medium) Correlation
- “3” – Substantial (High) Correlation
- “-” indicates there is no correlation.

**Course-PO matrix of all courses**

Semester	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
S2	CIV-201	3	3	2	2	-	2	2	2	-	-	-	2
S3	MTH-303	3	3	3	2	1	3	3	1	-	-	-	1
	ELE-304	2	-	-	-	-	1	-	-	-	-	-	1
	ELE-304(P)	2	-	-	-	-	1	-	-	-	-	-	1
	HSS-301	-	-	-	-	-	1		2	2	2	-	1
	CIV-301	3	3	3	3	-	1	1	1	1	-	-	1
	CIV-301(P)	3	3	3	3	-	1	1	1	1	1	1	1
	CIV-302	3	3	3	3	-	1	1	1	-	-	-	1
	CIV-302(P)	3	3	3	3	-	1	1	1	1	1	1	1
	CIV-303	3	2	3	2	-	1	1	1	1	-	-	-
	CIV-303(P)	3	2	3	2	-	1	1	1	1	1	1	1
	CIV-300	3	3	3	3	3	2	2	2	1	1	1	2
S4	CIV-401	3	3	3	3	-	1	1	1	1	-	1	2
	CIV-402	3	3	3	3	-	1	1	1	1	-	1	2
	CIV-402(P)	3	3	3	3	-	1	1	1	1	1	1	2
	CIV-403	2	1	1	-	-	1	1	1	1	1	1	2
	CIV-403(P)	2	1	1	-	-	1	1	1	1	1	1	2
	CIV-403(SC)	2	1	-	-	-	1	1	1	1	1	1	1
	CIV-404	3	3	3	3	-	1	2	1	1	-	-	-
	CIV-404(P)	3	3	3	3	-	1	1	1	1	1	1	1
	CIV-405	3	3	3	3	-	1	1	1	1	1	1	1
	MTH-406	3	3	3	3	2	3	3	1	-	-	-	1
	CIV-400	3	3	3	3	3	2	2	2	1	1	1	2
S5	CIV-501	3	3	3	3	-	1	1	1	1	1	1	2



Criterion 3

	CIV-501(P)	-	-	-	3	-	1	1	1	1	1	1	2
	CIV-502	3	3	3	3	-	1	1	1	-	-	1	2
	CIV-502(P)	3	3	3	3	-	1	1	1	1	1	1	2
	CIV-503	3	3	3	3	-	1	1	1	-	-	1	2
	CIV-503(P)	3	3	3	3	-	1	1	1	1	1	1	2
	CIV-504	3	3	3	3	2	1	2	1	1	1	1	2
	CIV-505	3	3	3	3		1	1	1	1	1	2	2
	CIV-500	3	3	3	3	3	2	2	2	1	1	1	2
	CIV-511:E1	2	1	1	2	1	2	1	1	-	-	2	2
	CIV-511:E1	2	2	2	2	-	-	-	1	-	-	1	2
	CIV-511:E1	2	2	2	2	2	2	2	1	-	-	1	2
S6	CIV-601	3	3	3	3	-	1	1	1	-	-	1	3
	CIV-601(P)	3	3	3	3	-	1	1	1	1	1	1	3
	CIV-602	3	3	3	3	-	1	1	1	1	1	1	2
	CIV-602(P)	3	3	3	3	-	1	1	1	1	1	1	2
	CIV-603	3	3	3	3	-	1	1	1	-	-	1	3
	CIV-603(P)	3	3	3	3	2	2	1	1	1	1	1	3
	CIV-604	3	3	3	3	2	2	1	1	1	1	2	3
	CIV-600	3	3	3	3	3	2	2	2	1	1	1	2
	CIV-611:E1	2	2	2	2	2	2	2	1	1	-	2	2
	MTH-611:E1	2	2	2	2	2	1	1	1	-	-	-	2
	CIV-612:E2	3	3	3	3	2	2	1	1	1	-	2	3
	CIV-612:E2	2	1	1	1	2	2	3	1	1	1	1	2
	CIV-612:E2	2	3	3	3	3	2	1	1	-	-	1	3
S7	CIV-701	2	2	2	2	-	2	3	1	-	-	1	2
	CIV-701(P)	2	1	1	1	-	2	2	1	1	1	1	2
	CIV-702	3	3	3	3	2	1	1	1	-	-	2	3
	CIV-703	2	2	2	2	1	1	1	-	-	-	1	2
	CIV-704	3	3	3	3	2	1	1	1	-	-	2	3
	CIV-705	2	3	3	3	2	1	1	-	-	-	1	2
	CIV-706	3	3	3	3	2	1	1	1	3	3		2
	CIV-707	3	3	3	3	2	1	1	1	3	3	3	2
	CIV-700	3	3	3	3	3	2	2	2	1	1	1	2
	CIV-711	2	3	3	3	2	2	2	1	1	-	2	3
	CIV-711	3	3	3	3	3	2	1	1	-	-	2	3
	CIV-711	3	3	3	3	3	2	1	1	-	-	2	3
	CIV-711	3	3	3	3	3	2	1	1	1	1	2	3
S8	CIV-801	3	3	3	3	2	3	3	1	-	-	2	3
	CIV-802	3	3	3	3	2	3	3	1	-	-	2	3
	CIV-803	3	3	3	3	2	2	1	1	3	3	3	1
	CIV-804	3	3	3	3	2	2	1	1	2	2	1	2
	PHY-ELE:E1	2	2	2	2	2	2	2	1	-	-	-	2
	CIV-811:E1	3	3	3	3	2	2	2	1	-	-	1	2
	CIV-811:E1	3	3	3	3	2	2	1	1	1	1	1	2
	MTH-811	3	3	3	3	3	2	-	-	-	-	1	2
	CIV-812:E2	3	3	3	3	2	2	3	1	1	1	1	2
	CIV-812: E2	2	2	2	2	1	2	3	1	-	-	2	3
	CIV-812: E2	2	2	2	2	1	2	3	1	-	-	1	3

Table B.3.1d

Course-PSO matrix of all courses

Criterion 3

Semester	Course	PSO1	PSO2	PSO3
S2	CIV-201	2	1	2
S3	ELE-304	-	-	-
	ELE-304(P)	-	-	-
	HSS-301	-	-	-
	CIV-301	3	3	2
	CIV-301(P)	3	3	2
	CIV-302	3	3	2
	CIV-302(P)	3	3	2
	CIV-303	2	1	3
	CIV-303(P)	2	1	3
	CIV-300	3	2	1
	MTH-303	3	3	1
	S4	CIV-401	3	3
CIV-402		3	2	3
CIV-402(P)		3	2	3
CIV-403		3	2	3
CIV-403(P)		3	2	3
CIV-403(SC)		2	1	2
CIV-404		3	2	3
CIV-404(P)		3	2	3
CIV-405		3	2	3
CIV-400		3	2	1
MTH-406		3	3	1
S5	CIV-501	3	3	3
	CIV-501(P)	3	2	3
	CIV-502	3	2	3
	CIV-502(P)	3	2	3
	CIV-503	3	2	3
	CIV-503(P)	3	2	3
	CIV-504	3	2	3
	CIV-505	3	2	3
	CIV-500	3	2	1
	CIV-511:E1	2	2	2
	CIV-511:E1	2	1	2
	CIV-511:E1	2	1	2
S6	CIV-601	3	3	3
	CIV-601(P)	3	3	3
	CIV-602	3	2	3
	CIV-602(P)	3	2	3
	CIV-603	3	2	3
	CIV-603(P)	3	3	3
	CIV-604	3	2	3
	CIV-600	3	2	1
	CIV-611:E1	3	2	2
	MTH-611:E1	2	-	-
	PHY-ELE:E1	1	2	2
	CIV-612:E2	3	3	3
	CIV-612:E2	2	3	3
	CIV-612:E2	3	3	3

Criterion 3

S7	CIV-701	3	1	3
	CIV-701(P)	1	-	-
	CIV-702	3	3	3
	CIV-703	1	-	-
	CIV-704	3	3	3
	CIV-705	3	3	2
	CIV-706	1	1	1
	CIV-707	2	2	2
	CIV-700	3	2	1
	CIV-711	3	3	3
	CIV-711	3	3	3
	CIV-711	3	3	3
	CIV-711	3	3	3
	S8	CIV-801	3	3
CIV-802	3	3	3	
CIV-803	3	2	2	
CIV-804	2	1	1	
CIV-811:E1	3	3	3	
CIV-811:E1	3	3	3	
MTH-811	1	2	2	
CIV-812:E2	3	3	3	
CIV-812: E2	2	3	3	
CIV-812: E2	3	1	2	

*Table B.3.1e*

**CO-PSO mapping matrix of all courses**

CIV-201	CIV-201.1	2	-	1
	CIV-201.2	2	1	2
	CIV-201.3	2	1	2
	CIV-201.4	2	1	2
	CIV-201.5	2	1	2
CIV-301	CIV-301.1	3	1	2
	CIV-301.2	3	1	2
	CIV-301.3	3	1	2
	CIV-301.4	3	1	2
CIV-301(P)	CIV-301(P).1	3	2	2
	CIV-301(P).2	3	1	2
	CIV-301(P).3	3	2	2
	CIV-301(P).4	3	2	2
CIV 302	CIV302.1	1	-	-
	CIV302.2	2	-	1
	CIV302.3	2	-	1
	CIV302.4	2	1	2
	CIV302.5	3	1	2
	CIV302.6	3	1	2
	CIV302.7	3	1	2
CIV 302(P)	CIV 302(P).1	2	-	2
	CIV 302(P).2	2	-	2
	CIV 302(P).3	2	-	2

Criterion 3

	CIV 302(P).4	2	-	3
	CIV 302(P).5	3	1	3
CIV 303	CIV 303.1	2	-	2
	CIV 303.2	3	-	2
	CIV 303.3	3	2	3
	CIV 303.4	3	2	3
	CIV 303.5	3	2	3
CIV 303(P)	CIV 303(P).1	2	1	2
	CIV 303(P).2	2	1	1
	CIV 303(P).3	2	1	1
	CIV 303(P).4	2	1	2
	CIV 303(P).5	2	1	2
MTH-303	MTH-303.1	2	2	1
	MTH-303.2	3	2	1
	MTH-303.3	3	2	1
	MTH-303.4	2	2	1
	MTH-303.5	2	2	1
ELE-304	ELE-304.1	1	-	-
	ELE-304.2	1	-	-
	ELE-304.3	1	-	-
	ELE-304.4	1	-	-
	ELE-304.5	1	-	-
ELE-304(P)	ELE-304(P).1	1	-	-
	ELE-304(P).2	1	-	-
	ELE-304(P).3	1	-	-
	ELE-304(P).4	1	-	-
HSS-301	HSS-301.1	-	-	-
	HSS-301.2	-	-	-
	HSS-301.3	-	-	-
	HSS-301.4	-	-	-
	HSS-301.5	-	-	-
CIV-304	CIV-304.1	1	-	2
	CIV-304.2	1	-	2
	CIV-304.3	2	-	2
	CIV-304.4	2	-	2
	CIV-304.5	2	-	2
CIV-304(P)	CIV-304(P).1	2	-	1
	CIV-304(P).2	2	-	1
	CIV-304(P).3	2	-	1
	CIV-304(P).4	2	-	1
	CIV-304(P).5	2	-	1
CIV-300	CIV-300.1	1	-	-
	CIV-300.2	-	-	1
	CIV-300.3	-	-	1
	CIV-300.4	1	-	-
CIV-401	CIV-401.1	3	2	2
	CIV-401.2	3	3	2
	CIV-401.3	3	3	2
	CIV-401.4	3	2	2
CIV-402	CIV-402.1	3	2	3

Criterion 3

	CIV-402.2	3	2	3
	CIV-402.3	3	2	3
	CIV-402.4	3	2	3
	CIV-402.5	3	2	3
CIV-402(P)	CIV-402(P).1	3	2	3
	CIV-402(P).2	3	2	3
	CIV-402(P).3	3	2	3
	CIV-402(P).4	3	2	3
CIV-403	CIV-403.1	3	2	3
	CIV-403.2	3	2	3
	CIV-403.3	3	2	3
	CIV-403.4	3	2	3
CIV-403(P)	CIV-403(P).1	3	2	3
	CIV-403(P).2	3	2	3
	CIV-403(P).3	3	2	3
	CIV-403(P).4	3	2	3
CIV-403(SC)	CIV-403(SC).1	2	1	2
	CIV-403(SC).2	2	1	2
	CIV-403(SC).3	2	1	2
	CIV-403(SC).4	2	2	3
CIV-404	CIV-404.1	1	1	2
	CIV-404.2	1	1	2
	CIV-404.3	1	1	2
	CIV-404.4	2	2	1
	CIV-404.5	2	2	1
CIV-404(P)	CIV-404(P).1	-	-	2
	CIV-404(P).2	-	-	-
	CIV-404(P).3	2	2	2
	CIV-404(P).4	-	2	-
	CIV-404(P).5	2	2	3
CIV-405	CIV-405.1	2	2	-
	CIV-405.2	2	2	-
	CIV-405.3	2	2	2
	CIV-405.4	3	3	2
	CIV-405.5	3	3	2
MTH-406	MTH-406.1	2	2	1
	MTH-406.2	3	2	1
	MTH-403.3	3	2	1
	MTH-403.4	2	2	1
CIV-400	CIV-400.1	1	-	-
	CIV-400.2	1	-	1
	CIV-400.3	-	-	-
	CIV-400.4	-	1	1
CIV-501	CIV-501.1	3	2	2
	CIV-501.2	3	3	2
	CIV-501.3	3	3	2
	CIV-501.4	3	3	2
	CIV-501.5	3	3	2
CIV-501(P)	CIV-301(P).1	3	2	2

Criterion 3

	CIV-301(P).2	3	2	2
	CIV-301(P).3	3	2	2
	CIV-301(P).4	3	2	2
CIV 502	CIV502.1	3	2	2
	CIV502.2	3	2	2
	CIV502.3	3	2	2
	CIV502.4	3	2	2
	CIV502.5	3	2	1
	CIV502.6	3	2	2
CIV-502(P)	CIV-502(P).1	3	2	2
	CIV-502(P).2	3	3	3
	CIV-502(P).3	3	3	3
CIV-503	CIV-503.1	3	2	2
	CIV-503.2	3	2	2
	CIV-503.3	3	3	3
	CIV-503.4	3	2	3
	CIV-503.5	3	2	3
CIV-503(P)	CIV-503(P).1	3	2	3
	CIV-503(P).2	3	2	3
	CIV-503(P).3	3	2	3
	CIV-503(P).4	3	2	3
CIV-504	CIV-504.1	2	-	-
	CIV-504.2	2	-	2
	CIV-504.3	2	-	2
	CIV-504.4	2	2	2
	CIV-504.5	3	3	3
	CIV-504.6	3	3	3
	CIV-504.7	3	3	3
CIV-505	CIV-505.1	2	2	1
	CIV-505.2	2	2	2
	CIV-505.3	2	2	1
	CIV-505.4	2	2	2
	CIV-505.5	2	1	1
CIV-500	CIV-500.1	1	-	-
	CIV-500.2	2	-	1
	CIV-500.3	-	1	-
	CIV-500.4	1	-	-
CIV-511:E1	CIV-511:E1.1	2	3	2
	CIV-511:E1.2	2	3	2
	CIV-511:E1.3	2	3	2
	CIV-511:E1.4	3	2	2
CIV-511:E1	CIV-511:E1.1	3	2	3
	CIV-511:E1.2	3	2	3
	CIV-511:E1.3	3	2	3
	CIV-511:E1.4	3	2	3
	CIV-511:E1.5	3	2	3
CIV-511:E1	CIV-511:E1.1	2	-	-

Criterion 3

	CIV-511:E1.2	2	-	2
	CIV-511:E1.3	3	2	2
	CIV-511:E1.4	3	-	2
	CIV-511:E1.5	3	2	2
CIV-601	CIV-601.1	3	3	3
	CIV-601.2	3	3	3
	CIV-601.3	3	3	3
	CIV-601.4	3	3	3
	CIV-601.5	3	3	3
CIV-601(P)	CIV-601(P).1	3	3	3
	CIV-601(P).2	3	3	3
	CIV-601(P).3	3	3	3
	CIV-601(P).4	3	3	3
CIV-602	CIV-602.1	2	-	2
	CIV-602.2	2	2	2
	CIV-602.3	3	3	3
	CIV-602.4	3	3	3
CIV-602(P)	CIV-602(P).1	3	2	3
	CIV-602(P).2	3	2	3
	CIV-602(P).3	3	2	3
	CIV-602(P).4	3	2	3
CIV-603	CIV-603.1	3	3	3
	CIV-603.2	3	3	3
	CIV-603.3	3	3	3
	CIV-603.4	3	3	3
CIV-603(P)	CIV-603(P).1	3	3	3
	CIV-603(P).2	3	3	3
	CIV-603(P).3	3	3	3
	CIV-603(P).4	3	3	3
CIV-604	CIV-604.1	3	2	2
	CIV-604.2	3	3	3
	CIV-604.3	3	2	2
	CIV-604.4	3	2	2
CIV-600	CIV-600.1	2	-	1
	CIV-600.2	-	1	-
	CIV-600.3	-	-	2
	CIV-600.4	-	-	2
CIV-611:E1	CIV-611:E1.1	2	2	2
	CIV-611:E1.2	2	2	2
	CIV-611:E1.3	2	2	2
	CIV-611:E1.4	2	2	2
	CIV-611:E1.5	2	2	2
MTH-611:E1	MTH-611:E1.1	2	2	2
	MTH-611:E1.2	2	2	2
	MTH-611:E1.3	3	2	2
	MTH-611:E1.4	3	2	2
PHY-611:E1	PHY-611:E1.1	2	1	1
	PHY-611:E1.2	2	2	2
	PHY-611:E1.3	2	2	2

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	PHY-611:E1.4	3	2	2
CIV-612:E2	CIV-612:E2.1	2	2	2
	CIV-612:E2.2	3	3	3
	CIV-612:E2.3	3	3	3
	CIV-612:E2.4	3	3	3
CIV-612:E2	CIV-612:E2.1	2	-	-
	CIV-612:E2.2	2	2	2
	CIV-612:E2.3	2	2	2
	CIV-612:E2.4	2	2	2
	CIV-612:E2.5	2	2	2
CIV-612:E2	CIV-612:E2.1	2	-	-
	CIV-612:E2.2	2	2	2
	CIV-612:E2.3	3	3	3
	CIV-612:E2.4	3	3	3
CIV-701	CIV-701.1	2	-	-
	CIV-701.2	2	2	2
	CIV-701.3	2	2	2
	CIV-701.4	2	2	2
CIV-701(P)	CIV-701(P).1	2	1	2
	CIV-701(P).2	2	1	2
	CIV-701(P).3	2	1	2
	CIV-701(P).4	2	1	2
CIV-702	CIV-702.1	3	3	3
	CIV-702.2	3	2	2
	CIV-702.3	3	2	2
	CIV-702.4	3	2	2
CIV-703	CIV-703.1	2	2	2
	CIV-703.2	2	2	2
	CIV-703.3	2	2	2
	CIV-703.4	2	2	2
CIV-704	CIV-704.1	3	3	3
	CIV-704.2	3	3	3
	CIV-704.3	3	3	3
	CIV-704.4	3	3	3
	CIV-704.5	3	3	3
CIV-705	CIV-705.1	2	3	3
	CIV-705.2	2	2	2
	CIV-705.3	3	2	2
	CIV-705.4	3	2	2
CIV-706	CIV-706.1	3	2	2
	CIV-706.2	3	2	2
	CIV-706.3	3	2	2
	CIV-706.4	3	2	2
CIV-707	CIV-707.1	3	2	2
	CIV-707.2	3	2	2
	CIV-707.3	3	2	2
	CIV-707.4	3	2	2
CIV-700	CIV-700.1	1	-	-
	CIV-700.2	1	1	-
	CIV-700.3	-	1	-



Criterion 3

	CIV-700.4	1	-	1
CIV-711:E1	CIV-711:E1.1	2	-	-
	CIV-711:E1.2	3	2	2
	CIV-711:E1.3	3	2	2
	CIV-711:E1.4	3	2	2
CIV-711:E1	CIV-711:E1.1	3	3	3
	CIV-711:E1.2	3	3	3
	CIV-711:E1.3	3	3	3
	CIV-711:E1.4	3	3	3
CIV-711:E1	CIV-711:E1.1	3	3	3
	CIV-711:E1.2	3	3	3
	CIV-711:E1.3	3	3	3
	CIV-711:E1.4	3	3	3
CIV-711:E1	CIV-711:E1.1	3	3	3
	CIV-711:E1.2	3	3	3
	CIV-711:E1.3	3	3	3
	CIV-711:E1.4	3	3	3
	CIV-711:E1.5	3	3	3
	CIV-711:E1.6	3	3	3
CIV-801	CIV-801.1	3	3	3
	CIV-801.2	3	3	3
	CIV-801.3	3	3	3
	CIV-801.4	3	3	3
CIV-802	CIV-802.1	3	3	3
	CIV-802.2	3	3	3
	CIV-802.3	3	3	3
	CIV-802.4	3	3	3
CIV-803	CIV-803.1	3	3	3
	CIV-803.2	3	3	3
	CIV-803.3	3	3	3
	CIV-803.4	3	3	3
CIV-804	CIV-804.1	3	3	2
	CIV-804.2	3	3	3
	CIV-804.3	3	3	3
	CIV-804.4	3	3	3
CIV-811:E1	CIV-811:E1.1	2	2	2
	CIV-811:E1.2	2	2	2
	CIV-811:E1.3	3	2	2
	CIV-811:E1.4	3	3	3
	CIV-811:E1.5	3	3	3
CIV-811:E1	CIV-811:E1.1	2	2	2
	CIV-811:E1.2	2	2	2
	CIV-811:E1.3	3	2	2
	CIV-811:E1.4	3	2	2
MTH-811:E1	MTH-811:E1.1	2	-	1
	MTH-811:E1.2	3	1	1
	MTH-811:E1.3	3	2	2
	MTH-811:E1.4	3	2	2
CIV-812:E2	CIV-812:E2.1	3	2	3

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CIV-812:E2	CIV-812:E2.2	3	2	3
	CIV-812:E2.3	3	2	3
	CIV-812:E2.1	3	2	2
	CIV-812:E2.2	3	3	2
	CIV-812:E2.3	3	3	2
	CIV-812:E2.4	3	3	2
CIV-812:E2	CIV-812:E2.1	2	2	2
	CIV-812:E2.2	2	2	3
	CIV-812:E2.3	3	3	3
	CIV-812:E2.4	3	3	3

**Table B.3.1f**

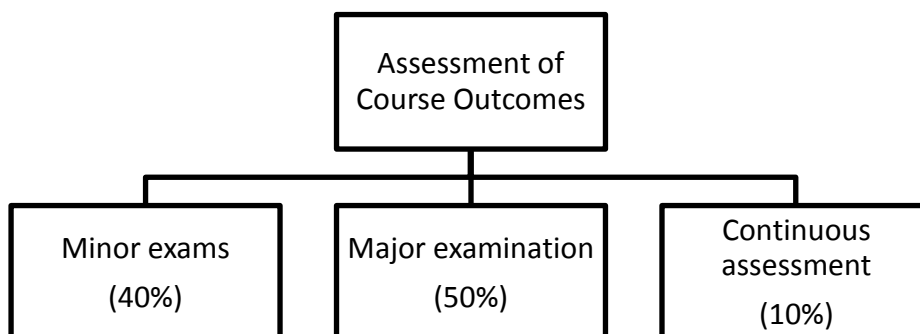
**3.2. Attainment of the Course Outcomes (65)**

**3.2.1. Assessment tools and processes used to gather the data upon which the evaluation of Course Outcomes is based (10)**

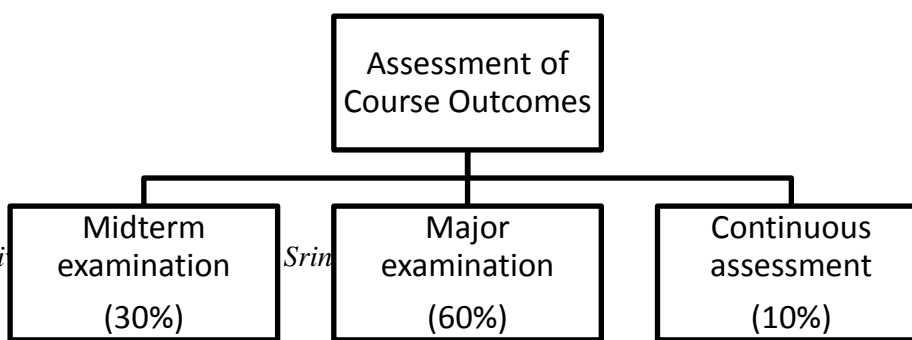
**(A) List of CO assessment processes**

**(a) CO assessment rubrics**

Course outcomes are evaluated on the basis of direct assessment processes which included a major exam at the end of the semester, 2 minor exams during the semester, make-up tests, lab exams, project evaluation and continuous evaluation procedures comprising of class surprise tests, assignments, seminars, presentations, etc. prior to December, 2016. From December, 2016 onwards, the two minor exams have been replaced by a single mid-term examination procedure, while the rest of the assessment processes are the same. The weightages given to each assessment process is as depicted below. (upto December, 2016)



December, 2016 onwards:



**Figure B.3.2****(b) CO assessment tools**

The various assessment tools used to evaluate COs and the frequency with which the assessment processes are carried out are listed in Table 3.7.

**Table 3.7 CO assessment tools and assessment frequency**

<b>Assessment tool</b>	<b>Description</b>	<b>Assessment frequency</b>
Theory exams	Minor exams (Prior to Dec. 2016)	Twice per semester
	Mid-semester exam (Dec. 2016 onwards)	Once per semester
	Semester examination	Once at the end of semester
	Continuous assessment	Continuous during the semester
Lab exams	Continuous assessment	Continuous during the semester
	Major lab examination	Once at the end of semester
Comprehensive viva voce	To test students concepts in civil engineering	Once in complete course
Major project	To test students concepts in design, creative thinking and independent analysis	Once in 7th and 8th semester, each
Seminar	To test students research comprehending ability and communication skills	Once in 7th semester

**Table B.3.2.1****(B) Quality/relevance of assessment tools and processes**

**Theory Exam:** The theory examination consisted of two minors of 20 marks each and a major exam of 50 marks till Dec. 2016. Since December 2016, the examination consists of a midterm examination of 30 marks and an end term exam of 60 marks. The question papers are framed by the concerned course coordinator in accordance to the appropriate course outcome.

**Continuous Assessment:** A continuous assessment of 10 marks is done either in the form of quiz, presentation or assignments by the concerned course coordinator. The questions for home assignments are prepared as per course outcome of the subject by the concerned course coordinator.

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**Lab Exam:** The lab courses provide the students the opportunity to explore experimental methods used in the civil engineering discipline. The lab exam is conducted by a committee formed by the Departmental Examination Coordinator along with the course coordinator. The student submits the record of practical work performed that is continuously monitored by the concerned course coordinator. The final lab exam includes viva- voce examination, submission of written reports and performing of a given experiment.

**Project:** It gives students the opportunity to synthesize and apply the knowledge and analytical skills learned in the different disciplines. The students are allotted to guides by the project and seminar coordinator only after obtaining the student choice regarding the different streams of civil engineering discipline. To take care of all categories of students, proper grouping of 3 or 4 students is done by coordinator considering also the merit of student's up to 6<sup>th</sup> semester level. The project work is started in the seventh semester and continues on to eighth semester.. Continuous evaluation of the project is done by the project guide. The final evaluation is done by the project evaluation committee headed by the HOD, which also consists of an external examiner from sister departments. A bona fide report on the project topic is submitted by each group at the end of the 8<sup>th</sup> semester. The students present their project work before the evaluation committee. The evaluation committee assesses the quality of project work, presentation and communication skills and the response of the students to raised queries.

**Seminar:** The students present a seminar presentation in their 7<sup>th</sup> semester on a topic of their choice and approved by the assigned seminar guide. Seminar is evaluated based on the presentation by the students before an evaluation committee consisting of departmental seminar and project coordinator under the chairmanship of the HOD.

### 3.2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels (55)

#### (a) Course outcome attainment levels

Table 3.8 below shows the attainment levels set for various direct assessment methods. 3 levels have been defined for different attainment levels corresponding to each assessment method.

#### Attainment levels set for various assessment methods

Assessment Method	Level	Attainment levels
Minor	1	50% of the students scoring more than 40% marks
	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks
Major	1	50% of the students scoring more than 40% marks
	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks
Continuous Assessment	1	50% of the students scoring more than 40% marks

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	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks

**Table B.3.2.2a**

**(b) Course outcome calculation of a course**

The calculation of attainment level of a course outcome based on the scheme followed prior to December, 2016 is illustrated below for a given course in Tables 3.9 and 3.10.

**Course evaluated: Hydropower Engineering (CIV-801)**

**CO attainment levels**

Assessment Tool	Attainment level			
	CIV-801.1	CIV-801.2	CIV-801.3	CIV-801.4
Minor 1	-	3	-	3
Minor 2	3	-	3	-
Major	3	3	3	3
Continuous Assessment (Assignment)	3	3	3	3

**Table B.3.2.2b**

**Averaging of CO attainment levels**

Assessment Tool	CIV-801.1	CIV-801.2	CIV-801.3	CIV-801.4
Minor (Average)	3	3	3	3
Major	3	3	3	3
Continuous Assessment (Average)	3	3	3	3
Overall average	3	3	3	3
Overall CO attainment level of course	3 (Level 1)			

**Table B.3.2.2c**

The overall CO attainment level of a course outcome is calculated from the average attainment level for all assessment tools weighted by the above discussed weightages.

$$\text{Overall CO attainment} = \frac{4 (\text{Minor})}{10} + \frac{5 (\text{Major})}{10} + \frac{1 (\text{Continuous Assessment})}{10}$$

Substituting in the above formula

$$\text{Overall CO, say for CO1} = \frac{4 (3)}{10} + \frac{5 (3)}{10} + \frac{1 (3)}{10} = 3$$

The calculation of attainment level of a course outcome based on the scheme being followed from December, 2016 onwards is illustrated below for a given course in Tables 3.11.

Attainment levels of course outcomes

Assessment Tool	CIV 504.1	CIV 504.2	CIV 504.3	CIV 504.4	CIV 504.5	CIV 504.6	CIV 504.7
Mid term	3	3	3	3	-	-	3
End Term	2	2	2	2	2	2	2
Continuous Assessment (Assignment)	3	3	3	3	3	3	3
Overall Average	2.6	2.6	2.6	2.6	2.5	2.5	2.6
Overall CO	2.57						

Table B.3.2.2d

$$\text{Overall CO} = \frac{4(3)}{10} + \frac{5(2)}{10} + \frac{1(3)}{10}$$

Substituting in the above formula

$$\text{Overall CO} = \frac{4(3)}{10} + \frac{5(2)}{10} + \frac{1(3)}{10} = 2.5$$

(c) CO attainment of all courses

CO attainment levels and overall attainment levels of all courses

Semester	Course	CO1	CO2	CO3	CO4	CO5	CO6	CO7	Overall CO attainment
S2	CIV-201	2.0	2.2	2.1	2.3	2.1	-	-	2.14
S3	CIV-301	1.5	1.8	2.3	2.1	-	-	-	1.92
	CIV-301(P)	2.3	2.2	1.9	2.2	-	-	-	2.15
	CIV-302	1.66	1.66	1.66	2.33	2.33	2.33	3	2.13
	CIV-302(P)	3.0	2.0	2.0	2.0	2.0	-	-	2.2
	CIV-303	3.0	3.0	2.0	2.6	2.7	-	-	2.66
	CIV-303(P)	2.5	2.5	2.8	2.7	2.5	-	-	2.6
	CIV-304	3.0	3.0	3.0	3.0	3.0	-	-	3.0
	CIV-304(P)	3.0	3.0	2.8	2.7	2.5	-	-	2.8
	CIV-300	3.0	2.8	2.7	3.0	-	-	-	2.7
S4	CIV-401	3.0	2.1	2.3	2.2	-	-	-	2.4
	CIV-402	2.1	2.0	2.0	2.0	2.1	-	-	2.04
	CIV-402(P)	2.0	2.0	2.1	2.1	-	-	-	2.05
	CIV-403	2.5	2.6	2.4	2.8	-	-	-	2.57

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	CIV-403 (P)	2.5	2.6	2.7	2.8	-	-	-	2.65
	CIV-403 (SC)	2.5	2.4	2.6	2.9	-	-	-	2.6
	CIV-404	3.0	3.0	3.0	3.0	2.9	-	-	2.98
	CIV-404(P)	3.0	3.0	3.0	3.0	3.0	-	-	3.0
	CIV-405	2.6	2.6	3.0	3.0	3.0	-	-	2.84
	MTH-406	2.0	2.1	2.2	2.3	-	-	-	2.15
	CIV-400	3.0	3.0	3.0	3.0	-	-	-	3.0
	S5	CIV-501	2.5	2.1	2.2	2.1	2.4	-	-
CIV-501(P)		2.5	2.2	2.8	2.9	-	-	-	2.60
CIV-502		2.3	2.5	2.4	2.8	2.8	3.0	-	2.63
CIV-502(P)		2.8	2.9	2.8	-	-	-	-	2.83
CIV -503		3.0	2.8	2.7	2.8	2.9	-	-	2.84
CIV -503(P)		2.8	2.7	2.6	2.7	-	-	-	2.70
CIV-504		2.6	2.6	2.6	2.6	2.5	2.5	2.6	2.57
CIV-505		2.5	2.4	2.1	2.2	2.8	-	-	2.40
CIV-500		3.0	3.0	3.0	3.0	-	-	-	3.0
CIV-511		2.8	2.7	2.6	2.8	-	-	-	2.75
S6	CIV-601	2.0	2.1	2.2	2.3	2.4	-	-	2.2
	CIV-601(P)	2.0	2.0	2.0	2.0	-	-	-	2.0
	CIV-602	3.0	2.7	2.6	2.7	-	-	-	2.75
	CIV-602 (P)	3.0	3.0	2.8	2.9	-	-	-	2.92
	CIV -603	2.8	2.9	2.8	2.7	-	-	-	2.8
	CIV -603(P)	2.5	2.6	2.7	2.8	-	-	-	2.65
	CIV -604	3.0	3.0	2.8	2.9	-	-	-	2.95
	CIV-600	3.0	3.0	3.0	3.0	-	-	-	3.0
	CIV -611	3.0	3.0	2.9	2.8	-	-	-	2.95
	CIV-612	2.0	2.1	2.1	2.2	-	-	-	2.07
S7	CIV -701	3.0	3.0	3.0	3.0	-	-	-	3.0
	CIV -701(P)	3.0	2.9	2.8	2.8	-	-	-	2.87
	CIV -702	2.0	2.1	2.2	2.4	-	-	-	2.17
	CIV --703	3.0	3.0	3.0	3.0	-	-	-	3.0
	CIV -704	2.0	2.0	2.1	2.0	2.0	-	-	2.02
	CIV --705	2.8	2.6	2.8	2.7	-	-	-	2.72
	CIV --706	3.0	2.7	2.8	2.9	-	-	-	2.85
	CIV --707	3.0	3.0	3.0	2.9	-	-	-	2.97
	CIV-700	3.0	2.9	3.0	2.9	-	-	-	2.95
	CIV -711	3.0	3.0	3.0	3.0	-	-	-	3.0
S8	CIV -801	3.0	3.0	3.0	3.0	-	-	-	3.0
	CIV -802	2.0	2.0	2.0	2.0	-	-	-	2.0

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	CIV --803	3.0	3.0	2.9	2.8	-	-	-	2.92
	CIV -804	3.0	3.0	3.0	3.0	-	-	-	3.0
	CIV -811	2.6	2.5	2.4	2.2	2.3	-	-	2.4
	MTH -811	2.0	2.1	2.2	2.3	-	-	-	2.15
	CIV -812	2.5	2.3	2.4	2.5	-	-	-	2.42

*Table B.3.2.2e*

### 3.3. Attainment of Program Outcomes and Program Specific Outcomes (65)

#### 3.3.1. Describe assessment tools and processes used for assessing the attainment of each of the POs & PSOs (10)

##### (A) List of PO and PSO assessment tools & processes

###### (a) PO and PSO assessment rubrics

PO/PSO assessment is done by direct assessment methods described in a previous section and indirect assessment methods. 80% weightage is given to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on the attainment levels of course outcomes. Upto December, 2016 a 50% weightage was being given to attainment through major exam, 20% weightage was given to the attainment through 2 minor exams of equal weightage and remaining 10 % assessment was done through continuous assessment in the form of assignments, presentations, group discussions, etc. After December, 2016, 60 % weightage is being given to the major exam, 30% weightage to a single midterm exam instead of 2 minor exams and the remaining 10% weightage is given to the continuous assessment methods.

Indirect assessment is done through program exit survey, alumni survey, employer survey and faculty survey.

Of the 20% weightage given to indirect assessment methods, program exit survey is given a weightage of 5% while as alumni/employer and faculty surveys are given weightages of 10% and 5%, respectively.

The weightages given to different assessment methods for evaluation of PO/PSO attainment levels is depicted below.

Upto December, 2016



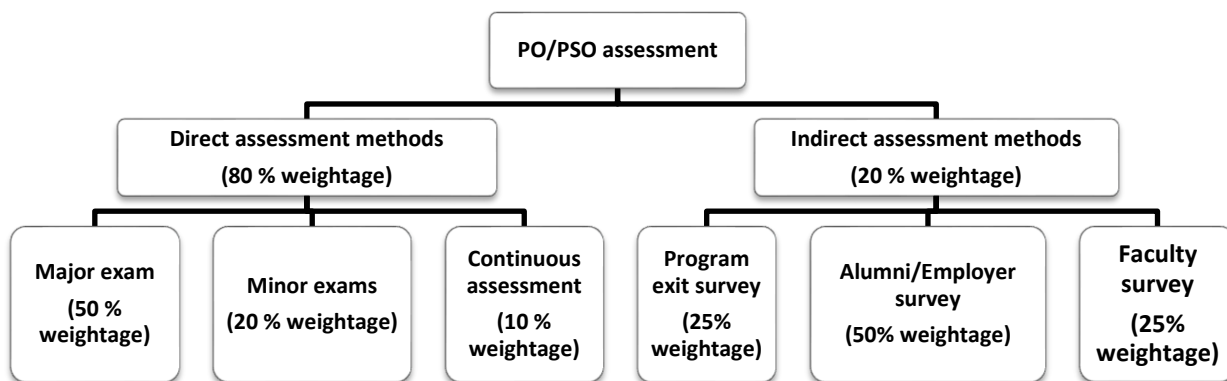


Figure B.3.3.1a

December, 2016 onwards

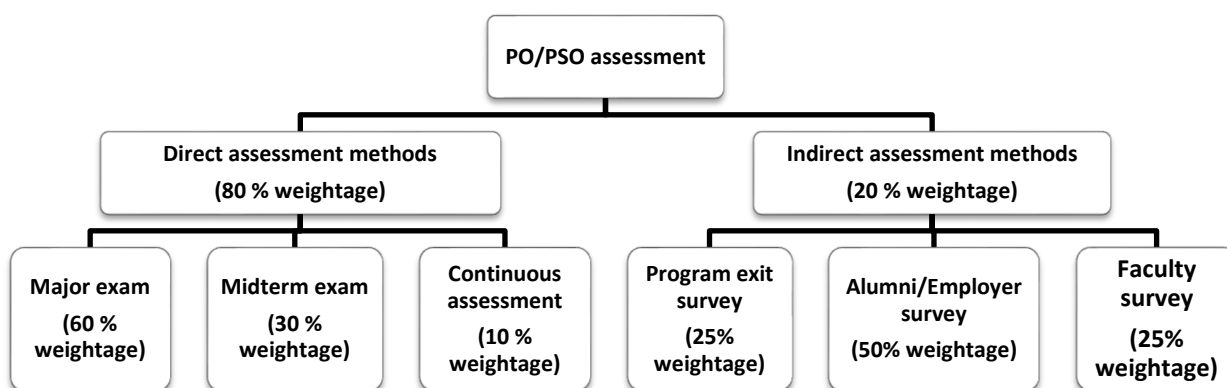


Figure B.3.3.1b

**(b) PO and PSO assessment tools**

The various direct and indirect assessment tools used to evaluate POs/PSOs and the frequency with which the assessment processes are carried out are listed in Table B.3.3.1a

**Assessment tools and assessment frequency**

Assessment tool		Description	Assessment frequency
Direct assessment tools -80%	Theory exams	Minor exams (Prior to Dec. 2016)	Twice per semester
		Mid-semester exam (Dec. 2016 onwards)	Once per semester
		Semester examination	Once at the end of semester
	Lab exams	Continuous assessment	Continuous during the semester
		Major lab examination	Once at the end of semester
		Comprehensive	To test students concepts in

Criterion 3

	viva voce	civil engineering	
	Major project	To test students concepts in design, creative thinking and independent analysis	Once in 7th and 8th semester, each
	Seminar	To test students research comprehending ability and communication skills	Once in 7th semester
Indirect assessment tools-20%	Program exit survey	Assessment of POs after completion of external project exam of students	Once in a year
	Alumni survey	Assessment of POs based on feedback from alumni	Once in a year
	Employer survey	Assessment of POs based on feedback from employers/industrialists	Once in a year
	Faculty survey	Assessment of POs based on feedback from the departmental faculty members	Once in a year

**Table B.3.3.1a**

**(B) Quality/relevance of assessment tools and processes**

**(a) Direct assessment tools and processes**

Direct assessment tools described in a previous are used for direct assessment of POs and PSOs. The attainment of each course outcome is determined as described earlier. The attainment of each PO corresponding to a particular course is determined from the attainment values obtained for each course outcome related to that PO and the CO-PO mapping values. The same procedure is adopted to determine the values of PSO attainment.

The calculation of PO and PSO attainment levels by direct assessment method for Hydropower Engineering (CIV 801) for the scheme followed prior to December, 2016 is illustrated below.

**Course evaluated: Hydropower Engineering**

**CO-PO mapping matrix**

Course		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Hydro-Power Engineering	CIV 801.1	3	3	3	3	-	2	2	1.5	-	-	-	2
	CIV 801.2	3	-	-	-	-	2	2	-	-	-	-	2
	CIV 801.3	3	3	3	3	-	3	3	-	-	-	-	3
	CIV 801.4	3	3	3	3	2	3	3	-	-	-	2	3

**Table B.3.3.1b**

**CO-PSO mapping matrix**

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Course		PSO1	PSO2	PSO3
Hydro-Power Engineering	CIV 801.1	2	3	3
	CIV 801.2	2	2	2
	CIV 801.3	3	3	3
	CIV 801.4	3	3	2

*Table B.3.3.1c*

**CO-attainment matrix**

Assessment Tool	CIV 801.1	CIV 801.2	CIV 801.3	CIV 801.4
Minor (Average)	3	3	3	3
Major	3	3	3	3
Continuous Assessment (Assignment)	3	3	3	3
Overall average	3	3	3	3
Overall CO attainment of the course	3(level 1)			

*Table B.3.3.1d*

**Course-PO mapping matrix**

Course		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Hydro-Power Engineering	Target	3	3	3	3	2	2.5	2.5	1.5	-	-	2	2.5
	Attained	3	3	3	3	2	2.5	2.5	1.5	-	-	2	2.5

*Table B.3.3.1e*

Actual PO level is calculated by taking the average of POs from Table 3.14.

Attained PO level is calculated by considering the COs to which the POs are related from Table 3.14 and corresponding CO attainment from Table 3.10.

$$\text{Attained level for PO1} = \frac{\{(3 \times 3) + (3 \times 3) + (3 \times 3) + (3 \times 3)\}}{4 \times 3} = 3$$

Similarly, target PSO level and attained PSO level are calculated.

**Course-PSO mapping matrix**

Course		PSO1	PSO2	PSO3
Hydro-Power Engineering	Target	2.5	2.75	2.5
	Attained	2.5	2.75	2.5

*Table B.3.3.1f*

The calculation of PO and PSO attainment levels by direct assessment method for Water Resources Engineering (CIV-504) for the scheme followed from December, 2016 onwards is illustrated below.

**CO-PO mapping matrix**

Criterion 3

Course		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Water Resources Engineering	CIV 504.1	3	-	-	-	-	2	2	-	-	-	-	2
	CIV 504.2	3	2	-	2	-	2	2	-	-	-	-	2
	CIV 504.3	3	3	3	3	-	3	3	-	-	-	-	1.5
	CIV 504.4	2.5	3	3	3	2	3	2.5	-	-	-	-	2
	CIV 504.5	3	3	2.5	3	2	3	3	-	-	-	-	2
	CIV 504.6	2.5	3	3	3	3	3	3	-	-	-	-	3
	CIV 504.7	3	3	3	3	1.5	2.5	3	-	-	-	-	3

Table B.3.3.1g

CO-PSO mapping matrix

Course		PSO1	PSO2	PSO3
Water Resources Engineering	CIV 504.1	2	-	-
	CIV 504.2	2	-	2
	CIV 504.3	1.5	-	2
	CIV 504.4	2	2	1.5
	CIV 504.5	3	3	3
	CIV 504.6	2.5	3	2.5
	CIV 504.7	3	3	3

Table B.3.3.1h

Course-PO mapping matrix

Course		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
WRE	Target	2.9	2.7	2.7	2.7	2.4	2.6	2.6	-	-	-	3	2.3
	Attained	2.6	2.3	2.3	2.3	2.2	2.4	2.4	-	-	-	2.5	2.0

Table B.3.3.1i

Course-PSO mapping matrix

Course		PSO1	PSO2	PSO3
WRE	Target	2.4	2.7	2.5
	Attained	2	2.3	2.1

Table B.3.3.1j

Direct attainment is calculated by taking the averages of POs/PSOs of all courses.

(b) Indirect assessment tools and processes

*Criterion 3*

Indirect assessment is done through program exit survey, alumni/ employer survey and faculty survey. Program exit survey is given a weightage of 25% while as alumni/employer and faculty surveys are given weightages of 50% and 25%, respectively.

1. Program exit survey: An exit survey is conducted for the students who have graduated out of the department for that year.
2. Alumni survey: Feedback is taken from alumni to evaluate the attainment of POs and PSOs.
3. Employer survey: Feedback is taken from various employers/industrialists and used for the evaluation of PO/PSO attainment levels.
4. Faculty survey: This includes feedback taken from the faculty members of the department regarding the attainment of POs and PSOs.

Various feedback forms for conducting feedback surveys from the various stakeholders are illustrated in Annexure 3.1

**Indirect Attainment of POs and PSOs for all courses**

Survey	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3
Alumni Survey	2.4	2.4	1.5	3	2.4	2.7	2.7	2.7	2.7	2.7	2.7	2.4	2.4	2.4	2.7
Employer survey	2.49	2.49	2.49	2.4	2.49	2.4	2.28	2.4	2.19	2.4	2.4	2.01	2.4	2.4	2.4
Student survey	1.90	2.05	1.92	2.01	1.71	1.83	1.95	2.19	2.04	1.87	1.77	1.68	1.63	1.83	2.01
Indirect Attainment	2.29	2.3	1.85	2.6	2.25	2.4	2.4	2.45	2.4	2.4	2.35	2.1	2.205	2.255	2.45

*Table B.3.3.1k*

**3.3.2. Results of evaluation of each PO & PSO (55)**

**Attainment of POs for all courses**

Semester	Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
S2	CIV-201	3	2.8	2	2	-	2	2	2	-	-	-	2
S3	CIV-301	2.3	2.71	2.81	2.75	-	1.32	1.85	-	-	-	-	-
	CIV-301(P)	3	2.9	3	2.9	-	1.2	1.2	1	1	1.1	1	1
	CIV-302	2	2.41	2.51	2.08	-	2.13	2.2	-	-	-	-	1.87

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	CIV-302(P)	3	3	3	3	-	0.75	1	1	0.75	1	1	1	
	CIV-303	3	2	2.8	2	-	1	0.9	1	1.1	-	1	1	
	CIV-303(P)	2.9	2	3	2	-	1	1	1.1	1	1	1.2	1	
	CIV-300	3	3	3	3	3	2	2	2	1	1	1	2	
S4	CIV-401	1.7	1.1	1.7	1.1	-	2.5	2	-	-	-	-	2	
	CIV-402	2.75	3	2.5	2.6	-	0.8	1	1	0.9	-	1.1	2	
	CIV-402(P)	3	2.5	3	3	-	0.8	1	1	1	1	1	2	
	CIV-403	2.1	1	1	-	-	1	1.2	1	1	0.75	1	2	
	CIV-403(P)	2	0.9	1	-	-	1	1	1.5	1.1	1	1	2	
	CIV-403(SC)	2.1	1	-	-	-	1.1	1	1.1	1	1	1	1.2	
	CIV-404													
		2.7	2.5	2.2	2	-	2.1	-	-	-	-	-	1.5	
	CIV-404(P)	2.9	2.8	3	3	-	1.2	1	1	0.9	1	1	1.2	
	CIV-405	2.6	-	2.1	-	-	-	-	-	-	-	-	1.6	
	CIV-400	3	3	2.9	2.5	3	2	2	2	1	1	1	2	
S5	CIV-501	3	3	3	3	-	1	1	1	1	1	1	2	
	CIV-501(P)	3	3	3	2.75	-	0.9	1	0.9	1.1	1	1	1.9	
	CIV-502	2.75	2.75	3	3	-	1	1	1	-	-	1	2	
	CIV-502(P)	2.75	2.8	3	2.8	-	1.2	1	1	1.1	0.9	1.1	2	
	CIV-503	2.5	2.9	3	3	-	1.1	1.1	1.2	-	-	1	1.9	
	CIV-503(P)	3	3	2.8	3	-	1	1	1	1	1	1	2	
		CIV-504	2.6	2.3	2.3	2.3	2.2	2.4	2.4	-	-	-	2.5	2
		CIV-505	2.9	2.6	3	3	-	1	1	1	1	1	2	2
		CIV-500	3	2.8	3	2.75	3	2.2	2	2	1.1	1.2	1	2.1
	CIV-511:E1	2	1	1	2	1	2.1	1	1.1	-	-	2	2.2	
S6	CIV-601	3	3	2.75	3	-	1	1	1	-	-	1	3	
	CIV-601(P)	2.9	3	2.5	3	-	0.9	1	0.9	1	1.1	1	3	
	CIV-602	2.8	2.5	3	2.6	-	1.1	1.1	1	1.2	1	1	2	
	CIV-602(P)	3	3	2.6	3	-	1	1	0.75	1	1	1	2	
	CIV-603	2.9	3	2.6	3	-	0.8	1	1	-	-	1	3	
	CIV-603(P)	3	2.9	3	3	2	2	1	0.75	1	0.9	1	2.9	
	CIV-604	2.7	1.6	1.9	2.7	1.6	2.03	1.3	-	-	-	-	1.9	
	CIV-600	3	3	2.75	3	3	2	2	2	1.2	1	1	2.2	
	CIV-611:E1	2	1.9	2	2	1.8	2	2	0.9	1	-	2	2	
	CIV-612:E2	3	3	2.9	3	2	2	1	1.1	1	-	2	3	
S7	CIV-701	2	2	1.9	2	-	2	3	1	-	-	1	2	
	CIV-701(P)	2	1	0.9	1	-	2	2	1	1	1.1	1	2	
	CIV-702	3	3	2.8	3	2	1	0.9	1	-	-	2	3	
	CIV-703	2.25	1.95	1.5	1.75	-	1.5	1.68	-	-	-	2.25	1.87	
	CIV-704	3	3	2.9	3	2	1	1.5	1	-	-	2	3	
	CIV-705	2	3	3	2.8	2	0.75	1	-	-	-	1	2.1	
	CIV-706	2.75	3	3	2.8	2.5	1	1.2	1	3	3	-	2.2	
	CIV-707	2.9	2.9	3	3	2	0.9	1	1	3	3	3	2	
	CIV-700	3	2.9	3	3	3	2	2	2	1	1	1	2	
	CIV-711	1.95	1.57	1.68	1.35	-	1.25	1.18	-	-	-	-	1.15	
S8	CIV-801	3	3	3	3	2	2.5	2.5	1.5	-	-	2	2.5	
	CIV-802	3	3	3	2.9	2	3	3	1	-	-	2	3	
	CIV-803	3	2.75	3	3	2	2	1	0.9	3	3	3	1	
	CIV-804	3	3	2.9	3	2	2	1	1	2	2	1	2	

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	CIV-811:E1	2.8	2.75	3	3	2	2	1	1.2	1	1	1.1	2
	MTH-811	2.75	3	3	3	3	2	-	1.1	-	-	1	2.2
	CIV-812:E2	3	3	3	3	2	2.2	3	1	1	1.2	1	2.2
Attainment	Direct Attainment	2.69	2.48	2.53	2.44	0.92	1.48	1.34	0.94	0.73	0.65	1.11	1.97
	80% of Direct Attainment	2.156	1.98	2.024	1.955	0.74	1.18	1.07	0.75	0.58	0.52	0.89	1.58
	20% of Indirect Attainment	0.459	0.46	0.370	0.520	0.45	0.48	0.48	0.49	0.48	0.48	0.47	0.42
	Final Attainment	2.615	2.45	2.394	2.475	1.19	1.66	1.56	1.25	1.06	1.01	1.36	2.00
	Final Attainment (%)	87.16	81.6	79.8	82.5	40	55.3	52	41.6	35.3	33.6	45.3	66.6

Table B.3.3.2a

Attainment of PSOs for all courses

Semester	Code	PSO1	PSO2	PSO3
S2	CIV-201	2	1.5	2
S3	CIV-301	2.81	2.32	1.81
	CIV-301(P)	2.9	3	2
	CIV-302	1.9	-	1.9
	CIV-302(P)	3	3	2
	CIV-303	2	1.5	3
	CIV-303(P)	1.9	1.5	3
	CIV-300	2.8	2	1.5
S4	CIV-401	2.5	2	2.5
	CIV-402	2.8	2.2	2.7
	CIV-402(P)	3	2.3	2.8
	CIV-403	3	2	3
	CIV-403(P)	2.75	2	3
	CIV-403(SC)	2	1.5	2
	CIV-404	1.55	1.5	1.55
	CIV-404(P)	3	2	3
	CIV-405	2.1	2.1	2.5
CIV-400	2.7	2	1.5	
S5	CIV-501	3	3	3
	CIV-501(P)	2.7	2.3	2.8
	CIV-502	2.5	2.3	2.8
	CIV-502(P)	2.9	2	3
	CIV-503	3	2	2.8
	CIV-503(P)	2.8	1.9	2.8
	CIV-504	2	2.3	2.1
	CIV-505	2.8	2	3
	CIV-500	2.9	2	1.5
	CIV-511:E1	2	2.2	2
S6	CIV-601	3	2.5	3

	CIV-601(P)	2.9	3	2.9
	CIV-602	2.9	2	3
	CIV-602(P)	2.75	2	3
	CIV-603	3	2	2.75
	CIV-603(P)	3	3	3
	CIV-604	2	2	1.7
	CIV-600	3	2	1.5
	CIV-611:E1	3	1.9	2
	CIV-612:E2	2.8	2.75	3
S7	CIV-701	3	1.5	3
	CIV-701(P)	1.5	-	3
	CIV-702	3	2.8	2.9
	CIV-703	2.25	1.74	2.25
	CIV-704	3	3	3
	CIV-705	2.75	2.9	2
	CIV-706	1.9	1.75	1.5
	CIV-707	2	2	2
	CIV-700	3	2	1.5
	CIV-711	2.3	2.65	1.5
	CIV-801	2.5	2.75	2.5
S8	CIV-802	2.9	3	3
	CIV-803	3	2	2
	CIV-804	2	1.5	1.5
	CIV-811:E1	2.9	2.9	2.3
	MTH-811	2	2	2.9
	CIV-812:E2	3	2.9	3
Attainment	Direct Attainment	2.59	2.12	2.42
	80% of Direct Attainment	2.07	1.70	1.93
	20% of Indirect Attainment	0.441	0.451	0.490
	Final Attainment	2.511	2.151	2.42
	Final Attainment (%)	83.7	71.7	80.66

*Table B.3.3.2b*

**ANNEXURE 3.1**

**FEEDBACK FORMS**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**Students' Feedback Form**



*Criterion 3*

Name of the student \_\_\_\_\_

Batch \_\_\_\_\_

Dear student,

Kindly read the Vision and Mission, Programme Educational Objectives, Programme Outcomes and Programme Specific Outcomes of the Department of Civil Engineering, NIT Srinagar in the following sections and provide your valuable feedback in the subsequent sections, as instructed.

**Vision** "To make the Department a centre of excellence in teaching, research and development, and consultancy" And "To produce technically competent, motivated and ethically strong civil engineers who, through their excellence can contribute to the economic and social development of mankind at regional, national and international levels."

**Mission**

- To promote academic growth in the field of Civil Engineering by offering state-of-the-art undergraduate and postgraduate programmes.
- To provide knowledge base and consultancy services in all areas of Civil Engineering for industry and societal needs
- To inculcate higher moral and ethical values among the students to become competent Civil Engineers of the excellent overall leadership qualities
- To establish the Centre of Excellence in the emerging areas of research related to Civil Engineering and its allied fields
- To interact with the industry regularly and offer solutions to their problems

**Programme Educational Objectives**

**PEO1:** To produce professionally competent Civil Engineers, capable of applying the knowledge of contemporary Science and Technology to meet the challenges in the field of Civil Engineering and to serve the Society.

**PEO2:** To prepare the Civil Engineering graduates to work in industry, government or other organizations in different capacities involving individual and team work.

**PEO3:** To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence and independent thinking.

**PEO4:** To impart the training in problem visualization, surveying, analysis and planning for its solution.

**PEO5:** To impart the training for development of laboratory and design skills, communication skills, software and other modern tool usage among the students.

**PEO6:** To inculcate in the students the ability to take up the innovative research projects and top conduct investigations of complex civil engineering problems using research based methods, thus urging them for higher studies.

**Programme Outcomes**

**PO1: Engineering knowledge:** To apply the basic knowledge of contemporary Science and Technology along with Civil Engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.

**PO2: Problem analysis:** To identify, formulate and analyse a complex civil engineering problem supported by literature survey leading to substantial conclusions.

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**PO3: Design / development of solutions:** To obtain solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.

**PO4: Conduct investigations of complex problems:** To apply systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.

**PO5: Modern tool usage:** To develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modelling of complex civil engineering problems, duly identifying the limitations.

**PO6: The engineer and society:** To utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.

**PO7: Environment and sustainability:** To ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.

**PO8: Ethics:** To adhere to professional ethics and norms, and respect human values while practising the engineering profession.

**PO9: Individual and team work:** To perform efficiently as a member or leader of a team or as an individual in diverse work environments

**PO10: Communication:** To deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.

**PO11: Project management and finance:** To implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.

**PO12: Life-long learning:** To have inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments.

### **Program Specific Outcomes**

**PSO1:** Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as softwares towards solving technical problems requiring civil engineering interventions.

**PSO2:** Ability to furnish and/or analyse designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.

**PSO3:** Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.

### **Feedback section**

1. What would you say about the **Vision** of the department? Suggest any modifications/improvements.
2. What would you say about the **Mission** of the department? Suggest any modifications/improvements.

*Criterion 3*

3. (a) To what extent do you feel the **Programme Educational Objectives (PEOs)** mentioned in previous section are being fulfilled. Also, provide your suggestions for modification or improvement of any of the PEOs.

*Rating for degree of fulfilment is as follows: Excellent = 5, Good = 4, Satisfactory = 3, Unsatisfactory = 2, Very unsatisfactory = 1.*

PEOs	Degree of fulfillment					Suggested improvement/modification
	5	4	3	2	1	
PEO1						
PEO2						
PEO3						
PEO4						
PEO5						
PEO6						

(b) Any other suggestion regarding PEOs: \_\_\_\_\_

4. (a) To what extent do you feel the **Programme Outcomes (POs)** and **Programme Specific Outcomes (PSOs)** mentioned in previous section are being achieved. Also, provide your suggestions for modification or improvement of any of the POs and PSOs.

PEOs	Degree of fulfillment					Suggested improvement/modification
	5	4	3	2	1	
PO1						
PO2						
PO3						
PO4						
PO5						
PO6						
PO7						
PO8						
PO9						
PO10						
PO11						
PO11						
PSO1						
PSO2						

*Criterion 3*

<b>PSO3</b>						
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(b) Any other suggestion regarding POs/PSOs: \_\_\_\_\_

\_\_\_\_\_

5. Any other suggestions for the department \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Signature**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**Alumni Feedback Form**

Name \_\_\_\_\_

Batch \_\_\_\_\_

Dear Alumnus/Alumna

Kindly read the Vision and Mission, Programme Educational Objectives, Programme Outcomes and Programme Specific Outcomes of the Department of Civil Engineering, NIT Srinagar in the following sections and provide your valuable feedback in the subsequent sections, as instructed.

**Vision** "To make the Department a centre of excellence in teaching, research and development, and consultancy" And "To produce technically competent, motivated and ethically strong civil engineers who, through their excellence can contribute to the economic and social development of mankind at regional, national and international levels."

**Mission**

- To promote academic growth in the field of Civil Engineering by offering state-of-the-art undergraduate and postgraduate programmes.
- To provide knowledge base and consultancy services in all areas of Civil Engineering for industry and societal needs
- To inculcate higher moral and ethical values among the students to become competent Civil Engineers of the excellent overall leadership qualities
- To establish the Centre of Excellence in the emerging areas of research related to Civil Engineering and its allied fields
- To interact with the industry regularly and offer solutions to their problems

**Programme Educational Objectives**

**PEO1:** To produce professionally competent Civil Engineers, capable of applying the knowledge of contemporary Science and Technology to meet the challenges in the field of Civil Engineering and to serve the Society.

**PEO2:** To prepare the Civil Engineering graduates to work in industry, government or other organizations in different capacities involving individual and team work.

**PEO3:** To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence and independent thinking.

**PEO4:** To impart the training in problem visualization, surveying, analysis and planning for its solution.

**PEO5:** To impart the training for development of laboratory and design skills, communication skills, software and other modern tool usage among the students.

**PEO6:** To inculcate in the students the ability to take up the innovative research projects and top conduct investigations of complex civil engineering problems using research based methods, thus urging them for higher studies.

**Programme Outcomes**

### *Criterion 3*

**PO1: Engineering knowledge:** To apply the basic knowledge of contemporary Science and Technology along with Civil Engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.

**PO2: Problem analysis:** To identify, formulate and analyse a complex civil engineering problem supported by literature survey leading to substantial conclusions.

**PO3: Design / development of solutions:** To obtain solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.

**PO4: Conduct investigations of complex problems:** To apply systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.

**PO5: Modern tool usage:** To develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modeling of complex civil engineering problems, duly identifying the limitations.

**PO6: The engineer and society:** To utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.

**PO7: Environment and sustainability:** To ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.

**PO8: Ethics:** To adhere to professional ethics and norms, and respect human values while practising the engineering profession.

**PO9: Individual and team work:** To perform efficiently as a member or leader of a team or as an individual in diverse work environments

**PO10: Communication:** To deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.

**PO11: Project management and finance:** To implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.

**PO12: Life-long learning:** To have inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments.

### **Program Specific Outcomes**

**PSO1:** Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as softwares towards solving technical problems requiring civil engineering interventions.

**PSO2:** Ability to furnish and/or analyse designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.

**PSO3:** Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.

**Feedback section**

1. What would you say about the **Vision** of the department? Suggest any modifications/improvements.
2. What would you say about the **Mission** of the department? Suggest any modifications/improvements.
3. (a) To what extent do you feel the **Programme Educational Objectives (PEOs)** mentioned in previous section are being fulfilled. Also, provide your suggestions for modification or improvement of any of the PEOs.

Rating for degree of fulfillment is as follows: Excellent = 5, Good = 4, Satisfactory = 3, Unsatisfactory = 2, Very unsatisfactory = 1.

PEOs	Degree of fulfillment					Suggested improvement/modification
	5	4	3	2	1	
PEO1						
PEO2						
PEO3						
PEO4						
PEO5						
PEO6						

(b) Any other suggestion regarding PEOs: \_\_\_\_\_

4. (a) To what extent do you feel the **Programme Outcomes (POs)** and **Programme Specific Outcomes (PSOs)** mentioned in previous section are being achieved. Also, provide your suggestions for modification or improvement of any of the POs and PSOs.

PEOs	Degree of fulfillment					Suggested improvement/modification
	5	4	3	2	1	
PO1						
PO2						
PO3						
PO4						
PO5						
PO6						
PO7						
PO8						
PO9						

Criterion 3

<b>PO10</b>						
<b>PO11</b>						
<b>PO11</b>						
<b>PSO1</b>						
<b>PSO2</b>						
<b>PSO3</b>						

(b) Any other suggestion regarding POs/PSOs: \_\_\_\_\_

\_\_\_\_\_

5. Any other suggestions for the department \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Signature**



**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**Employers' Feedback Form**

Name of the department/firm/organization/industry \_\_\_\_\_

Employer's name and designation \_\_\_\_\_

Number of NIT Srinagar Department of Civil Engg graduate alumni employed \_\_\_\_\_

Time since employed \_\_\_\_\_

Dear employer,

Kindly read the Vision and Mission, Programme Educational Objectives, Programme Outcomes and Programme Specific Outcomes of the Department of Civil Engineering, NIT Srinagar in the following sections and provide your valuable feedback in the subsequent sections, as instructed.

**Vision** "To make the Department a centre of excellence in teaching, research and development, and consultancy" And "To produce technically competent, motivated and ethically strong civil engineers who, through their excellence can contribute to the economic and social development of mankind at regional, national and international levels."

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- To promote academic growth in the field of Civil Engineering by offering state-of-the-art undergraduate and postgraduate programmes.
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### Programme Outcomes

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**PSO3:** Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.

**Feedback section**

1. What would you say about the **Vision** of the department? Suggest any modifications/improvements.
2. What would you say about the **Mission** of the department? Suggest any modifications/improvements.
3. (a) From the performance of the NIT Srinagar Department of Civil Engg graduate alumni employed in your organization, to what extent do you feel the **Programme Educational Objectives (PEOs)** mentioned in previous section are being fulfilled. Also, provide your suggestions for modification or improvement of any of the PEOs.

Rating for degree of fulfilment is as follows: *Excellent = 5, Good = 4, Satisfactory = 3, Unsatisfactory = 2, Very unsatisfactory = 1.*

PEOs	Degree of fulfillment					Suggested improvement/modification
	5	4	3	2	1	
PEO1						
PEO2						
PEO3						
PEO4						
PEO5						
PEO6						

(b) Any other suggestion regarding PEOs: \_\_\_\_\_

4. (a) To what extent do you feel the **Programme Outcomes (POs)** and **Programme Specific Outcomes (PSOs)** mentioned in previous section are being achieved. Also, provide your suggestions for modification or improvement of any of the POs and PSOs.

PEOs	Degree of fulfillment					Suggested improvement/modification
	5	4	3	2	1	
PO1						
PO2						
PO3						
PO4						
PO5						
PO6						
PO7						
PO8						
PO9						

Criterion 3

<b>PO10</b>						
<b>PO11</b>						
<b>PO11</b>						
<b>PSO1</b>						
<b>PSO2</b>						
<b>PSO3</b>						

(b) Any other suggestion regarding POs/PSOs: \_\_\_\_\_

\_\_\_\_\_

5. Any other suggestions for the department \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Signature**

Criterion 4

<b>CRITERION 4</b>	<b>STUDENTS' PERFORMANCE</b>	<b>Max. Marks: 100 Claimed:90.09</b>
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**4.1 Enrolment Ratio (18)**

<b>Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)</b>	<b>2017- 2018</b>	<b>2016-2017</b>	<b>2015-2016</b>
Sanctioned intake of the program (N)	123	123	123
Total number of students admitted in first year <i>minus</i> number of students migrated to other programs/institutions plus no. of students migrated to this program (N1)	108	81	111
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	0	0
Separate division students, if applicable (N3)	0	0	0
Total number of students admitted in the Program (N1 + N2 + N3)	108	75	111

*Table B.4.1a*

<b>Year of Entry</b>	<b>Total No of students admitted in the program (N1+N2+N3)</b>	<b>Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study)</b>			
		<b>I Year</b>	<b>II Year</b>	<b>III Year</b>	<b>IV Year</b>
CLAY (2017-2018)	108				
CAY m1 (2016-2017)	75	55			
CAY m2 (2015-2016)	111	85	78		
CAY m3 (2014-2015)	118	92	85	72	
LYG (2013-2014)	95	76	67	36	31
LYG m1 (2012-2013)	115	92	86	79	63
LYG m2 (2011-2012)	119	98	92	85	76

*Table B.4.1b*

Criterion 4

Year of Entry	Total No of students admitted in the program (N1+N2+N3)	Number of students who have successfully graduated			
		I Year	II Year	III Year	IV Year
CLAY (2017-2018)	108				
CAY m1 (2016-2017)	81	81			
CAY m2 (2015-2016)	111	111	111		
CAY m3 (2014-2015)	118	118	118	118	
LYG (2013-2014)	95	95	95	95	90
LYG m1 (2012-2013)	115	115	115	115	108
LYG m2 (2011-2012)	119	119	119	119	115

**Table B.4.1c**

*Enrolment Ratio = Average of Total students admitted in the 1<sup>st</sup> year / Sanctioned intake of program for the previous 3 academic years including Current Academic Year (CAY)*

	N (From Table 4.1)	N1(From Table 4.1)	Enrolment Ratio
<b>2017-2018</b>	123	108	87.8
<b>2016-2017</b>	123	81	65.8
<b>2015-2016</b>	123	111	90.2

**Table B.4.1d**

Average = [(ER1 + ER2 + ER3)/3]: 81.26

Assessment: 18

**4.2. Success Rate in the stipulated period of the program (18.31)**

**4.2.1. Success rate without backlogs in any semester/year of study (13.31)**

*SI= (Number of students who have graduated from the program without backlog)/ (Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable) Average SI = Mean of Success Index (SI) for past three batches*

Criterion 4

Item	Latest Year of Graduation, LYG(CAYm3) 2013-2017	Latest Year of Graduation minus 1, LYGm1,(CAYm4) 2012-2013	Latest Year of Graduation minus 2, LYGm2,(CAYm5) 2011-2012
<b>X</b> Number of students admitted in the corresponding First Year + admitted in 2 <sup>nd</sup> year via lateral entry and separate division, if applicable	95	115	119
<b>Y</b> Number of students who have graduated without backlogs in the stipulated period	31	63	76
<b>Success Index (SI=Y/X)</b>	0.326	0.547	0.638

**Table B.4.2.1**

**Average SI [(SI1 + SI2 + SI3) / 3]: 0.503**

Success rate without backlogs in any year of study = 15 [Average SI] = 15 X 0.503 = 7.55

**4.2.2 Success rate with backlog in stipulated period (actual duration of the programme) (4.75)**

*SI= (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable)*

*Average SI = mean of Success Index (SI) for past three batches.*

Item	Latest Year of Graduation, LYG(CAYm3) 2013-2014	Latest Year of Graduation minus1, LYGm1,(CAYm4) 2012-2013	Latest Year of Graduation minus 2, LYGm2,(CAYm5) 2011-2012
<b>X</b> Number of students admitted In the corresponding First Year + admitted in 2 <sup>nd</sup> year via Lateral entry and separate division, if applicable	95	115	119
<b>Y</b> Number of students who have	90	108	115

Criterion 4

<b>graduated in the stipulated period</b>			
<b>Success Index (SI=Y/X)</b>	0.947	0.939	0.966

**Table B.4.2.2**

**Average SI [ (SI1 + SI2 + SI3) / 3 ]: 0.95**

Success rate = 5 x Average SI = 5 X 0.95 = 4.75

**4.3. Academic Performance in Second Year (7.45)**

*Academic Performance Level = Average API (Academic Performance Index)*

*API = ((Mean of 2<sup>nd</sup> Year Grade Point Average of all successful Students on a 10 point-scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)*

*Successful students are those who are permitted to proceed to the third year.*

<b>Academic Performance</b>	<b>2016-2017</b>	<b>2015-2016</b>	<b>2014-2015</b>
<b>Mean of CGPA or Mean Percentage of all successful students (X)</b>	6.95	7.04	6.65
<b>Total no. of successful students (Y)</b>	109	118	95
<b>Total no. of students appeared in the examination (Z)</b>	109	118	95
<b>API = x* (Y/Z)</b>	6.95	7.04	6.65

**Table B.4.3**

**Average API [(AP1 + AP2 + AP3)/3] = 6.88**

**4.4. Placement, Higher Studies and Entrepreneurship (29.58)**

<b>Item</b>	<b>CAY m1 2016-2017</b>	<b>CAY m2 2015-2016</b>	<b>CAY m3 2014-2015</b>
Total No. of Final Year Students (N)	95	115	119
No. of students placed in companies or Government Sector (X)	65	72	75
No. of students admitted to higher studies with valid qualifying scores	10	21	31



Criterion 4

(GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (Y)			
No. of students turned entrepreneur in engineering/technology (Z)	5	3	0
X+Y+Z	80	96	106
Placement Index : (X + Y + Z )/N	0.84	0.83	0.89

**Table B.4.4**

Average placement [(P1 + P2 + P3)/3]: 0.85

Assessment [30 × average placement]: 25.6

**4.5 Professional Activities (17)**

**4.5.1 Professional societies / chapters and organizing engineering events (04)**

(Instruction: The institution may provide data for past three years).

**2017-2018**

**1. ‘TechVeganza’ Spring 2017**

Name of Event: RESER-WHERE--

This event was about construction of masonry reservoir whose capacity should be 120 liters. It was a team event and each team comprised of 2 or 3 members.

Name of Event: THE ESTIMATER

As this event was based on the estimation skills and observation power which is the basic need in civil engineering, it judged the estimating ability of the participants for better accuracy and precision.

The final round judged the accuracy and speed of the engineers in various fields like traffic engineering and logistics while testing their mental strength and sharpness in different situations.

Name of Event: TRUSS-O-MANIAC

The competition was to check the creativity and technical knowledge of the participants, they will be asked to build a truss. It tests the students' theoretical knowledge and how effectively they can use it to build and give life to practical working models. Drawing or designing (isometric and elevation) with proper dimensioning on a paper under the surveillance of the organizing team.

**2016-17**

**1. ‘TechVeganza’ Spring 2016**

**Consolidated Abstract**

S.No.	Name of Event	Coordinator(s)	Team Members
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Criterion 4

		Name	Sem.	Cell No.	
1	MODSHIP	RAJESH KUMAR	6 <sup>th</sup>	9018728898	Rajesh(9622149170), Akshay (8715967879)
2	TRUSS THY BRIDGE	VAIBHAV KHANDELWAL	6 <sup>th</sup>	9086411077	APARAJITA TIWARI VIBHASH KUMAR(9018492507)
3	THE ESTIMATOR	SUSHMEET K CHOUDHARY	6 <sup>th</sup>	9469509179	ROHIT ATTRI ASHISH KR. CHIB
4	CITY- SMART	SHUBHAM PATHAK	6 <sup>th</sup>	9086413447	RISHABH KUMAR NIKET GUPTA

Table B.4.5.1a

S.No.	Name of Event	Event Budget (Materials, Stationary, etc.) 'A' (Rs)	Prize Money (1 <sup>st</sup> +2 <sup>nd</sup> +3 <sup>rd</sup> position) 'B' (Rs)	Total Event Budget (A+B) (Rs)
1	MODSHIP	Rs 4000	Rs3000+Rs2000+Rs1000=Rs6000	Rs 10,000/=
2	TRUSS THY BRIDGE	Rs 5000	Rs4000+Rs2500+Rs1500=Rs8000	Rs 13,000/=
3	THE ESTIMATOR	Rs 1000	Rs3000+Rs2500+Rs1500=Rs7000	Rs 8,000/=
4	CITY-SMART	Rs 500	Rs4000+Rs2500+Rs1500=Rs8000	Rs 8,500/=
<b>TOTAL</b>		Rs 10,500/-	Rs 29,000/=	<b>Rs. 39,500/=</b>

Table B.4.5.1b

Total Approx. Expenditure Involved = Rs. 39,500/= (Rs. thirty-nine thousand five hundred only) for All Events

**Dr. Mohammad Shafi Mir**

Professor

Department Coordinator- Techvaganza-2015

**2015-16**

**1. Techvaganza Spring 2015**

Name of Event: BRIDGE THE GORGE

PURPOSE: to bring your own innovative bridge model and create a revolution in field of civil engineering.

THEME: Bridges are one of the most useful and magnificent structures of the modern civilization. With ever-improving designs, bridges carry loads of immense magnitude and nature and are also expected to handle incidental loads due to natural calamities.

Name of Event: FILTER THE LITTER

#### *Criterion 4*

Participants in the event were subjected to a challenge to make a sand filter that can clean translucent water to make it look transparent with naked eyes. Such a sand filter must filter water at fastest rate to be itself best of the rest

Name of Event: KONSTRUKTOR

Civil engineering nurtures upon innovations pertaining sustainable development alongside this technocratic world. Eradicate your anxiety and construct any civil engineering model which will be admired by others. This competition was to test the creativity, dexterity and aesthetic sense of the participants.

#### 2. A Planning Competition: College Planning

Planners share a belief that something can be done about improving and maintaining our human-made and natural environments. The purpose of this event is to develop an appreciation of the role of proper planning in avoiding chaotic and destructive consequences of random construction methods.

#### **4.5.2 Publication of technical magazines, newsletters, etc.(03)**

1. NIT Srinagar annual college magazine (2017, 2016, 2015)

#### **4.5.3 Participation in inter-institute events by students of the program of study (10)**

##### **2017-2018**

1. E-summit (organized by IIT Bombay)

Students from the department participated in the event

##### **2016-17**

1. Inter-NIT Sports Meet (organized by NIT Srinagar)

Students from the department participated in the event

##### **2015-16**

1. IIT Bombay-Reformation (tech event)

Students from the department participated in the event.

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2017-18**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
1	Dr. A. R. Dar	01/03/1959	Ph.D.	Univ of Kashmir	Univ of Roorkee	Univ. of Birmingham, UK	Structural Engineering		Professor		REGULAR			AEXPM2145M	450640993849	YES
2	Dr. M. A. Lone	20/10/1957	Ph.D.	IEI Kolkata	IIT Roorkee	Univ of Kashmir	Water Resources Engineering	16/12/1989	Professor	22/06/2006	REGULAR	---	38	ABEPL2360D	Awaited	YES
3	Dr. S. R. Shah		Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	Water Resources Engineering		Professor	18/09/2013	REGULAR					YES
4	Dr. J. A. Bhat	25/4/1965	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Delhi	Structural Engineering	Sept. 1989	Professor	18/09/2013	REGULAR	--	29	AFFPB6037G	827785574407	YES
5	Dr. A. Q. Dar	02/01/1996	Ph.D.	Univ of Kashmir	Univ of Kashmir	Univ of Kashmir	Water Resources Engineering	16/12/1989	Professor	18/09/2013	REGULAR	---	28	ADIPD2209-F	Awaited	YES
6	Dr. M. A. Ahanger	08/03/1966	Ph.D.	REC Sgr	IIT Delhi	Univ. of Kashmir	Water Resources Engineering	16/12/1989	Professor	18/09/2013	REGULAR		28	ADHPA7760P	238865084637	YES
7	Dr. M. A. Tantary	07/03/1967	Ph.D.	Univ of Kashmir	IIT Delhi	Univ of Roorkee	Structural Engineering		Professor	18/09/2013	REGULAR					YES

*Table B.5a*

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2017-18**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
8	Dr M S Mir	11/09/1967	Ph.D.	Univ of Kashmir	Univ of Roorkee	IIT Bombay	Transportation Engineering	01/03/1994	Professor	18/09/2013	REGULAR			AFGPM0987F	507451232000	YES
9	Er. F A Mir	21/04/1960	M Tech	Univ of Kashmir	IIT Delhi	----	Geotechnical Engineering	11-091984	Associate Professor	01-01-2006	REGULAR	01	33yrs, 6mths		awaited	YES
10	Dr. J A Naqash	10/06/1957	Ph.D.	Univ of Kashmir	Univ of Roorkee	IIT Roorkee	Structural Engineering		Assoc. Professor		REGULAR				awaited	YES
11	Dr J M Banday	31/03/1959	Ph.D.	Univ of Kashmir	IIT Delhi	IISc Bangalore	Structural Engineering		Assoc. Professor		REGULAR				awaited	YES
12	Er. Danish Ahmad	12/07/1961	M. Tech.	Univ of Kashmir	Univ of Kashmir	---	Environmental Engineering	01/05/1984	Assoc. Professor		REGULAR	--	34	ADJPA9826E	409391466528	YES
13	Dr. M. Y Shah	11/07/1967	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	Geotechnical Engineering	03/03/1994	Assoc. Professor	01/11/2008	REGULAR	--	26 + years	AOIPS3141J	716216447628	YES
14	Dr. B A Mir	12/12/1965	Ph.D.	Univ of Kashmir	IISc Bangalore	IIT Bombay	Geotechnical Engineering	04/01/1996	Assoc. Professor	01/07/2011 (actual due date: 04/01/2010)	REGULAR	1.5	25	AEXPM7145M	570940993869	YES

**Table B.5b**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2017-18**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Dept? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMIC (Years)			
15	Er A A Masoodi	01/05/1965	M. Tech.	Univ of Kashmir	IIT Delhi	----	Structural Engineering	26/10/1996	Assoc. Professor	01/07/2011	REGULAR	3.5	22			YES
16	Er R R Mir	26/03/1970	M. Tech.	Univ of Kashmir	Univ of Kashmir	----	Environmental Engineering	26/10/1996	Assoc. Professor	01/07/2011	REGULAR	--	22			YES
17	Dr. S K Bukhari	08/03/1970	Ph.D.			Univ of Jammu	Geology & Geoscience		Assoc. Professor		REGULAR					YES
18	Er F. Zahoor	25/07/1991	Persuing Ph.D.	IIT Delhi	Integrated PhD IIT Delhi		Geotechnical Engineering		Asst. Professor (Trainee)		REGULAR					YES
19	Dr. Ashif Hussain Shah	01/09/1989	Ph.D.	NIT Sgr	NIT Sgr	IIT Roorkee	Structural Engineering	03/03/2016	AP	03/03/2016	Contractual	---	02	---	----	July 2017
20	Sheikh Muzamil	28/01/1989	M. Tech.	GCE JAMMU	NITH	---	TPT ENGG	9/03/2016	AP	9/03/2016	Contractual	---	02	ISGPS9061F	283117994399	Dec 2017
21	Ishfaq Amin	24/12/1988	M. Tech.	BGS BU	MDU	----	ENV.ENGG	9/03/2016	AP	9/03/2016	Contractual	---	02	---	436735672276	YES
22	Shoaib Bashir Wani	01/04/1989	M. Tech.	BGS BU	BSAR U CHENAI	----	STR ENGG	9/03/2016	AP	9/03/2016	Contractual	---	02	ADXP2731N	593686833909	YES

Table B.5c

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2017-18**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
23	Er. Ubaid Illahi	06/10/1991	M. Tech.	PTU	KU	----	TPT	25/03/2017	AP	25/03/2017	Contractual	---	01	ABXPI4290C	310365751009	July 2017
24	Er. Suhail Aijaz Shah	11/04/1991	M. Tech.	MDU	AFU	----	CTM	23/03/2017	AP	23/03/2017	Contractual	---	01	----	----	April 2017
25	Er. Arnab Saha	20/11/1986	M. Tech.	RSCOE	SPPU	----	ENV.ENGG	25/03/2017	AP	25/03/2017	Contractual	---	04	BLOPS6699K	655326207078	YES
26	Mohd Asif	10/12/1990	M. Tech.	IUST	NITSRI	----	TPT	25/03/2017	AP	25/03/2017	Contractual	---	02	AXNPA2189C	435921250381	July 2017
27	Bushra Mushtaq	23/11/1990	M. Tech.	MDU	MDU	----	CTM	13/04/2017	AP	13/04/2017	Contractual	---	02	----	450193840427	YES
28	Nairaya Khan	23/11/1990	M. Tech.	PTU	NITTTR	----	CTM	13/04/2017	AP	13/04/2017	Contractual	---	02	EEPPK8836R	985213666214	YES
29	Saima Showkat	28/05/1985	M. Tech.	SSM	SITSRI	----	WRE	13/04/2017	AP	13/04/2017	Contractual	---	04	FYGPS5516G	450152531482	YES
30	Mohd Tajamuil	05/03/1992	M. Tech.	LPU	LPU	----	STR EMGG	13/04/2017	AP	13/04/2017	Contractual	---	02	----	625328009210	YES

**Table B.5d**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2016-17**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHA R No	Currently Associated with the Dept? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
1	Dr. A R Dar	01/03/1959	Ph.D.	Univ of Kashmir	Univ of Roorkee	Univ. of Birmingham, UK	Structural Engineering		Professor		REGULAR			AEXP M2145 M	450640993 849	YES
2	Dr M A Lone	20/10/1957	Ph.D.	IEI Kolkta	IIT Roorkee	Univ of Kashmir	Water Resources Engineering	16/12/1989	Professor	22/06/2006	REGULAR	---	38	ABEPL 2360D	Awaited	YES
3	Dr. J A Bhat	25/4/1965	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Delhi	Structural Engineering	Sept. 1989	Professor	18/09/2013	REGULAR	--	29	AFPPB 6037G	827785574 407	YES
4	Dr A Q Dar	02/01/1996	Ph.D.	Univ of Kashmir	Univ of Kashmir	Univ of Kashmir	Water Resources Engineering	16/12/1989	Professor	18/09/2013	REGULAR	---	28	ADIPD 2209-F	Awaited	YES
5	Dr M A Ahanger	08/03/1966	Ph.D.	REC Sgr	IIT Delhi	Univ. of Kashmir	Water Resources Engineering	16/12/1989	Professor	18/09/2013	REGULAR		28	ADHP A7760P	238865084 637	YES
6	Dr. M A Tantary	07/03/1967	Ph.D.	Univ of Kashmir	IIT Delhi	Univ of Roorkee	Structural Engineering		Professor	18/09/2013	REGULAR					YES

**Table B.5e**



**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2016-17**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
7	Dr M S Mir	11/09/1967	Ph.D	Univ of Kashmir	Univ of Roorkee	IIT Bombay	Transportation Engineering		Professor	18/09/2013	REGULAR					YES
8	Er. F A Mir	21/04/1960	M Tech	Univ of Kashmir	IIT Delhi	---	Geotechnical Engineering		Assoc. Professor		REGULAR					YES
9	Dr. J A Naqash	10/06/1957	Ph.D	Univ of Kashmir	Univ of Roorkee	IIT Roorkee	Structural Engineering		Assoc. Professor		REGULAR					YES
10	Dr J M Banday	31/03/1959	Ph.D	Univ of Kashmir	IIT Delhi	IISc Bangalore	Structural Engineering		Assoc. Professor		REGULAR					YES
11	Er. Danish Ahmad	12/07/1961	M. Tech.	Univ of Kashmir	Univ of Kashmir	---	Environmental Engineering	01/05/1984	Assoc. Professor		REGULAR	---	34	ADJPA 9826E	409391466528	YES
12	Dr. M. Y Shah	11/07/1967	Ph.D	Univ of Kashmir	IIT Delhi	IIT Roorkee	Geotechnical Engineering	03/03/1994	Assoc. Professor	01/11/2008	REGULAR	--	26 + years	AOIPS3 141J	716216447628	YES
13	Dr. B A Mir	12/12/1965	Ph.D	Univ of Kashmir	IISc Bangalore	IIT Bombay	Geotechnical Engineering	04/01/1996	Assoc. Professor	01/07/2011 (actual due date: 04/01/2010)	REGULAR	1.5	25	AEXP M7145 M	570940993869	YES

**Table B.5f**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2016-17**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Dept? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
14	Er A A Masoodi	01/05/1965	M. Tech.	Univ of Kashmir	IIT Delhi	---	Structural Engineering	26.10.1996	Assoc. Professor	01/07/2011	REGULAR		3.5			YES
15	Er R R Mir	26/03/1970	M. Tech	Univ of Kashmir	Univ of Kashmir	---	Environmental Engineering	26.10.1996	Assoc. Professor	01/07/2011	REGULAR		-			YES
16	Dr. S K Bukhari	08/03/1970	Ph.D.			Univ of Jammu	Geology & Geoscience		Assoc. Professor	01.07.2012	REGULAR					YES
17	Er F. Zahoor	25/07/1991	Persuing Ph.D.	IIT Delhi	Integrated PhD IIT Delhi		Geotechnical Engineering	01.01.2016	Asst. Professor (Trainee)	01.01.2016	REGULAR					YES
18	Dr. Asif Hussain Shah	01/09/1989	Ph.D	NIT Sgr	NIT Sgr	IIT Roorkee	Structural Engineering	03/03/2016	Asst. Professor	03/03/2016	Contractual	---	02	-	-	July 2017
19	Ashiq Hussain Ganaie	03/03/1991	M.Tech	NIT Sgr	IIT Roorkee	---	GTE	07-08-2015	Asst. Professor	9/08/2015	Contractual	---	01	BRMPG 7506H	450446201336	June 2016
20	Fahim Sadiq Bhat	24/08/1990	M.Tech	BIT	DSC	---	High. ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	---	01	1DWPS 9680B	72955256442	April 2017
21	Sheikh Muzamil Hussain	28/01/1989	M.Tech	GDE C	NIT hamirpur	---	TPT ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	--	02	ISGPS9 061F	283117994399	

Table B.5g

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2016-17**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
22	Ishfaq Rashid Sheikh	11-03-1993	M.Tech	LPU	LPU	---	TPT ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	02	FZWPS6820Q	465142202386	April 2017	
23	Ishfaq Mohi ud Din	25-05-1993	M.Tech	LPU	LPU	---	TPT ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	02	DCJPM7281K	725015611625	April 2017	
24	Asif Akbar	1-10-1988	M.Tech	MDU	MDU	---	CTM	9/03/2016	Asst. Professor	9/03/2016	Contractual	01	BILPA7776D	-	April 2017	
25	Peerzada Mudassir Hussain	23-05-1989	M. Tech	PTU	Galgotia nodia	---	STR ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	01	ECYPD8109P	362277869102	April 2017	
26	Jasir Mushtaq	15-12-1990	M. Tech	MDU	NIILM	----	ENV ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	-	AYTPM3812F	223984311300	April 2016	
27	Ishfaq Amin	24-12-1988	M.Tech	BGSU	MDU	---	ENV ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	02	-	436735672276	YES	
28	Shoaib Bashir Wani	01-04-1989	M. Tech	BGSBU	BSARU	---	STR ENG	9/03/2016	Asst. Professor	9/03/2016	Contractual	02	ADXPW2731N	593686833909	YES	
29	Aliya Naseer	23-06-1991	M. Tech	JSSATE	Amity noida	----	STR ENG	15/12/2016	Asst. Professor	15/12/2016	Contractual	-	-	211959817883	April 2017	
30	Syed Mohsin Shabir	12-01-1992	M. Tech	BGSBU	Sharda	---	ENV ENG	16/12/2016	Asst. Professor	16/12/2016	Contractual	01	GSQPS6097P	875910010383	April 2017	
31	Aamir Hassan	05-11-1989	M. Tech	SSM	SRM	---	STR ENG	17/12/2016	Asst. Professor	17/12/2016	Contractual	01	ATUPN2283R	299970773652	April 2017	

Table B.5h

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2015-16**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC. PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
1	Dr. A R Dar	01/03/1959	Ph.D.	Univ of Kashmir	Univ of Roorkee	Univ. of Birmingham, UK	Structural Engineering		Professor		REGULAR			AEXP M2145 M	450640993 849	YES
2	Dr M A Lone	20/10/1957	Ph.D.	IEI Kolkata	IIT Roorkee	Univ of Kashmir	Water Resources Engineering	16/12/1989	Professor	22/06/2006	REGULAR	---	38	ABEP L2360 D	Awaited	YES
3	Dr S R Shah		Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	Water Resources Engineering		Professor	18/09/2013	REGULAR					YES
4	Dr. J A Bhat	25-4-1965	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Delhi	Structural Engineering	Sept. 1989	Professor	18/09/2013	REGULAR	--	29	AFFP B6037 G	827785574 407	YES
5	Dr A Q Dar	02/01/1996	Ph.D.	Univ of Kashmir	Univ of Kashmir	Univ of Kashmir	Water Resources Engineering	16/12/1989	Professor	18/09/2013	REGULAR	---	28	ADIP D2209 -F	Awaited	YES
6	Dr M A Ahanger	08/03/1966	Ph.D.	REC Sgr	IIT Delhi	Univ. of Kashmir	Water Resources Engineering	16/12/1989	Professor	18/09/2013	REGULAR		28	ADHP A7760 P	238865084 637	YES
7	Dr. M A Tantary	07/03/1967	Ph.D.	Univ of Kashmir	IIT Delhi	Univ of Roorkee	Structural Engineering	01/03/1994	Professor	18/09/2013	REGULAR					YES

**Table B.5i**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2015-16**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Dept? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
8	Dr M S Mir	11/09/1967	Ph.D.	Univ of Kash mir	Univ of Roorkee	IIT Bombay	Transportation Engineering		Professor	18/09/2013	REGULAR					YES
9	Er. F A Mir	21/04/1960	M Tech	Univ of Kash mir	IIT Delhi	----	Geotechnical Engineering		Assoc. Professor		REGULAR					YES
10	Dr. J A Naqash	10/06/1957	Ph.D.	Univ of Kash mir	Univ of Roorkee	IIT Roorkee	Structural Engineering		Assoc. Professor		REGULAR					YES
11	Dr J M Banday	31/03/1959	Ph.D.	Univ of Kash mir	IIT Delhi	IISc Bangalore	Structural Engineering		Assoc. Professor		REGULAR					YES
12	Er. Danish Ahmad	12/07/1961	M. Tech.	Univ of Kash mir	Univ of Kashmir	---	Environmental Engineering	01/05/1984	Assoc. Professor		REGULAR	---	34	ADJPA 9826E	4093914665 28	YES
13	Dr. M. Y Shah	11/07/1967	Ph.D.	Univ of Kash mir	IIT Delhi	IIT Roorkee	Geotechnical Engineering	03/03/1994	Assoc. Professor	01/11/2008	REGULAR	--	26 + years	AOIPS3 141J	7162164476 28	YES
14	Dr. B A Mir	12/12/1965	Ph.D.	Univ of Kash mir	IISc Bangalore	IIT Bombay	Geotechnical Engineering	04/01/1996	Assoc. Professor	01/07/2011 (actual due date: 04/01/2010)	REGULAR	1.5	25	AEXP M7145 M	5709409938 69	YES

**Table B.5j**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2015-16**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
15	Er A A Masoodi	01/05/1965	M. Tech.	Univ of Kashmir	IIT Delhi	----	Structural Engineering		Assoc. Professor	REGULAR	3.5	22			YES	
16	Er R R Mir	26/03/1970	M. Tech.	Univ of Kashmir	Univ of Kashmir	----	Environmental Engineering		Assoc. Professor	REGULAR	--	22			YES	
17	Dr. S K Bukhari	08/03/1970	Ph.D.			Univ of Jammu	Geology & Geoscience		Assoc. Professor	REGULAR					YES	
18	Javid Ahmad Bhat		M. Tech.	NIT Sgr	NIT Sgr	IIT Roorkee	Structural Engineering									
19	Mohd Hanief Dar		M. Tech.													
20	Shahid Bashir Bhat		M. Tech.													
21	Kashif Hassan		M. Tech.													

**Table B.5k**

Criteria 5

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING  
CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2015-16**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
22	Mohd Idrees Gilani		M. Tech.													
23	Suhaioi Hassan		M. Tech.													
24	Yasir Ahmad Sofi		M. Tech.													
25	Saqib Fayaz		M. Tech.													
26	Mohd Adil Dar		M. Tech.													
27	Ishfaq Mohi ud Din		M. Tech.													
28	Zahid Bashir		M. Tech.													
29	Umer Bashir Dar		M. Tech.													
30	Dar Sarvat Gul		M. Tech.													
31	Muzamil Mushtaq		M. Tech.													

*Table B.51*

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR  
DEPARTMENT OF CIVIL ENGINEERING**

**CONSOLIDATED FACULTY PROFILE FOR THE YEAR 2015-16**

Sl. No.	NAME OF THE FACULTY MEMBER	DOB	QUALIFICATION (Institute)				AREA OF SPECIALIZATION	DATE OF JOINING	DESIGNATION		NATURE OF ASSOCIATION	EXPERIENCE		PAN No	AADHAR No	Currently Associated with the Deptt? (If not, date of leaving)
			HIGHEST DEGREE	UG	PG	Ph.D.			CURRENT DESIGNATION	DATE ON WHICH DESIGNATED AS PROFESSOR/ASSOC PROFESSOR/ASST. PROFESSOR		INDUSTRY (Years)	ACADEMICS (Years)			
32	Firdous Ahmad Shah		M. Tech.													
33	Umer Mukhtar		M. Tech.													
34	Latif Ahmad Dar		M. Tech.													
35	Ashiq Hussain Ganaie		M. Tech.													
36	Mehnaz Akhter		M. Tech.													
37	Peerzada Mudassir Hussain		M. Tech.													
38	Mehnaz Akhter		M. Tech.													

*Table B.5m*



Criteria 5

**5.1. Student-Faculty Ratio (SFR) (16)**

No. of UG Programs in the Department: n = B. Tech Civil Engg

No. of PG programs in the department (m) = 4

No. of Students in UG 2<sup>nd</sup> Year = **u1**; No. of Students in UG 3<sup>rd</sup> Year= **u2**

No. of Students in UG 4<sup>th</sup> Year= **u3**

No. of students in PG 1<sup>st</sup> year = **p1**; No. of students in PG 2<sup>nd</sup> year= **p2**

No. of students = Sanctioned intake + Actual admitted lateral entry students

UG = u1+u2+u3; PG = p1+p2;

Total No. of students, S = UG + PG; Student Faculty Ratio, SFR = S / F

The Student-Faculty Ratio (SFR) for the current academic year 2017-18 and the preceding years (2016-17, 2015-16) is given in the following tabular form:

**Student-Faculty Ratio**

Year	CAY: 2017-18 (1)	CAYm1: 2016-17 (2)	CAYm2: 2015-16 (3)
u <sub>1</sub> (Sanctioned intake)	123	123	123
u <sub>2</sub>	123	123	123
u <sub>3</sub>	123	123	123
<b>No of students in each year: UG = (u<sub>1</sub>+u<sub>2</sub>+u<sub>3</sub>)</b>	<b>369</b>	<b>369</b>	<b>369</b>
p1.1 (Str. Engg) (Sanctioned intake)	25	25	25
P1.2 (Water Res. Engg)	15	15	15
P1.3 (Geo. Tech Engg)	17	17	17
P1.4 (Transp. Engg)	18	18	18
No of students in 1 <sup>ST</sup> year: <b>PG1 = (P<sub>1.1</sub>+P<sub>1.2</sub>+ P<sub>1.3</sub>+P<sub>1.4</sub>)</b>	<b>125</b>	<b>125</b>	<b>125</b>
P2.1 (Str. Engg) (Sanctioned intake)	25	25	25
P2.2 (Water Res. Engg)	15	15	15
P2.3 (Geo. Tech Engg)	17	17	17
P2.4 (Transp. Engg)	18	18	18
No of students in 2 <sup>ND</sup> year: <b>PG2 = (P<sub>2.1</sub>+P<sub>2.2</sub>+ P<sub>2.3</sub>+P<sub>2.4</sub>)</b>	<b>125</b>	<b>125</b>	<b>125</b>
<b>No of students in each year: PG = (PG1+PG2)</b>	<b>150</b>	<b>150</b>	<b>150</b>
<b>Total No of Students in each year: S = UG+PG</b>	<b>519</b>	<b>519</b>	<b>519</b>
Total No of Faculty <sup>#</sup> in the Department = F	<b>26</b>	<b>27</b>	<b>34</b>
<b>Student Faculty Ratio (SFR) = S/F</b>	19.96	19.22	15.26
<b>Average SFR=(SFR1+SFR2+SFR3)/3</b>	<b>18.15</b>		
	<b>Assessment / Marks Claimed*</b>		<b>16</b>
<b>#: (excluding first year faculty)</b>			

**Table B.5.1a**

\*: Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:

< = 15 - 20 Marks	< = 19 - 16 Marks	< = 23 - 12 Marks	> 25.0 - 0 Marks
< = 17 - 18 Marks	< = 21 - 14 Marks	< = 25 - 10 Marks	

**Table B.5.1b**

### Criteria 5

The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for **2 consecutive semesters** in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Student Faculty Ratio.

#### 5.1.1. Information about the regular and contractual faculty as per the format mentioned below:

##### Information about the regular and contractual faculty

Year	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY 2017-18	18	12
CAYm1 (2016-17)	17	14
CAYm2 (2015-16)	17	21

*Table B.5.1.1a*

#### 5.2. Faculty Cadre Proportion (20)

RF: No. of faculty required to comply with 15:1 Student-Faculty Ratio based on number of students as per 5.1:

Year	No. of Students (S)	No. of Faculty Retained
CAY 2017-18 (UG+PG)	519	30
CAYm1 (2016-17) (UG+PG)	519	31
CAYm2 (2015-16) (UG+PG)	519	38

*Table B.5.2a*

The reference Faculty Cadre Proportion is RF1:RF2:RF3 = 1:2:6

RF1: No. of Professors required (= RF x 1/9) to comply with 15:1 Student- Faculty ratio based on no. of students (N) as per 5.1

RF2: No. of Associate Professors required (=RF x 2/9) to comply with 15:1 Student- Faculty ratio based on no. of students (N) as per 5.1

RF3: No. of Assistant Professors required (=RF x 6/9) to comply with 15:1 Student- Faculty ratio based on no. of students (N) as per 5.1

The Cadre Ratio Marks can be computed by the following expression:

$$\text{Carde Ratio Marks} = \left[ \frac{AF1}{RF1} + \frac{0.6*AF2}{RF2} + \frac{0.4*AF3}{RF3} \right] * 10$$

Maximum marks to be limited if it exceeds 20. However, if AF1 = AF2 = 0, then zero marks are to be awarded.

The reference Faculty cadre proportion in proportion of 1(F1) : 2(F2) : 6(F3) (excluding first year faculty) is given in tabular form below:

Year	Professors	Associate Professors	Assistant Professors
------	------------	----------------------	----------------------

Criteria 5

2017-18	Required <i>RF1</i>	Available <i>AF1</i>	Required: <i>F2</i>	Available <i>AF2</i>	Required <i>RF3</i>	Available <i>AF3</i>
CAY (2016-17)	3	8	7	9	20	9
CAYm1 (2015-16)	3	8	7	9	20	11
CAYm2 (2014-15)	3	8	7	9	20	15
Average Number	<i>RF1</i>	<i>AF1</i>	<i>RF2</i>	<i>AF2</i>	<i>RF3</i>	<i>AF3</i>
	3	8	7	9	20	12
$\text{Carde Ratio Marks} = \left[ \frac{AF1}{RF1} + \frac{0.6*AF2}{RF2} + \frac{0.4*AF3}{RF3} \right] * 10 = 36.8$						
<b>Assessment / Marks Claimed</b>						<b>20</b>

Table B.5.2b

5.3. Faculty Qualification (14)

Faculty Qualification can be determined by using the following expression:

$$FQ = 2 * \left[ \frac{(10X + 4Y)}{F} \right]$$

Where: X = No. of regular faculty with Ph.D.

Y = No. of regular faculty with M. Tech.

F = No. of regular faculty required to comply 20:1 Faculty Student ratio

(no. of faculty and no. of students required are to be calculated as per 5.1)

Faculty Qualification for the last Four Years is given in Tabular form as below:

Faculty Qualification

YEAR	X	Y	F	$FQ = 2 * \left[ \frac{(10X + 4Y)}{F} \right]$	Marks Claimed
2017-18	13	13	26	14	Max <sup>m</sup> . Marks to be awarded for Faculty Qualification = 20
CAY (2016-17)	14	13	27	13	
CAYm1 (2015-16)	13	21	34	14	
<b>Average Assessment Years</b>				14	
<b>Assessment / Points Claimed</b>					<b>14</b>

Table B.5.3

5.4. Faculty Retention (10)

The grading for Faculty retention is explored as below:

Sl. No.	Item	Marks
1	> = 90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	10
2	>=75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	8
3	>=60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	6
4	>=50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	4
5	<50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	0
<b>Maximum Points to be Claimed= 10</b>		

Criteria 5

**Table B.5.4a**

No. of faculty members retained in CAY (2017-18) = 26 (excluding first year faculty)

No. of faculty members retained in CAYm1 (2016-17) = 28

No. of faculty members retained in CAYm2 (2015-16) = 32

No. of faculty members retained in CAYm3 (2014-15) = 32

No. of faculty members retained during assessment period are summarized in Table B. 5.4 as below:

**Faculty Retention**

Sl. No.	Description	2017-18	CAY1 (2016-17)	CAYm2 (2015-16)	CAYm3 (2014-15)
1	No. of Faculty retained	30	31	38	37
2	Total number of Faculty in CAYm2	37	37	37	37
3	% Faculty retained	30	83.78	100	100
<b>Average</b>			95		
<b>Assessment / Points Claimed = 10</b>					

**Table B.5.4b**

**5.5 Faculty competencies in correlation to Program Specific Criteria (10)**

The details for each faculty member (specialization, research publications, etc.,) are given in Tabular form below (2015-2017):

Name of Faculty Member	Qualification	Specialization	Research areas	Research publications
Dr. A R Dar	Ph.D. (UK) M. Tech. (Univ. of Roorkee) B. E. REC Sgr	Structural Engg	1. Earthquake Resistant Design 2. Design of Steel and pre-stressed Bridges 3. Earthquake Resistance	---
Dr M A Lone	Ph.D. (Univ. of Kashmir) M. E. IIT Roorkee B.E. IEI Kolkata	Water Resources Engg	1. Hydraulic Structures. 2. Surface Water Hydrology. 3. Water Resources Engineering.	09
Dr S R Shah (HOD)	Ph.D. (Univ. of Roorkee) M. Tech. (Univ. of Roorkee) B. E. REC Sgr	Water Resources Engg	1. Water Resources & Environmental Engg 2. Hydraulic structures, 3. Irritation Engg., water soil plant and atmospheric relationship, and Hydropower.	01
Dr. J A Bhat	Ph.D. (IIT Delhi) M. Tech. (IIT Delhi) B. E. REC Sgr	Structural Engg	1. Earthquake Engineering 2. Multistory Buildings 3. Civil Engineering Materials	06
Dr A Q Dar	Ph.D. (Univ. of	Water	1. Hydraulic Structures	16

Criteria 5

	Kashmir) M. E. (Univ. of Kashmir) B. E. REC Sgr	Resources Engg	2.Hydraulics	
Dr M A Ahanger	Ph.D. (Univ. of Kashmir) M. Tech. (IIT Delhi) B. E. REC Sgr	Water Resources Engg	1.Hydrology Modelling 2.Sediment Transport	13
Dr. M A Tantary	Ph.D. (Univ. of Roorkee) M. Tech. (IIT Delhi) B. E. REC Sgr	Structural Engg	1. Fibre Reinforced Concrete	03
Dr M S Mir	Ph.D. Ph.D. (IIT Bombay) M. Tech. Ph.D. (Univ. of Roorkee) B. E. REC Sgr	Transportation Engg	1.Travel Demand Modelling 2.Land Use Transport Planning 3.Transport Safety 4.Behavioural	10
Er. F A Mir	M. Tech. Ph.D. (IIT Delhi) B. E. REC Sgr	Geotechnical Engg	1.Soil Characterization 2.Pavement Materials 3FOUNDATIONS 4.Rock Mechanics	05
Dr J M Bandy	Ph.D. (IISc) M. Tech. Ph.D. (IIT Delhi) B. E. REC Sgr	Structural Engg	1.Matrix Analysis of Framed Structures 2.FEM and its application to different Type of Structures 3.Fracture Mechanics of Concrete Structures	---

*Table B.5.5a*

Name of Faculty Member	Qualification	Specialization	Research areas	Research publications
Dr. J A Naqash	Ph.D. (Univ. of Roorkee) M. Tech. (Univ. of Roorkee) B. E. REC Sgr	Structural Engg	1.Seismic Micro-zonation 2.Concrete Structures	03
Er. Danish Ahmad	M. E. (Univ. of Kashmir) B. E. REC Sgr	Environmental Engg	1. Environmental Engg 2. Water Quality 3. Treatment Plants 4. Solid Wastes 5. Solar Water Purifiers	04
Dr. M. Y Shah	Ph.D. (IIT Rookree) M. Tech. (IIT Delhi) B. E. REC Sgr	Geotechnical Engg	1.Foundation Engineering 2.Soil Reinforcement 3.Ground Improvement	02

Criteria 5

			4.Slope Stability	
Dr. B A Mir	Ph.D. (IIT Bombay) M. E. (IISc) B. E. REC Sgr	Geotechnical Engg	1. Prediction of Soil Behaviour, 2. Foundation Engineering, 3. Critical State Soil Mechanics, 4. Expansive Soil Engg., 5. Ground Improvement, 6. Reinforced Soil Structures, 7. Environmental Geotechnics, 8. Fly Ash Characterization 9. Pavement Material Characterization	38
Er A A Masoodi	M. Tech. (IIT Delhi) B. E. REC Sgr	Structural Engg	1. Concrete Types and Their Characteristics	03
Er R R Mir	M. E. (Univ. of kashmir) B. E. REC Sgr	Environmental Engg	1.Environmental Engineering 2. Water Body Studies	---
Dr. S K Bukhari	Ph.D. (Univ. of Jammu)	Geology & Geoscience	1. Environment and Geoinformatics 2. Rock Mechanics 3. Underground Structures 4.Engineering Seismology	17
Er. F. Zahoor	Ph.D. (IIT Delhi: pursuing) B. Tech. NIT Sgr	Geotechnical Engg.	1. Seismic Microzonation 2. Rock mechanics 3. Ground Improvement	---
<b>Assessment / Marks claimed</b>				<b>10</b>

**Table B.5.5b**

Note: Since contractual faculty leaves Institute after one year, therefore, these are not included in the above table.

**5.6. Innovations by the Faculty in Teaching and Learning (10)**

**Description**

**Instructional materials**

Each classroom is equipped with overhead projectors and some are equipped with the state-of-the-art smart boards (Hi-Tech Rooms). Textbooks, reference books, and study notes prepared by teachers

### Criteria 5

are used for instruction. Lectures are delivered using PPTs. Other instruction tools are whiteboard, charts and diagrams and laboratory demonstration models.

### Working models/charts/monograms:

Contributions to teaching and learning are activities that contribute to the improvement of student learning are listed below:

Sl. No	Description of Activities	Contributions
1	<b>Innovation in Teaching-Learning</b>	
	a. Interactive3D Virtual Models (Sketch Up)	Models used for demonstration of Water filters, Imhoff tanks , hydraulic models of Dams, sluice gates
	b. Flow charts for structural design procedures	YES
	c. Enriching teaching learning through power point presentations	YES
	d. Comprehending professional core courses by applying breadth courses	PDA courses being taught for each semester
	f. NPTEL course and Spoken Tutorials	YES: uploaded on Inst. Website
2	Industry-Institute Interaction Cell Activities	YES: T&P Deptt in place
3	Innovation & Entrepreneurship Development Cell Activities	YES: IIED Cell in place
4	<b>Civil Engineering Association Activities:</b>	
	a. Project – “Swapnaveedu”	SAP (Swachta Action Plan) as co-coordinator
	b. “Rooparekha”	Setting up of Hydrobiology Lab
	c. “Mindspark”	Setting up of CAD Lab. and Geotech Computational lab for Civil Engineering Department as well as Central facility for other Departments
5	Solid waste Incinerator	Solid waste being characterized for reuse as an engineered material in various Civil Engg. activities
<b>Assessment / Points Claimed = 10</b>		

Table B.5.6

### 5.7. Faculty as participants in Faculty development/training activities/STTPs(03/15)

A Faculty scores maximum five points for participation as below:

- Participation in 2 to 5 days Faculty development program: 3 Points
- Participation > 5 days Faculty development program: 5 Points

Sl. No.	Name of Faculty Member	Maximum 5 Points per Faculty			
		2017-18 (Odd)	2016-17 CAY	2015-16 CAYm1	2014-15 CAYm2
1	Dr. A R Dar	--	---	---	---
2	Dr M A Lone	03	---	03	03
3	Dr S R Shah (HOD)	---	---	---	---
4	Dr. J A Bhat	---	---	---	---
5	Dr A Q Dar	03	---	---	03
6	Dr M A Ahanger	---	---	05	05
7	Dr. M A Tantary	---	---	05	---
8	Dr M S Mir	---	05	05	---
9	Er. F A Mir	---	---	---	---
10	Dr. J A Naqash	---	---	---	---
11	Dr J M Bandy	---	---	---	---
12	Er. Danish Ahmad	---	---	---	---

Criteria 5

13	Dr. M. Y Shah	---	---	---	---
14	Dr. B A Mir	03	03	03	03
15	Er A A Masoodi	03	---	---	---
16	Er R R Mir	---	---	---	---
17	Dr. S K Bukhari	---	---	---	05
18	Er F. Zahoor	---	---	---	---
SUM			08	21	19
<b>RF= Number of Faculty required to comply with 15:1</b>		RF	28	32	32
<b>Assessment = 3*(Sum/0.5RF)</b>			1.7	3.9	3.6
<b>Average</b>			2.77		
<b>Average assessment over Three years limited to 15 Points/Marks</b>					
<b>Maximum Points Claimed</b>					<b>03</b>

Table B.5.7

5.8. Research and Development (75)

5.8.1. Academic Research(20)

Academic Research includes Research Paper Publications, Ph.D. guidance, and Faculty receiving Ph.D. during the Assessment Period. The distribution of points/marks is given as below:

Sl. No.	Description of activity	Max <sup>m</sup> . Points/Marks
1	Number of quality publications in refereed/SCI journals, Citations, Books/Books Chapters etc.	15
2	Ph.D. guided/Ph.D. awarded during the assessment period while working in the Institute	05
<b>Marks/Points Claimed</b>		<b>20</b>

Table B.5.8.1a

Number of publications in refereed/SCI journals, Citations, Books/Books Chapters etc. by the faculty members is given in Tabular form below:

**Research Publications by each Faculty Member**

Sl. No.	Name of Faculty Member	No. of Publications: Maximum Marks = 15											
		CAY - 2017-18			CAYm1-2016-17			CAYm2-2015-16			CAYm3-2014-15		
		Journals	Conf	Citations	Journals	Conf	Citations	Journals	Conf	Citations	Journals	Conf	Citations
1	Dr. A R Dar	--	---	---	---	---	--	---	---	---	---	--	---
2	Dr M A Lone	09	---	---	---	---	--	---	---	---	---	--	---
3	Dr S R Shah												
4	Dr. J A Bhat	03	---	---	---	---	----	02	----	----	03	----	----
5	Dr A Q Dar	02	01	---	---	02	--	04	---	---	03	04	---



Criteria 5

6	Dr M A Ahanger	06	01	--	02	01	---	02	---	---	---	---	---
7	Dr. M A Tantary	--	---	---	---	---	--	---	01	---	---	02	---
8	Dr M S Mir	03	03	---	01	01	--	01	01	---	---	--	---
9	Er. F A Mir	01	02	---	---	01	---	---	01	---	---	---	---
10	Dr J M Banday	---	---	---	---	---	--	---	---	---	---	--	---
11	Dr. J A Naqash	03	---	---	---	---	--	---	---	---	---	--	---
12	Er. Danish Ahmad	03	01	---	---	---	--	---	---	---	---	--	---
13	Dr. M. Y Shah	---	01	---	01	---	---	---	---	---	---	---	---
14	Dr. B A Mir	06	06	50	04	05	36	02	05	14	05	05	16
15	Er A A Masoodi	03	--	--	---	--	--	---	---	--	--	--	--
16	Er R R Mir	--	---	---	---	---	--	---	---	---	---	--	---
17	Dr. S K Bukhari	02	08		03	04							
18	Er F. Zahoor	--	---	---	---	---	--	---	---	---	---	--	---
<b>SUM</b>		41	23	75	11	14	36	11	08	14	11	11	16
<b>Journal Publications</b>		<b>74</b>											
<b>Conference Publications</b>		<b>56</b>											
<b>Citations</b>		<b>141</b>											
<b>Assessment / Points Claimed</b>											<b>15</b>		

*Table B.5.8.1b*

The details for Ph.D. guided/Ph.D. awarded during the assessment period are given as below:

**a. For award of Ph.D. during assessment period, following details are given:**

Sl. No.	Name of Ph.D. Awardees	Academic Year	Research Topic/Ph.D. Thesis Title
01	Dr. Yasir Altaf	2017-18	Integrated Climate and Hydrological Modeling of a High Altitude Western Himalayan Catchment
02	Mir Bintul Huda		Effect of Obstacle type and Bed Material Gradation on Local Scour Phenomenon
03	Nasir Ahmad Rather		Protective Filter Design Criteria based on particle shape and base gradation parameters

*Table B.5.8.1c*

**b. For Ph.D. ongoing during the assessment period, the following details are to be given:**

Sl. No.	Name of Ph.D. Awardees	Academic Year	Name of University/Institute awarding Ph.D.
01	Vaseem Ahmad Shahnaz	2014	NIT Srinagar
02	Aamir Majid Bhat	2016	NIT Srinagar
03	Saika Manzoor	2017	NIT Srinagar
04	Sakiba Nabi	2016	NIT Srinagar
05	Taroob Bashir	2017	NIT Srinagar

*Table B.5.8.1d*

Criteria 5

c. For Ph.D. ongoing during the assessment period, the following details are to be given:

Sl. No.	Name of Ph.D. Awardees	Academic Year	Name of University/Institute awarding Ph.D.
01	Owais Nabi Bhat	2014	NIT Srinagar
02	Umer Salam	2016	NIT Srinagar
03	Syed Mohsin Shabir	2017	NIT Srinagar
04	Shiekh Umar	2016	NIT Srinagar
05	Mehlat Shah	2017	NIT Srinagar
<b>Assessment / Maximum Points Claimed</b>			<b>05</b>

*Table B.5.8.1e*

**5.8.2. Sponsored Research (20)**

The grading for Cumulative sponsored research during assessment years is given as below:

Amount > 50 Lakh – 20 Marks,; Amount > 40 and < 50 Lakh – 15 Marks; Amount > 30 and < 40 Lakh – 10 Marks,

Amount > 15 and < 30 Lakh – 5 Marks,; Amount < 15 Lakh – 0 Marks

The details for Sponsored Research Project Works may be given in Tabular form as below:

Sl. No.	Project Title	Funding Agency	Amount (Lacs)	Duration
1	Assessment of effect of climate change on water resources and adoption of strategies in respect of planning design & management of water resources system	Ministry of Water Resources/Environmental Engg, GOI	01 Crore	Since 2008: ongoing
<b>Assessment/ Marks claimed</b>				<b>20</b>

*Table B.5.8.2*

**5.8.3. Development activities (15)**

Sl. No.	Development activities	Contribution
1	Product Development	Low Cost Solar Water Purifier
2	Research laboratories	Water Resources management centre, Environmental and sustainability Studies Centre, Geotech. Computational Lab., CADD Lab
3	Instructional materials	For Environmental Engg. Lab., CAD Lab., Survey Lab and Geotech Lab
4	Working models/charts/monograms/Manuals etc.	<b>Yes</b>
<b>Points Claimed</b>		<b>15</b>

*Table B.5.8.3*

**5.8.4. Consultancy (from Industry) (20)**

*Criteria 5*

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding amount (Cumulative during assessment years):

<b>Assessment Criterion</b>			
Amount > 10 Lacs	20 Marks	Amount >= 4 Lacs and < 6 lacs	5 Marks
Amount >= 8 Lacs and <= 10 lacs	15 Marks	Amount >= 2 Lacs and < 4lacs	2 Mark
Amount >= 6 Lacs and < 8 lacs	10 Marks	Amount < 2 Lacs	0 Mark
Consultancy services offered to the industry vide material testing and certification of various construction materials. <b>Funding amount 2 Lacs (Cumulative during the assessment years)</b>			

*Table B.5.8.4a*

**Consultancy details are:**

<b>AY</b>	<b>Project Title</b>	<b>Duration</b>	<b>Funding agency</b>	<b>Amount (Rs)</b>
(2017-18)	Hydrological Analysis and Design of Weir at Manchar Nallah Lolab Kupwara	(Over a period of 6 Months)	Irrigation & Flood Control Kashmir	11 Lacs
(2017-18)	Technical evaluation of Solid Waste Management Projects for various Districts of Kashmir Valley	(Over a period of 12 Months)	Urban Local Bodies Kashmir	20 Lacs
(2015-16)	Technical Evaluation of DPR for relocation of House Boats in Dal Lake	(Over a period of 12 Months)	J & K Lakes and Waterways Development Authority	7.1 Lacs
	Soil investigation for upgradation of roads under PMGSY, Pulwama		M/S Ex. Engineer PMGSY Div. Pulwama Kashmir	5 Lacs
(2014-15)	Soil investigation and stability analysis for LP Bund of River Jhelum at U/S Hajin Bridge near Pandabonie, Sumbal Bandipora	(Over a period of 12 Months)	M/S Ex. Engineer Irrigation & Flood Control Div. Sumbal Sonawari Kashmir	5 Lacs
	Sub-Soil Investigation Of G+ Seven Hospita Building At Skims Medical College Bemina, Srinagar		Civil works Division SKIMS Medical College Hospital, Bemina, Srinagar	9.6 Laces
<b>Total Amount over the THREE Assessment Years (2014-15 to -2016-17)</b>				<b>57.7Lacs</b>
<b>Max<sup>m</sup>. Marks/Points Claimed</b>				<b>20</b>

*Table B.5.8.4b*

**5.9. Faculty Performance Appraisal and Development System (FPADS) (10)**

Faculty members of Higher Educational Institutions today have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, Faculty members need to **innovate and conduct research** for their self-renewal, keep abreast with changes in technology, and develop expertise for effective implementation of curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real life problems in industry. Another role relates to the shouldering of administrative responsibilities and co-operation with other Faculty, Heads-of- Departments and the Head of Institute. An effective performance appraisal system for Faculty is vital for optimizing the contribution of individual Faculty to institutional performance.

The assessment is based on:

**A well-defined system for faculty appraisal for all the assessment years (5)**

The institute has in place a continuous, incisive, well-organized, and effective faculty performance appraisal system for the faculty members. For this purpose an “Annual Assessment Report for the Department of Civil Engineering N. I. T. Srinagar, J&K

### Criteria 5

Faculty and the Staff” is prepared for every member. This report gives a detailed description of the members’ contribution to teaching-learning process, contribution in laboratory development, course development and development of teaching aids, laboratory manuals, and special lectures. In addition, participation in of organizing seminars, symposia, conferences, continuing education programs, research and development activities, sponsored research projects, contribution to department and institute administration, etc., are also taken into account.

The annual assessment report is given due consideration in the process of promotion and up-gradation of faculty members and hence plays a vital role in the development of the academic, research and administrative system of the institute.

### Its implementation and effectiveness (5)

#### 1. Contribution by the Department:

##### a. Innovation: Innovative project on Low Cost Solar Water Purifier for NIT Campus

- **Implementation and Effectiveness:** Fabricated in house. Provides Distilled water for the Labs of NIT)

##### b. Services to community: Selected representative for Urban Local Bodies, Kashmir

- **Implementation and effectiveness:** Discussions and knowledge sharing for implementing solid waste management rules-2016 with Director ULB Kashmir. It will help solve the crises of Solid Waste

##### c. Services to community: Selected representative for Srinagar Municipal Co operation

- **Implementation and effectiveness:** Implementation of converting Solid Waste to RDF for Cement Plants, which can generate energy from waste

##### d. Keeping abreast with changes in technology:

- Completed 3 international on line MOO courses on Sustainable development from Delft, Netherland
- Climate change- from British Columbia University
- Smart Cities from Ecole Polytechnique

#### 2. Administrative responsibilities by the Faculty:

Administrative responsibilities rendered by the faculty members are:

Sl. No.	Name of the Faculty Member(s)	Responsibility	From	To	Durations (yrs)
01	Dr. B. A. Mir	O/C Estates P&D Wing	Aug. 2011	August 2015	04 Years
		Assoc, Dean P&D Wing	Aug. 2015	To date	02 Yrs, 10 months
		Executive Engineer-Civil P&D Wing	Sept. 2015	To date	02 Yrs, 9 months
		Chairman DPC, P&D Wing	Sept. 2015	To date	02 Yrs, 10 months
02	Dr. J. A. Bhat	Assoc., Dean P&D Wing	July 2012	July 2015	03 Yrs
		Dean P&D Wing	July 2015	To date	03 yrs
		Chairman DPC, P&D Wing	July 2012	July 2015	03 Yrs
03	Er. F. A. Mir	Registrar, NIT Srinagar	July 2012	July 2017	05 Yrs
		O/C CPU	Jan. 2018	To date	
04	Dr. M. S. Mir	Chairman Library	July 2016	To date	+02 yrs
05	Dr. A. R. Dar	Director (I/C) NIT	Oct. 2016	July 2017	09 Months

*Criteria 5*

06	Dr. S. K Bukhari	Director Physical Education (I/C)	July 2012	July 2017	05 Yrs
		Assoc. Dean (Sports)	July 2017	To date	02 Yrs
<b>Assessment/marks claimed</b>					<b>10</b>

*Table B.5.9***5.10. Visiting/Adjunct/Emeritus Faculty etc. (04)**

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

Sl. No.	Description of activities	Maximum Points to be awarded
1	Provision of inviting/having visiting/adjunct/emergitus faculty	01
2	Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc. (Minimum 50 hours interaction in a year will result in 3 marks for that year; 3 marks x 3)	09

*Table B.5.10a*

Details for Visiting/Adjunct/Emeritus Faculty are given in Tabular form below:

Acad. Year	Name of the Guest faculty	Contributions in teaching and learning	Interaction hours
2017-18	--	--	--
2016-17	Prof. G. L Asawa, IIT Roorkee	Class Lect: 2 <sup>ND</sup> M. Tech. Water Resources Engg and 8 <sup>TH</sup> Sem B. Tech	16/05/16 to 26/05/2016: 50 hours
	Prof. K. S. Rao, IIT Delhi	Guest lecture: On Geological investigations for Railway Bridge, J&K	02 hours
2015-16	--	--	--
<b>Marks Claimed</b>			<b>04</b>

*Table B.5.10b*

Criteria 6

<b>CRITERION 6</b>	<b>Facilities and Technical Support</b>	<b>Max. Marks: 80</b> <b>Claimed: 75</b>
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**6.1 Adequate and well equipped laboratories, and technical Manpower (37)**

The Department of Civil Engineering has well equipped laboratories and technical manpower as shown in Table below:

S. No	Name of laboratory	No of students per batch (Batch size)	Name of important equipments	Weekly utilization status (all the course for which the lab is utilized)	Technical manpower support		
					Name of the technical officer	Designation	Qualification
1	<b>Fluid mechanics Lab</b>	35	1. Hydraulic Bench-7 in no. 2. Tilting Flume-1(25cm) 3. Imported Tilting Flume-1(30cm, multipurpose-Pitot tube, Venturi Meter, Open channel flow etc.) 4. Tilting Fume-30cm Tilting Flume(17.5 m, 1m width,60cm height) 5. Francis Turbine 6. Pelton Turbine 7. Keplon Turbine 8. Venturi and orifice meter 9. Pipe friction(Major and minor losses) 10. Bernaulis Apparatus(1 new and 1 old) 11. Rectangular and V-notch(1 old & 1 new) 12. Menin Co-efficient of discharge(CDCC) 13. Darcy's Law	12 Hours	1. Gulam Hassan Wani  2. Shirajudin Shiekh	Technical Assistant  Technical Assistant	Graduate(H&S)  Under Matriculation

Criteria 6

			<p>Apparatus</p> <p>14.Sudden Expansion &amp; Contraction</p> <p>15.Pitot Tube( new &amp; 1 old)</p> <p>16.Reynold's Apparatus(1 new &amp; 1 old)</p> <p>17.Impact of Jet</p> <p>18.Infiltration rings(5 in No.)</p>				
2	<b>SOM Lab</b>	35	<p>1.Universal Testing Machine-100 Ton Capacity</p> <p>2.CTM- 100 Ton Capacity, Fully Computerized</p> <p>3.Electric Hydraulic Jack-200 Ton</p> <p>4.Actuator-10 Ton</p> <p>5.Loading Frame-50 Ton</p> <p>6.Hydraulic Jack manual(100 Ton &amp; 20 Ton)</p>	12	<p>1.Gulam Rasool dar</p> <p>2.Gulam Rasool Teli</p> <p>3.Abdul Rasheed RAina</p>	<p>Senior Technical Assistant</p> <p>Technical Assistant</p> <p>Technical Assistant</p>	<p>Graduate and ITI</p> <p>Under Matriculation</p> <p>Under Matriculation</p>
3	<b>Concrete Technology Lab</b>	35	<p>1.Concrete Mixer</p> <p>2.Table Vibrator</p> <p>3.Needle Vibrator</p> <p>4. Vicat Apparatus-4 in no.</p> <p>5.Weighing Balance</p> <p>6.Seives</p> <p>7.Seive Shaker</p> <p>8.Cemenr Cube Vibrator</p> <p>9.150mm Cube moulds-20 in no.</p> <p>10. 10X10X50cm beam</p>	12	<p>1.Gulam Rasool dar</p> <p>2.Gulam Rasool Teli</p> <p>3.Abdul Rasheed RAina</p>	<p>Senior Technical Assistant</p> <p>Technical Assistant</p> <p>Technical Assistant</p>	<p>Graduate and ITI</p> <p>Under Matriculation</p> <p>Under Matriculation</p>

Criteria 6

			moulds-12 in no.  11. Cylinder mould- 15cm Diameter and 30cm height-13 in no.				
4	<b>Pavement Engg. Laboratory</b>		1.Electronic Balance (Max. 30.0 kg , Precision 2.0g) 2.Counter Weighing Balance (Max. 15kg) 3.Bitumen Thin Film Oven 4.Benkelman Beam 5.Falling Weight Deflectometer 6.Viscometer 7.Electronic Digital Top Balance (Max. 1.0 kg , Precision 1.0mg) 8.Universal Bitumen penetrator 9.Laboratory Electric Oven 10.Crushing Value Apparatus 11.Aggregate Impact Value Apparatus 12.Cylindrical Measure for determination of unit weight of aggregates 13.Multipurpose Stirrer 14.Metallic Steel Frame for Buoyancy Balance 15.Bitumen Mix Compaction mould 16.Marshall Stability Test Apparatus 17.Deep Freezer 18.Flash and Fire Point (Open cup)Pensky Martens Apparatus 19.Ring & Ball Softening Point 20.Electrically operated Hot Plate 21.Laboratory Water Bath 22.Los Angles Abrasion Testing Equipment 23.Electronic Digital Top Balance (60kg ) 24.Electronic Digital Top Balance (Max. 5.0	12	Abdul Rashid  Gulam Nabi	Technical Assistant  Technical Assistant	ITI  Matriculation



Criteria 6

			<p>kg , Precision 0.10 g)                  25.Electronic Digital Top Balance (Max. 10.0 kg , Precision 0.50 kg)                  26.Battery Bank with UPS                  27.Compression Testing Machine (2000 kN)                  28.Accelerated Aggregate Polishing Machine                  29.Portable Skid Resistance Friction Tester                  30.Binder Extractor, electrically operated                  31.Sieve Set (Brass)                  32.Sieve Set (GI)                  33.Tension and Compression Proving Ring (50 kN)                  34.Tension and Compression Proving Ring (25 kN)                  35.Steel Strain Dial Gauges                  36.Bitumen Ductility Testing Machine                  37.Axle Load Measurement Plate                  38..Automatic Road Unevenness Bump Integrator                  39.Data Analysis Machine (PC)                  40.Bitumen Extractor                  41.Riffle Sample Divider</p>				
5	<b>Environmental engineering lab</b>	30	<p>1.water still                  2.PSaw water electric                  3.PSaw water bath with 6 holes                  4.PSaw water bath with 12 holes                  5.sieves                  6.hydrometer                  7.heating mantle                  8.metzer hot air oven                  9.hot plate 2000W                  10.hot plate 3000W                  11.keroy triple beam balance with box                  12.keroy triple beam balance                  13.cases for keroy</p>	6 hours	Ravigi koul	Technical assistant	Matriculation

Criteria 6

			<p>triple beam balance            14.meterz binocular            research microscope            15.deigital pH meter            CaTt CL46            16.Ph electrode C21            for toshniowal pH            meter            17.nepholo turbidity            meter type 131            18.plier            19.screwdriver            20.plastic canes            21.hand gas            22.water testing kit            23.flame photometer            24.digital dissolved            oxygen analyzer            25.KVA CVT            26.HP laser printer            27.hot air oven inside            aluminum chamber            28.muffle furnace            29.digitla pH meter            30.digital water            thermometer            31.digital pH meter            “systronic”            32.conductivity/TDS            meter            33.distillation            apparatus single            sledges            34. distillation            apparatus wrought            glass            35.D.O meter            36.pH meter digital            range (0-4)            37.TDS digital meter            38.turbidity meter            digital (0-1999ppm)            39.water testing kit</p>				
6	<b>Structural Analysis Lab</b>	35	<p>1.Three Hinged Arch            Apparatus            2.Two Hinged Arch            Apparatus            3.Elastically Coupled            Beam Apparatus            4.PortaI Frame            Apparatus            5.Redundant joint            Apparatus            6.Curved Beam</p>	12	<p>1.Gulam            Rasool dar            2.Gulam            Rasool            Teli</p>	<p>Senior            Technical            Assistant            Technical            Assistant            Technical</p>	<p>Graduate and            ITI            Under            Matriculation            Under</p>

Criteria 6

			Apparatus 7.Unsymmetrically Bending Apparatus 8.Elastic Properties of deflected Beam Apparatus 9.Deflection of Truss Apparatus 10.Column and Strut Apparatus		3.Abdul Rasheed Raina	Assistant	Matriculation
7	<b>CAD Lab</b>	35	1.46 PC's  <u>Software's</u> 1.Plaxis 3D 2.Autocad 2017 3.Surfer 4.Matlab 5.Optum G2 6.GEO Suite	12	Ashok Kumar PAndit	Technical Assistant	Matriculation
8	<b>Traffic Engg. Lab</b>	35	1.Traffic Data Analysis Machines (PCs) 2.Scientific Data Analysis and Graphing Software - Sigma Plot 3.Traffic Network and Isolated Intersection Study Tool- TRANSYT(Software) 4.Palm Top GPS set 5.Traffic Recording Camera 6.Traffic Recording Visual Display Unit 7.Driver Testing Equipment 8.Speed Gun 9.LCD Projector 10.Battery bank with UPS 11.Traffic Volume Count Pads 12.Stop Watches 13.Reflective Safety Jackets 14Automatic Pneumatic Loop Based Traffic Counter	12	Abdul Rashid  Gulam Nabi	Technical Assistant  Technical Assistant	Matriculation ITI  Matriculation
9	<b>Survey Lab</b>	35	1. Alidade 2. Alidade telescopic 3. Binoculars 4. Barometer Anoride 5. Prismatic Compass 6. Chains	12 hours/week	1.Hassan Wani  2. Ab. Hamid khan	Senior technical assistant  Technical Assistant	B.A  Below matriculation

Criteria 6

			<ol style="list-style-type: none"> <li>7. Chain pin</li> <li>8. Survey Compass</li> <li>9. Ghat tracer</li> <li>10. Abney level</li> <li>11. Level spirit</li> <li>12. Goniometers</li> <li>13. Mallets</li> <li>14. Plumbing fork</li> <li>15. Planimeter</li> <li>16. Protector</li> <li>17. Sextant</li> <li>18. Level staff</li> <li>19. Tents</li> <li>20. Total Stations</li> <li>21. Level Nikkon</li> <li>22. Dumpy level</li> <li>23. Auto level</li> <li>24. Prismatic compass</li> </ol>				
10	<b>Geotechnical Engg. Lab</b>	35	<ol style="list-style-type: none"> <li>1. High Speed stirrer</li> <li>2. Tri axial shear test</li> <li>3. CBR test</li> <li>4. Direct shear test</li> <li>5. Permeability Apparatus</li> <li>6. UCS Apparatus</li> <li>7. Hot air oven</li> <li>8. Liquid limit</li> <li>9. Shrinkage limit set</li> <li>10. Vane shear test</li> <li>11. Extractor</li> <li>12. Sieve shaker</li> <li>13. Plate load test</li> <li>14. Relative density Apparatus</li> <li>15. Rock core sampler</li> <li>16. Static cone penetration test</li> </ol>	12 hours/week	<ol style="list-style-type: none"> <li>1.Md. Ismail</li> <li>2.Ad. Aziz</li> </ol>	<p>Senior technical assistant</p> <p>Technical Assistant</p>	<p>I.T.I</p> <p>Below matriculation</p>
11	<b>Engg. Geology lab</b>	35	<ol style="list-style-type: none"> <li>1. Weighing balance</li> <li>2. Hot air oven</li> </ol>	12 hours/week	<ol style="list-style-type: none"> <li>1. Ravi ji koul</li> </ol>	Technical Assistant	matriculation

**Table B.6.1a**

**Additional facilities created for improving the quality of learning experience in laboratories**

SI. No.	Facility Name	Details	Reason(s) for Creating Facility	Utilization	Area in which students are expected to have enhanced learning	Relevance to Pos/PSOs
1.	<b>Additional Equipments</b>	1.Cube mould 100mm	1.Student project	1.Student project	Acquire knowledge	Helps in speedy and

*Criteria 6*

		2. Lateral Extensometer 3.Rebound Hammer 4. Load cells	2. Faculty research 3.Research Students	2. Faculty research 3.Research Students	beyond curriculum	effective attainment
2.	<b>Wi-Fi</b>		Wireless access of internet	Can access Wi-Fi anywhere in the campus 24 x 7	For knowledge sharing	
3.	<b>Hitech Rooms</b>	With Projectors, Cameras, ACs, LED TVs	For conducting Seminars, Guest lectures	Students and staff	For sharing knowledge	
4.	<b>Committee Room</b>	With Projectors, Cameras, ACs, LED TV	For conducting Seminars,	Students and staff	For sharing knowledge	
5.	<b>White Boards</b>	All labs are equipped	with white board	For explaining	experiments	
6.	<b>Generator</b>	Generator in the campus	Power failure	Power failure	Acquire knowledge without interruption	
7.	<b>Cabins for research scholars</b>	Cabins, PCs, Net facility	All labs are provided with cabins for research scholars in their respective field.	Research Scholars	Study and Research	

**Table B.6.1b**

**6.2 Laboratories: Maintenance and overall ambiance (10/10)**

**General**

- Students are allowed to use all labs at all time.
- White boards are made available in all labs.
- Extra lab hours are provided for students if required.
- Sufficient labs are present in department as per curriculum requirements.
- All the labs are equipped with good technical support staff available during working hours and beyond (as and when required by the students or faculty).

**Computer lab**

- CADD lab in the department is well equipped with sufficient number of PCs with internet connectivity.
- This lab is provided with un-interrupted power supply (UPS).
- Each student can use single PC for their lab work assigned /Project purpose.
- Labs are equipped with sufficient licensed software to run program specific curriculum.

**Other laboratories**

- All labs have ample working space for all lab works.
- All labs are well ventilated and well lit.
- Calibration, servicing and cleaning of equipments are done regularly.

### *Criteria 6*

All the labs are under the charge of specific faculty members and are maintained in good and working condition. Any funds required for maintenance are provided by the institute on submitting of an application by the I/C faculty member/s.

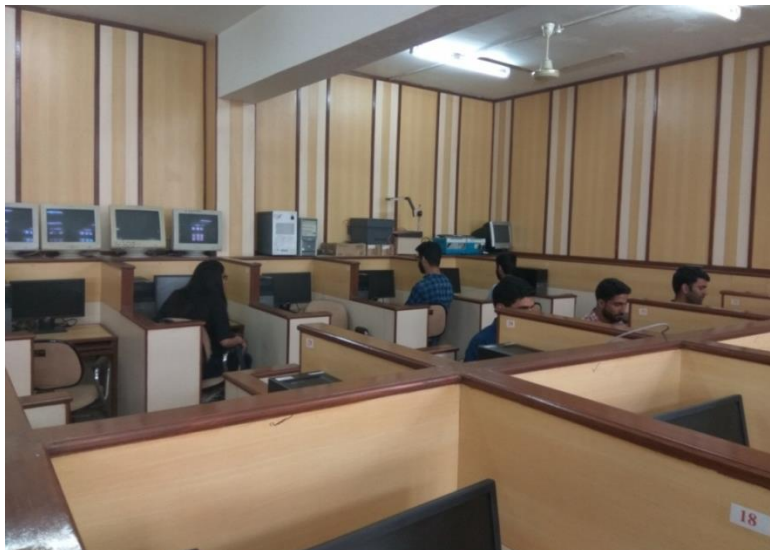
### **Ambiance**

#### **1. Survey Lab**

The lab has different types of equipment stored in different sections and in a well-organized manner. The equipment is categorized into conventional and state-of-the-art types.

#### **2. Computer Lab**

A well-equipped computer lab with sufficient number of computers makes student easy in learning all software's. This lab consists of software's like CAD, STAAD pro, and Surferetc. which are helpful for structural design.



*Figure B.6.2a*

#### **3. Geotechnical Engineering Lab**

Geotechnical engineering lab is well equipped with latest equipments for determination of soil properties, and almost each equipment is more than two in number. This lab is used for research and consultancy purpose also.



*Figure B.6.2b*

*Criteria 6*

**4. Pavement Engineering Lab**

Pavement Engineering Lab is well equipped with the facilities like testing and design of bitumen and bituminous mixes, aggregates and other materials. This is also equipped with various types of equipment required for field studies of pavements. This lab is also used for PG and research purpose. This lab is also equipped with state of the art equipment.



*Figure B.6.2c*

**5. Fluid Mechanics Lab**

Fluid mechanics lab is equipped with advanced equipments which can be used for research purpose also along with UG level. This lab is also used for consultancy purposes.



*Figure B.6.2d*

**6. Structural Analysis Lab**

Structural Analysis lab is sufficiently equipped with the experiments required for UG level students.



*Figure B.6.2e*

### 6.3 Safety Measures in Laboratories (10)

Many safety measures are in place in the laboratories of the department. Students too have to strictly follow some of the safety measures during lab hours. Below are safety measures provided in the labs: Same safety measures are adopted in other labs.

SL. No.	Name of the Laboratory	Safety measures
1	<b>Transportation Engineering Laboratory</b>	1.Fire safety (fire extinguisher ) 2. Safety Jackets 3. First Aid Box 4. Additional MCB for each equipment 5. Lightning Arrest 6. Working Gloves
2	<b>Geotechnical Engineering Laboratory</b>	1.Fire safety (fire extinguisher ) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
3	<b>Survey Lab</b>	1.Fire safety (fire extinguisher ) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
4	<b>Strength of materials lab</b>	1.Fire safety (fire extinguisher ) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
5	<b>Environmental Engineering Laboratory</b>	1.Fire safety (fire extinguisher ) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
6	<b>Concrete Technology Lab</b>	1.Fire safety (fire extinguisher ) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
7	<b>Fluid Mechanics lab</b>	1.Fire safety (fire extinguisher ) 2. First Aid Box 3. Additional MCB for each equipment



	4. Lightning Arrest
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*Table B.6.3***6.4 Project Laboratory/Facilities (18)**

All the laboratories are well equipped with equipment for conducting B.Tech Projects. The Labs have all the necessary equipment including the equipment required for field studies. Both analytical and experimental tools are available. For example those of the students who are doing their project work in the area of Pavement Engineering or Traffic Engineering have all the Pavement material characterization equipment available in the lab besides equipment required for design of Bituminous, WMM, WBM mixes. Also softwares for analysis of data and field equipment like Benkelman Beam, Light FWD, Bump Integrator, Weighing Axle Load Plate, Traffic Recording Camera, Speed Gun, Count Pads, Stop Watches, Automatic Pneumatic Loop Based Counter, Reflective Safety Jackets etc. are available for project work of students. Many of the facilities available for project work of students are shown in Table 1 and Table 2 above.

Any funding required for fabrication of equipment, purchase of equipment, purchase of material, with regard to the project work of the students, is readily provided by the NIT Srinagar administration on submission of an application by the students through their supervisors/ guides. There is a separate dedicated account-head for project work of the students. There are also some centralized facilities available in the institute where the students can do a part of their project work, if required, like Central Research Facility Lab where advanced equipment like XRD, SEM etc. are installed. The facilities available in other departments are also utilized and there is no restriction for that. A student doing project work in some area of Civil Engineering can use any lab in the department where the facility required for his/ her project work is available. This allows optimum utilization of the facilities.

Criteria 7

<b>CRITERION 7</b>	<b>Continuous Improvement</b>	<b>Max. Marks: 75 Claimed: 67</b>
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**7.1. Actions taken based on the results of evaluation of each of the POs & PSOs (26)**

**POs & PSOs Attainment Levels and Actions for improvement – CAY (2017-2018)**

POs	Target Level	Attainment Level	Observations
<b>PO1: Engineering Knowledge:</b> To apply the basic knowledge of contemporary science and technology along with civil engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.			
<b>PO1</b>	3	2.62	Civil engineering curriculum requires the strong foundation of theoretical and practical knowledge of science and mathematics, which the students study in their first year, but students lag in correlating the theoretical concepts with applications.
<b>Action 1:</b> Visit industries that are working in core areas of civil engineering. Understand the design & construction processes to boost the technical knowledge. This also helped to understand work ethics in industries.			
<b>Action 2:</b> We inspire students to participate in technical events, other events where their basic knowledge should convert to application matching with defined level of their standards.			
<b>PO2: Problem analysis:</b> To identify, formulate and analyze a complex civil engineering problem supported by literature survey leading to substantial conclusions.			
<b>PO2</b>	3	<b>2.45</b>	The problem solving and analyzing skills gained through first and second year courses helps the students to apply in real time application.
<b>ACTION 1:</b> Students are encouraged to observe, their homes and surroundings to gain insight into real life engineering problems and think of possible approaches/solutions to these problems.			
<b>ACTION 2:</b> Gained knowledge on complex engineering problems and solution on visiting field/ industry.			
<b>ACTION 3:</b> Latest Literature is made available and easily accessible to the students			
<b>PO3: Design/development of solutions:</b> To obtain solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.			
<b>PO3</b>	3	<b>2.39</b>	Some of the projects developed by the student as hobby projects/major projects (final year) are not fully considering the social and environmental issues.
<b>ACTION1:</b> Students are motivated to include all standard parameters and constraints according to National and International safety norms and to address environmental concerns.			
<b>PO4: Conduct investigations of complex problems:</b> To apply systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.			
<b>PO4</b>	3	<b>2.48</b>	It is observed that most of the project abstract and literature

Criteria 7

			survey are addressing the research based approach but does not end with valid conclusions.
<b>ACTION1:</b> Academic workshops are coming into picture to apply more knowledge in terms of conduction of experiments and analysis of results at required level.			
<b>PO5:Modern tool usage:</b> To develop and use appropriate state-of-the-art softwares and modern IT-based engineering tools/resources for modeling of complex civil engineering problems, duly identifying the limitations.			
<b>PO5</b>	<b>3</b>	<b>1.19</b>	It is observed that Up-gradations of tools and resources are necessary to meet the industry standards and research.
<b>ACTION1:</b> Modern labs are developed to learn/ demonstrate the use of Modern tools like MATLAB, TransCAD, AutoCAD, CUBE, VISSIM, TRANSYT, SigmaPlot, ArcGIS, StadPro etc. to specify fulfilment of requirement in engineering applications in new industrial era.			
<b>PO6: The engineer and society:</b> To utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.			
<b>PO6</b>	<b>3</b>	<b>1.66</b>	The courses of Civil Engineering are addressing the needs of, health, safety and social concerns regarding engineering practices in real life.
<b>ACTION1:</b> To understand the safety concerns and social aspects, students visited industry to expand their practical knowledge with the effect of improved practices in engineering.			
<b>PO7: Environment and sustainability:</b> To ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.			
<b>PO7</b>	<b>3</b>	<b>1.56</b>	The issues of global and environmental awareness among the student should be improved.
<b>ACTION1:</b> Students are encouraged to indulge in projects, in which global and environmental issues are improved, with respect to consumption of energy and utilization of renewable energy resources.			
<b>PO8: Ethics:</b> To adhere to professional ethics and norms, and respect human values while practicing the engineering profession.			
<b>PO8</b>	<b>3</b>	<b>1.25</b>	The students are doing better in improving the overall expertise in field of engineering but due to lack of communications and other ethical moral knowledge, some are lagging in real life situations.
<b>ACTION 1:</b> Students are motivated and made aware about the demands of engineering profession, duties towards society & fellow human beings and importance of honesty and ethics.			
<b>ACTION 2:</b> Lectures and awareness/ motivational programmes are conducted. Career readiness program, corporate lectures and motivational talks are arranged to overcome the above observations.			
<b>PO9: Individual and team work:</b> To perform efficiently as a member or leader of a team or as an individual in diverse work environments			
<b>PO9</b>	<b>3</b>	<b>1.06</b>	The students are not able to work as individual as well as in team.

Criteria 7

<p><b>ACTION1:</b> Institute has initiated Program which provides a platform to work in individual as well as a group in the fields of Engineering. It helps the students to groom the skills like leadership or as an effective team member.</p>			
<p><b>PO10: Communication:</b> To deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.</p>			
<b>PO10</b>	<b>3</b>	<b>1.01</b>	The communication, presentation and report writing skills are to be further improved among the students.
<p><b>ACTION1:</b> Soft skills training is imparted to students to enhance various aspects of communication/technical talks by group discussions, presentations and new learning outcomes.</p>			
<p><b>PO11: Project management and finance</b> To implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.</p>			
<b>PO11</b>	<b>3</b>	<b>1.36</b>	Few courses of curriculum give knowledge of Management principle and applying managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environments.
<p><b>ACTION1:</b> The awareness is created among the student regarding the management principles and managing projects. The relevant courses are revised and upgraded regularly to cater to latest techniques and trends in the area.</p>			
<p><b>PO12: Life-long learning:</b> To have inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments.</p>			
<b>PO12</b>	<b>3</b>	<b>2.00</b>	The pre final year and final year courses of the program are demonstrating the resource for contemporary issues and lifelong learning.
<p><b>ACTION1:</b> Using ICT facilities, such as PPTs, live demonstration of topic imparted using video lecture.</p>			

Criteria 7

<b>ACTION2:</b> Lecture content includes new technological developmental tools and knowledge of new Products.			
<b>PSO1:</b> Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software's towards solving technical problems requiring civil engineering interventions.			
<b>PSO1</b>	<b>3</b>	<b>2.52</b>	Usage of different tools and designs are used to , develop/ implement, test, construct and maintain the civil engineering infrastructure for society, publish/ exhibit/ innovate through conferences, journals etc.
<b>ACTION1:</b> Academic workshops and conferences are coming into picture to apply more knowledge in terms of conduction of experiments and analysis as required.			
<b>PSO2:</b> Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.			
<b>PSO2</b>	<b>3</b>	<b>2.151</b>	The courses of the program are demonstrating the resource fullness for contemporary issues.  The project titles of the final year and pre-final year students are addressing the real life problems.
<b>ACTION1:</b> Students are motivated to take up the real life problems during their project work so that they can design, analyze and find solution which gives exposure to latest technologies.			
<b>PSO3:</b> Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning.			
<b>PSO3</b>	<b>3</b>	<b>2.42</b>	To inculcate ethics, good interpersonal relationships, ability to communicate, leadership and project management.
<b>ACTION1:</b> Career readiness program and corporate lectures are arranged to meet required expertise in field of engineering.			

*Table B.7.1*

**7.2. Academic Audit and actions taken thereof during the period of Assessment (15)**

**Purchase of Equipment by Civil Engineering Department during the years 2015- 2016, 2016-2017, and 2017 -2018**

S. No.	Name of the Equipment	Name of the Lab.	Date of Procurement	Cost (INR)
01.	Falling Head Permeability ( 02 No.s)	Geotech Engg. Lab.	15/02/2016	1,74000/=
02.	Constant Head Permeability( 02 No.s)	Geotech Engg. Lab.	15/02/2016	1,15600/=
03.	Front Loading Odometer ( 02 No.s)	Geotech Engg. Lab.	15/02/2016	4,39100/=
04.	Vane Shear Test Set Up ( 02 No.s)	Geotech Engg. Lab.	15/02/2016	82,800/=
05.	Static Cone Penetration	Geotech Engg. Lab.	15/02/2016	8,79,500/

Criteria 7

06.	Infrared Moisture Meter (02 No.s)	Geotech Engg. Lab.	15/02/2016	56,000/=
07.	Rapid Moisture Meter (02 No.s)	Geotech Engg. Lab.	15/02/2016	46,400/=
08.	Compaction Ramer light (03 No.s)	Geotech Engg. Lab.	15/02/2016	11,850/=
09.	Compaction Ramer Heavy (03 No.s)	Geotech Engg. Lab.	15/02/2016	12,300/=
10.	Compaction Mould 100/127 (04 No.s)	Geotech Engg. Lab.	15/02/2016	17,600/=
11.	Compaction Mould dia 150/127.3mm (04 No's)	Geotech Engg. Lab.	15/02/2016	22,860/=
12.	Sampling Tubes 38/150mm (10 No's)	Geotech Engg. Lab.	15/02/2016	22,500/=
13.	Digital Liquid Limit Penetrometer (02 No's)	Geotech Engg. Lab.	15/02/2016	58,000/=
14.	Liquid Limit Device (02 No's)	Geotech Engg. Lab.	15/02/2016	68,000/=
15.	Conventional Direct Shear Apparatus (02 No's)	Geotech Engg. Lab.	15/02/2016	4,60,000/=
16.	Director Residual Shear Testing Apparatus	Geotech Engg. Lab.	15/02/2016	10,45000/=
17.	Labotronics LT 49 ph. Meter (02 No's)	Geotech Engg. Lab.	29/04/2016	82,701/=
18.	Conventional Triaxial Test set up (02 No's)	Geotech Engg. Lab.	29/04/2016	11,90,000/=
19.	Conventional Triaxial Test set up digital	Geotech Engg. Lab.	29/04/2016	10,5000/=
20.	Digitized Motorized Sieve Shaker	Geotech Engg. Lab.	29/04/2016	1,29500/=
21.	Proving Ring with dial gauge of two KN , 4kn,5kn,10kn, 50kn,and 100kn (02 sets each)	Geotech Engg. Lab.	09/06/2016	2,72,500/=
22.	Extensometer	Structural Engg. Lab	05/01/2016	14,490/=
23.	CTM, Automatic Machine	Structural Engg. Lab	05/01/2016	14,32,449/=
24.	DO meter	PHE Lab	30/01/2017	12000/=
25.	PH Meter	PHE Lab	30/01/2017	17,500/=
26.	TDS Meter	PHE Lab	30/01/2017	11,500/=
27.	Turbidity Meter	PHE Lab	30/01/2017	13,800/=
28.	Water Testing Kit	PHE Lab	30/01/2017	19,100/=
29.	Excel Load Measurement Plate	Pavement Engg. Lab.	11/05/2015	1,71,635/=
30.	Bump Indicator	Pavement Engg. Lab.	26/08/2015	4,17,810/=
31.	Deep freezer type	Pavement Engg. Lab.	07/10/2015	3,37,500/=
32.	Buoyancy Balance for aggregate specific gravity and water absorption test	Pavement Engg. Lab.	04/12/2017	1,25,866/=
33.	Battery Bank with UPS	Pavement Engg. Lab.	04/12/2017	1,70,666/=
34.	Compression Testing Machine 2000 KN	Pavement Engg. Lab.	04/12/2015	6,03,845/=
35.	Accelerated aggregate Polishing machine	Pavement Engg. Lab.	04/12/2015	2,93,688/=
36.	Portable Skid resistance tester	Pavement Engg. Lab.	04/12/2015	2,51,733/=
37.	Traffic regarding Camera	Traffic Engg. Lab.	07/10/2015	4,50,000/=
38.	Driver Testing equipment	Traffic Engg. Lab.	04/12/2017	6,57,067/=
39.	Speed Gun (for vehicle speed)	Traffic Engg. Lab.	04/12/2017	4,66 756/=
40.	LCD Projector	Traffic Engg. Lab.	04/12/2017	1,66,115,84/=
41.	Battery bank for UPS	Traffic Engg. Lab.	04/12/2017	1,70,667/=
42.	Automatic pneumatic loop based traffic counter	Traffic Engg. Lab.	04/12/2017	4,72,000/=
43.	Theodolite	Surveying Lab	17/04/2018	17,100/=
44.	Automatic Level	Surveying Lab	18/04/2018	12980/=
45.	Hydraulic Flume	Fluid Mechanics Lab.	01/02/2015	97,80,722/=
46.	Hydraulic Bank 04 No's	Fluid Mechanics lab	29/06/2017	02,72,968/=

### Criteria 7

47.	Ground Water Flow Unit	Fluid Mechanics lab	31/05/2018	2,65,650/=
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**Table B.7.2a**

#### 1. Course file evaluation

Course files are prepared by faculty members before the semester starts. Course file contents are as per recommendations mentioned in below table. The academic committee consisting of HOD, course coordinator and few of departmental senior faculty members performs audit of course files i.e. verify the contents of the course file, lesson plan, assignments, extra material lecture notes, etc. The comments of the committee are given as feedback to the faculty member to include the recommended material. This audit ensures the quality deliverables to the students.

Sl. No.	Contents of Course File
1.	Plan of course delivery
2.	Question papers
3.	Answer scripts
4.	Assignments and Reports of Assignments
5.	Project Reports
6.	List of Laboratory Experiments
7.	Reports of Laboratory Experiments

**Table B.7.2b**

#### 2. Lectures/ Lab evaluation

The academic committee during their random observation of the lectures/lab check delivery of course material as per the lesson plan, teaching aids used, communication skill and classroom management etc. parameters to ensure the teaching methods of benchmarked standards are being used throughout the institute. Feedback is communicated to the faculty member. The academic committee for observation consists of HOD, and few senior faculty members.

#### 3. Faculty development program (FDP)

A faculty member has to undergo faculty development program. The FDP to improve the communication skills and to improve the methods of teaching-learning are carried out at the institute level itself by the learning and development team. The technical component in the teaching are improvised with the help of faculty members attending workshops, expert lectures etc. either organized at our institute or at other institute.

#### 4. Review

Review of the faculty member is taken at the end of the semester again to compare the levels – what was at the beginning and after the various feedbacks and training received.

#### Action taken by the faculty members:

1. Faculty members incorporate changes suggested by the academic committee, if any gaps are found, to ensure quality deliverables.
2. Faculty members have to match the pace of their deliverables as per the students' requirements as well as they have to schedule the lecture plans in such a way that the syllabus is completed on time. To achieve this they can arrange extra lectures and cope- up the syllabus.

*Criteria 7*

3. Regular analysis of the results of internal assessment examination of all subjects is done and concerned faculties are guided to take necessary actions. Remedial classes are scheduled in reference to academic progress of the student.

4. The academic observation is carried out considering two criteria – feedback from students (requested to the authorities) and randomized observation.

**7.3. Improvement in Placement, Higher Studies and Entrepreneurship (9)**

<b>Item</b>	<b>CAY (2017)</b>	<b>CAYm1 (2016)</b>	<b>CAYm2 (2015)</b>
Total No. of Final Year Students	119	115	95
No. of Students Placed in Companies or Government Sector	106	96	80
No. of Students admitted to higher studies with valid qualifying scores (GATE or Equivalent State or National Level Tests, GRE, GMAT, etc.)	08	07	10

*Table B.7.3*

**7.4. Improvement in the quality of students admitted to the program (17)**

<b>Item</b>		<b>CAY 2017</b>	<b>CAYm1 2016</b>	<b>CAYm2 2015</b>
<b>Joint Entrance Examination, main (JEE main)</b>	<b>No. of Students admitted</b>	69	57	75
	<b>Opening Rank</b>	OP-32547 OBC-9920 SC-4561 ST-1514	OP-25023 OBC-10375 SC-105896 ST-147413	OP-25205 OBC-11207 SC-118885 ST-128219
	<b>Closing Rank</b>	OP-80526 OBC-87360 SC-24246 ST-3328	OP-48318 OBC-305136 SC-211351 ST-172461	OP-54699 OBC-416539 SC-247543 ST- 211805

*Table B.7.4*



Criteria 8

<b>CRITERION8</b>	<b>FIRSTYEAR ACADEMICS</b>	<b>Max. Marks: 50 Claimed: 50</b>
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**8.1. First Year Student-Faculty Ratio (FYSFR)(5)**

Assessment =  $(5 \times 15) / \text{Average FYSFR}$  (Limited to Max. of 5)

Data for first year courses to calculate the FYSFR:

Year	Number of students (approved intake strength)	Number of faculty members (considering fractional load)	FYSFR
CAY	727	47	15.47
CAY <sub>m1</sub>	685	43	15.93
CAY <sub>m2</sub>	685	41	16.70
Average	16.03		
Assessment = $(5 \times 15) / \text{Average}$	4.67		

*Table B.8.1*

**8.2. Qualification of Faculty Teaching First Year Common Courses (5)**

Assessment of qualification =  $(5x + 3y) / RF$

$x$  = Number of Regular Faculty with Ph. D

$y$  = Number of Regular Faculty with Post-graduate qualification

$RF$  = Number of faculty members required as per SFR of 15:1

Year	$x$	$Y$	$R$ $F$	Assessment of faculty qualification $(5x + 3y) / R$
<b>CA</b>	20	48	48.46	5
<b>CAY<sub>m1</sub></b>	20	43	45.66	5
<b>CAY<sub>m2</sub></b>	20	42	45.66	5
Average Assessment				5

*Table B.8.2*

**8.3 First Year Academic Performance (10)**

Academic Performance =  $((\text{Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale}) \text{ or } (\text{Mean of the Percentage of marks in First Year of all successful students} / 10)) \times (\text{number of successful students} / \text{number of students appeared in the examination})$

Successful students are those who are permitted to proceed to the second year.

Criteria 8

<b>Academic Performance</b>	<b>2017-18</b>	<b>2016-2017</b>	<b>2015-2016</b>
Mean of percentage of Marks of all successful students (X)	76.16	72.37	70.74
Total Number of successful students (Y)	492	345	571
Total Number of students appeared in the examination (Z)	508	385	573
Academic Performance	7.38	6.49	7.05

**Table B.8.3**

Assessment = Average API: 6.97

**8.4 Attainment of Course Outcomes of first year courses (10)**

**8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)**

*Examples of data collection processes may include, but are not limited to, specific exam questions, laboratory tests, internally developed assessment exams, oral exams assignments, presentations, tutorial sheets etc.)*

**(i) CO Assessment Rubrics:**

Course Outcome is evaluated based on the performance of students in mid-term exam, major examination and continuous assessment (in the form of assignments, quizzes, case-study and presentation). The contributions are 30%, 60% and 10% for mid-term exam, major examination and continuous assessment.

- 1. Mid-Term Assessment (30% weightage)**
- 2. Major Assessment (60% weightage)**
- 3. Continuous Assessment (10% weightage)**

**(ii) CO Assessment Tools:**

The various assessment tools used to evaluate COs are listed in table given below.

<b>Course</b>	<b>Assessment Tools</b>	<b>Frequency</b>
Theory	Mid-term	Once/Course
	Continuous Assessment	Daily
	Major	Once/Course
	Continuous Assessment (Report, Experiments)	Daily

Criteria 8

Lab	Major Lab Exam (Viva-voice, Perform a Given Experiment)	Once/Lab Course
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**Table B.8.4.1a**

Course outcomes of all courses are assessed with the help of assessment tools mentioned in above Table and attainment level is evaluated based on set attainment rubrics as per Table given below. If the average attainment of a particular course for three consecutive years is greater than 80% of the maximum attainment value (i.e.  $80\% \text{ of } 3 = 2.4$ ), then for that particular course the current rubrics for attainment must be changed to analyse continuous improvement.

**Attainment Levels of COs**

Assessment Methods	Attainment Levels	
Internal Assessment	Level 1	50% of students scoring more than 50% marks in internal assessment tools
	Level 2	60% of students scoring more than 50% marks in internal assessment tools
	Level 3	70% of students scoring more than 50% marks in internal assessment tools

**Table B.8.4.1b**

University Assessment	Level 1	50% of students scoring more than 50% marks in university examination.
	Level 2	60% of students scoring more than 50% marks in university examination.
	Level 3	70% of students scoring more than 50% marks in university examination.

**Table B.8.4c**

(ii) CO Attainment Calculation of a Course:

**Assessment tool of Computer fundamentals for batch 2013 - 17**

Assessment Tool	CIT101.1	CIT101.2	CIT101.3	CIT101.4
Assignment 1	3	3	-	-
Assignment 2	-	-	-	-
Mid-Term Exam	3	3	-	-
Optional Tests (Make up tests/ Re-tests)	-	-	-	-
Internal Attainment	3	3	-	-
End-Term Exam	3	3	3	3

Criteria 8

<b>Total Attainment</b>	3	3	1.8	1.8
<b>Overall CO attainment</b>	2.4			

*Table B.8.4.1d*

**Assessment tool of Computer fundamentals Lab for batch 2013 - 17**

<b>Assessment Tool</b>	<b>CIT102.1</b>	<b>CIT102.2</b>	<b>CIT102.3</b>	<b>CIT102.4</b>	<b>CIT102.5</b>
<b>Daily Evaluation</b>	3	2	2	3	-
<b>End-Term Exam</b>	3	3	3	3	3
<b>Total Attainment</b>	3	2.5	2.5	3	1.5
<b>Overall CO Attainment</b>	2.5				

*Table B.8.4.1e*

**(iii) Quality/Relevance of Assessment Process:**

**Theory:**

**Mid-term Test:** It serves to encourage students to keep up with subject matter covered in class. This is of 90 minute duration and is evaluated for 30 marks. Minimum one test is conducted for each course. The questions are framed in such a way that it should satisfy blooms taxonomy, wherein each question is mapped to the appropriate course outcome of the respective course, which is evaluated based on the set attainment levels by the department.

**Major Exam:** It is of 2 hours duration and is evaluated for 60 marks. The question paper is framed in such a way that it satisfies blooms taxonomy, wherein each question is mapped to the appropriate course outcomes of the respective course, which is evaluated based on the set attainment levels by the department. The question paper will be verified by the Head of the Department and may be accepted with or without modifications.

**Continuous Assessment:** It includes assignments, quiz, presentations, etc. These are qualitative performance assessment tools designed to assess students' knowledge of engineering practices, framework and problem solving.

Students are assigned course-related work to be completed outside of contact hours, and their submissions are graded on the basis of work quality and originality. A minimum of 2 assignments are given per course and each assignment is evaluated for 10 marks. The questions in the assignments should be mapped to the Course Outcomes of the subject. The questions given are categorized to knowledge, comprehension, application, analysis, evaluation and synthesis level.

**Practical:**

**Performance:** Lab courses provide students first-hand experience with course concepts and the opportunity to explore methods used in their discipline. All the students are expected to be regular and learn the practical aspects of the subject and develop the necessary skills to become professionals. In order to facilitate interaction among the students and to develop team spirit, the students are expected to carry out experiments in groups.

### Criteria 8

Performance assessment is based on the ability of the student to actively participate in the successful conduct of prescribed practical work and draw appropriate conclusions. The student submits a record of practical work performed each week.

**Mid-term lab exam:** A mid-term lab exam of 3 hours duration is conducted to assess the ability of a student to perform a given task by integrating the knowledge gained from related theory course and regular lab sessions.

**Major examination:** This end-semester practical examination is of 3-hour duration and covers the entire syllabus of the course. It should generally satisfy all course outcomes for a particular course. The COs are evaluated based on the set attainment levels.

#### 8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Program shall have set attainment levels for all first year courses.

*(The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect to the Cos of a subject plus the performance in the University examination)*

#### CO attainment of all courses

Course	CAY 2013-17	CAYm1 2012-16	CAYm2 2011-15
MTH 101	2.59	2.1	2.4
MTH 201	2.43	2.13	2.16
CIV 102	2.4	2.7	2.4
HU 101	2.52	2.76	2.28
HU 201	2.64	2.52	2.40
MEC 201	2.4	2.37	2.37
PHY 101	2.5	2.53	2.56
PHY 102 P	2.78	2.82	2.56
PHY 201	2.51	2.47	2.52
PHY 202 P	2.72	2.75	2.85
IT 101	2.5	2.5	3
IT 102 P	2.4	1.9	2.4
CSE 201	2.4	2.4	2.4
CSE 202 P	3	3	2.4
CHEM 101	2.4	2.4	2.4
CHEM 102 P	2.2	2.2	2.2
CHEM 201	2.4	2.4	2.4
CHEM 202 P	2.4	2.4	2.4

Table B.8.4.2

**8.5 Attainment of Program Outcomes from first year courses (20)****8.5.1 Indicate results of evaluation of each relevant PO and/ or PSO, if applicable (15)**

*(Describe the assessment processes that demonstrate the degree to which the Program Outcomes are attained through first year course and document the attainment levels. Also include information on assessment processes used together the data upon which the evaluation of each Program Outcome is based indicating the frequency with which these processes are carried out)*

**(I) PO Assessment**

PO assessment is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on CO attainment where 80% weightage is given to attainment through end exam and 20% weightage is given to attainment through internal assessments. Indirect assessment is done through program exit survey, alumni survey and employer survey where program exit survey and employer survey are given a weightage of 25% each and alumni survey is given a weightage of 50%.

**(II) PO Assessment Tools**

The various direct and indirect assessment tools used to evaluate POs and the frequency with which the assessment processes are carried out are listed in table below:

**Assessment tools used for evaluation of PO and PSO attainment**

PO ASSESSMENT TOOLS AND PROCESSES				
		Course Type	Assessment Methods	Frequency
Direct (80% weightage)	CO Assessment	Theory	Internal Test	Three per course
			Assignments	Twice per course
			End Exam	Once per course
		Practical	Performance	Every lab session
			Model Lab exam	Once per course
			University Exam	Once per course
		Seminar	Presentation	Once per course
		phase I	Zeroth Review	Once per course
				Continuous evaluation
			First Review	Once per course
			Second Review	Once per course
			Final Review	Once per course

Criteria 8

			Phase II		Continuous evaluation
		Viva-Voce	Institute assessment		Once in a program
Indirect (20% weightage)	Surveys	Program Exit Survey			Once in a year
		Employer Survey			Once in 2 years
		Alumni Survey			Once in a year

Table B.8.5.1a

(I) Direct Assessment Tools and Process

Direct assessment tools described in above section are used for the direct assessment of POs. Initially, the attainment of each course outcome is determined using internal as well as external assessment. The attainment of each PO corresponding to a particular course is determined from the attainment values obtained for each course outcome related to that PO and the CO-PO mapping values.

PO Attainment: CAY-2013-17

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MTH10	2.9	2.2	2.6	2.5	2.5							
MTH20	3	2.	2.5	2	2.5							
CIV 102	3	3				2	1			2	3	3
HU 101				1.2		1				1.8	1	
HU 201						1.52				1.08		1.20
MEC	2.8	0.7	0.8	0.8	0.8	0.7	0.8	1.8	0.8	0.7	0.8	2.
PHY	2.5	1.96		0.								
PHY	2.92	2.85						2.85				
PHY	2.52	1.91		0.6								
PHY	2.8	2.85						2.85				
IT 101	1.5		1.99	0.	1.6	0.9			0.45			
IT 102 P	1.06	0.5	2.5	1.	1.6	1.46						
CSE 201	2.4	2.4	2.4	2.	2.3	0.8	0.8		0.8	0.8	1.85	2.4
CSE 202	3	3	3	3	2	1	1		1	1	1	1
CHM		1.2	0.		0.4	0.4						
CHM		0.76	0.		0.2	0.24						
CHM			0.				0.8					1.26
CHM	1.31	1.31	0.			1.31	1.3					
Average	1.77	1.51	0.99	0.84	0.8	0.63	0.32	0.42	0.24	0.41	0.49	0.60

Table B.8.5.1b

CAYm1-2012-16

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MTH	2.7	2.75	2.68	2.70	2.26							
MTH	2.6	2.2	2.2	1	2.13							

Criteria 8

<b>CIV 102</b>	3	2	3			3	2		2	2	3	3
<b>HU 101</b>				0.96		1.4				1.72	1	
<b>HU 201</b>						1.4		1.08	0.96	0.96	0.96	1.12
<b>MEC 201</b>	2.8	0.7		0.6	0.8	0.7	0.	1.8	0.8	0.7	0.	2.8
<b>PHY 101</b>	2.5	1.93		0.6					1	-	-	2
<b>PHY 102</b>	2.6	2.82						2.	1	1	1	1
<b>PHY 201</b>	2.4	1.9		0.6					-	-	1	2
<b>PHY 202</b>	3	2.7	-	-	-			2.				
<b>IT 101</b>	1		1.3	0.9	1.	0.45			0.45			
<b>IT 102 P</b>	0.73	0.3	2.5	1.1	1.69					1.69		
<b>CSE 201</b>	2.4	2.4	2.4	2.4	2.3	0.8	0.		0.8	0.8	1.85	2.4
<b>CSE 202</b>	3	3	3	3	2	1	1		1	1	1	1
<b>CHM 201</b>		1.2	0.4		0.4	0.4						
<b>CHM 201</b>		0.76	0.2		0.24	0.24						
<b>CHM 202</b>			0.3				0.					1.2
<b>CHM 202</b>	1.31	1.31	0.9			1.31	1.					
<b>Average</b>	<b>1.68</b>	<b>1.45</b>	<b>1.07</b>	<b>0.74</b>	<b>0.75</b>	<b>0.59</b>	<b>0.37</b>	<b>0.47</b>	<b>0.45</b>	<b>0.55</b>	<b>0.59</b>	<b>0.92</b>

Table B.8.5.1c

CAYm2-2011-15

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>MTH101</b>	2.6		2.75	2.29	2.3							
<b>MTH</b>	2.7	2.7	2.2	1.8	2.4							
<b>CIV 102</b>	2	2				3	1	1			3	3
<b>HU 101</b>				0.96		1.17				1.48	0.92	
<b>HU 201</b>						0.9			0.9	0.96	0.96	1.12
<b>MEC 201</b>	2.8	0.7	0.8	0.8	0.8	0.7	0.8	1.8	0.8	0.7	0.8	2.8
<b>PHY 101</b>	2.4	1.37		0.6								
<b>PHY 102</b>	2.7	2.78						2.75				
<b>PHY 201</b>	2.5	1.5		0.6								
<b>PHY 202</b>	2.8	2.7		-				2.75				
<b>IT 101</b>	1		1.5	0.9	0.7	0.75			0.45			
<b>IT 102 P</b>	1.2	0.6	3	1.2	1.8	0.6						
<b>CSE 201</b>	2.4	2.4	2.4	2.4	2.3	0.8	0.8		0.8	0.8	1.85	2.4
<b>CSE 202</b>	3	3	3	3	2	1	1		1	1	1	1
<b>CHM 201</b>		0.95	0.4		0.4	0.40						
<b>CHM 201</b>		0.75	0.2		0.2	0.24						
<b>CHM 202</b>			0.3				0.8					1.26
<b>CHM 202</b>	1.31	1.31	0.9			1.31	1.3					
<b>Average</b>	<b>1.65</b>	<b>1.39</b>	<b>0.9</b>	<b>0.81</b>	<b>0.72</b>	<b>0.61</b>	<b>0.32</b>	<b>0.46</b>	<b>0.22</b>	<b>0.27</b>	<b>0.47</b>	<b>0.64</b>

Table B.8.5.1d

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)



Criteria 8

(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)

POs Attainment Levels and Actions for Improvement (CAY 2013-2017)

PO	Target Level	Attainment Level	Observations
PO1	Engineering Knowledge		
PO1	1.76	1.77	TARGET LEVEL ATTAINED.  Since students have basic background in subjects like Mathematics and Engineering Sciences the performance in the mid-term exam as well as end-exam was pretty good. However IT 101, IT 102 and CHM 202 P have not attained the target level.
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. ICT enabled teaching.</li> <li>2. Conducted problem oriented tutorial classes.</li> <li>3. Remedial classes for weaker students.</li> </ol>			
PO2	Problem Analysis		
PO2	1.54	1.51	TARGET LEVEL NOT ATTAINED.  Since syllabus is focused on analytical concepts, analysis of various engineering problems was practiced more during the class sessions. So the students were able to perform good in the mid-term and end examination. However MEC 201, IT 102 P, CHM 201 T, CHM 202 P and CHM 201 P have not attained the target level
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Problem analysis oriented teaching</li> <li>2. Conducted Tutorial sessions to solve engineering problems</li> <li>3. Weaker student coaching</li> </ol>			
PO3	Design/development of Solutions		

Criteria 8

PO3	0.95	0.99	<p>TARGETLEVELATTAINED.</p> <p>Special attention were given to difficult subjects which exposed the students to develop solutions for various engineering problems.</p> <p>However MEC 201, CHM 201 T, CHM 201 P, CHM 202 P and CHM 202 T have not attained the target level</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Practiced design solutions of the engineering problems in the class room hours</li> <li>2. Exposure to professional approach in solving complex problems</li> <li>3. ICT enabled teaching</li> </ol>			
PO4	Conduct Investigations of Complex Problems		
PO4	1.27	0.84	<p>TARGETLEVEL NOT ATTAINED</p> <p>Class hours enriched with problems and case studies helped the students to get gather information about concepts and to solve the problems by investigating it.</p> <p>The syllabus is concentrated more on problem analysis, the classroom sessions helped the students in conducting investigations of complex engineering problems. However MEC 201, PHY 101 and PHY 201 have not attained the target level.</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. ICT enabled teaching</li> <li>2. Expert lectures</li> <li>3. Conducted Technical events as part of Technical Fest &amp; other professional body activities</li> </ol>			
PO5	Modern Tool Usage		
PO5	1.10	0.80	<p>TARGETLEVEL ATTAINED</p> <p>Exposure to various training sessions boosted the usage of modern tools in the engineering streams</p> <p>However CHM 201 T and CHM 201 P have not attained the target level</p>

Criteria 8

<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Professional Trainingsessions</li> <li>2. Demonstration of latest software tools like CAD and scripting languages</li> <li>3. Conducted Technical events as part of Technical Fest &amp; other professional body activities</li> </ol>			
PO6	The Engineer and Society		
PO6	0.86	0.63	<p>TARGET LEVEL NOT ATTAINED</p> <p>Commitment of an Engineer to the society was trained as part of curriculum. Various NSS activities were arranged to boost the duties and responsibilities of budding Engineers</p> <p>Seminar on Professional ethics conducted for the students trained them about the duties and responsibilities.</p> <p>However CHM 201 T and CHM 201 P have not attained the target level</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Conducted Social Service activities as part of NSS</li> <li>2. Expert sessions on Professional Ethics</li> <li>3. Expert sessions on duties and responsibilities of Engineers in the society</li> </ol>			
PO7	Environment and Sustainability		
			<p>TARGET LEVEL NOT ATTAINED</p> <p>The sustainable engineering practices were included in the curriculum which enabled the students to learn more about the Environment and sustainability.</p>
PO8	Ethics		
PO8	0.28	0.42	<p>TARGET LEVEL ATTAINED</p> <p>Students were given training on ethics</p> <p>Instructions were given to the student regarding the professional ethics to be followed in the laboratory sessions</p>

Criteria 8

PO9	Individual and Team Work		
PO9	0.36	0.38	TARGET LEVEL ATTAINED Lab sessions were conducted as individual / team work The social service activities are completed in teams
PO10	Communication		
PO10	0.66	0.67	TARGET LEVEL ATTAINED Students were given training on communication skills
PO11	Project Management and Finance		
PO11	0.57	0.59	TARGET LEVEL ATTAINED Understanding and demonstrating management principles and applying to own works enable students to get exposed to Project management
PO12	Lifelong Learning		
PO12	0.57	0.60	TARGET LEVEL ATTAINED Made the students aware about the need, to prepare and to engage in independent and life long learning in various engineering streams

**Table B.8.5.2a**

POs Attainment Levels and Actions for Improvement (CAYm1 2012-2016)

PO	Target Level	Attainment Level	Observations
PO1	Engineering Knowledge		

Criteria 8

PO1	1.76	1.68	<p>TARGETLEVEL NOTATTAINED.</p> <p>Since students have basic background in subjects like Mathematics and Engineering Sciences the performance in the mid-term and end examination was pretty good.</p> <p>However CHM 202 P,IT 102 PandIT101 have not attained the target level</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. ICT enabled teaching.</li> <li>2. Conducted problem oriented tutorial classes</li> <li>3. Remedialclasses for weaker students</li> </ol>			
PO2	Problem Analysis		
PO2	1.54	1.45	<p>TARGETLEVEL NOTATTAINED.</p> <p>Since syllabus is focused on analytical concepts, analysis of various engineering problems was practiced more during the class sessions. So the students wereableto perform good inthe mid-term and end-examination.</p> <p>However MEC 201andIT 102 have not attained the target level</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Problem analysisoriented teaching</li> <li>2. Conducted Tutorial sessions to solve engineering problems</li> <li>3. Weaker student coaching</li> </ol>			
PO3	Design/development of Solutions		

Criteria 8

PO3	0.95	1.07	TARGETLEVELATTAINED. Special attention were given to difficult subjects which exposed the students to develop solutions for various engineering problems. However CHM 201 T, CHM 201 P and CHM 202 T have not attained the target level
Action Taken			
<ol style="list-style-type: none"> <li>1. Practiced designingsolutions of the engineering problems in the class room hours</li> <li>2. Exposuroto professional approach in solvingcomplexproblems</li> <li>3. ICT enabled teaching</li> </ol>			
PO4	ConductInvestigations of ComplexProblems		
PO4	1.27	0.74	TARGETLEVEL NOTATTAINED Class hours enriched with problems and case studies helped the students to get gather information about conceptsand to solve the problems by investigating it. Since the syllabus is concentrated more on problem analysis, the classroom sessions helped the students in conducting investigations of complex engineering problems. However HU 101, MEC 201, PHY 101, PHY 201, IT 101andIT 102 have not attained the target level
Action Taken			
<ol style="list-style-type: none"> <li>1. ICT enabled teaching</li> <li>2. Expert lectures</li> <li>3. Conducted Technical events as part ofTechnicalFest &amp;otherprofessionalbody</li> </ol>			
PO5	Modern Tool Usage		
PO5	1.10	0.75	TARGETLEVEL NOTATTAINED Exposure to various training sessions boosted the exposure tousageofmodern tools in the engineering streams. However MEC 201, CHM 201T and CHM 201 Phave not attained the target level

Criteria 8

<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Professional Trainingsessions</li> <li>2. Demonstration of latest software tools like CAD and scripting languages</li> <li>3. Conducted Technical events as part of Technical Fest &amp; other professional body activities</li> </ol>			
PO6	The Engineer and Society		
PO6	0.86	0.59	<p>TARGET LEVEL NOT ATTAINED</p> <p>Commitment of an Engineer to the society was trained as part of curriculum. Various NSS activities were arranged to boost the duties and responsibilities of budding Engineers</p> <p>Seminar on Professional ethics conducted for the students which trained the students about the duties and responsibilities of the students. However MEC 201, CSE 201, CHM 201 T, CHM 201 Pand IT 101 have not attained the target level</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Conducted Social Service activities as part of NSS</li> <li>2. Expert sessions on Professional Ethics</li> <li>3. Expert sessions on duties and responsibilities of Engineers in the society</li> </ol>			
PO7	Environment and Sustainability		
PO7	0.34	0.37	<p>TARGET LEVEL ATTAINED</p> <p>The sustainable engineering practices were included in the syllabus which enabled the students to learn more about the Environment and sustainability</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Conducted Social Service activities as part of NSS</li> <li>2. Conducted sessions on sustainable engineering</li> <li>3. Tutorials on sustainable engineering</li> </ol>			

Criteria 8

PO8	Ethics		
PO8	0.28	0.47	TARGETLEVELATTAINED Instructions were given to the student regarding the professional ethics to be followed in the laboratory sessions Students were given training on ethics
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Expert sessions on professional ethics</li> <li>2. Class on engineering ethics to be followed by in streams</li> <li>3. Training sessions on life skills</li> </ol>			
PO9	Individual and Team Work		
PO9	0.36	0.45	TARGETLEVELATTAINED Lab sessions were conducted as individual / team work The social service activities are completed in teams
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Conducted team based social service activities</li> <li>2. Professional Training sessions as part of internships</li> <li>3. Team based problem solving in laboratory sessions</li> </ol>			
PO10	Communication		
PO10	0.66	0.67	TARGETLEVELATTAINED Students were given training on communication skills
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Expert lecture in communication skills</li> <li>2. Sessions in language lab</li> <li>3. Competitions based on communications as part of cultural activities</li> <li>4. Training on life skills</li> </ol>			



Criteria 8

PO11	Project Management and Finance		
PO11	0.57	0.59	TARGET LEVEL ATTAINED Understanding and demonstrating management principles and applying to own works enable students to get exposed to Project management
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Professional Training sessions as part of internships</li> <li>2. Class on engineering ethics to be followed by in streams</li> <li>3. Expert lecture in communication skills</li> <li>4. Financial management responsibility given to students in various technical events</li> </ol>			
PO12	Lifelong Learning		
PO12	0.57	0.92	TARGET LEVEL ATTAINED Made the students aware about the need, to prepare and to engage in independent and life long learning in various engineering streams
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Team based problem solving in laboratory sessions</li> <li>2. Professional Training sessions as part of internships</li> <li>3. Expert lectures</li> </ol>			

POs Attainment Levels and Actions for Improvement (CAYM2011-2015)

PO	Target Level	Attainment Level	Observations
PO1	Engineering Knowledge		
PO1	1.76	1.65	TARGET LEVEL NOT ATTAINED. Since students have basic background in subjects like Mathematics and Engineering Sciences the performance in the mid-term and end exam was pretty good. However IT 101, IT 102 and CHM 202 have not attained the target level

Criteria 8

<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. ICT enabled teaching.</li> <li>2. Conducted problem oriented tutorial classes</li> <li>3. Remedial classes for weaker students</li> </ol>			
PO2	ProblemAnalysis		
PO2	1.54	1.39	<p>TARGETLEVEL NOTATTAINED</p> <p>Since syllabus is focused on analytical concepts, analysis of various engineering problems was practiced more during the class secessions. So the students were able to perform better in the mid-term and end-examination. However MEC 201, PHY 101, IT 102 P, CHM 201 T, CHM 201 Pa nd CHM 202 Phave not attained the target level</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Problem analysisoriented teaching</li> <li>2. Conducted Tutorial sessions to solve engineering problems</li> <li>3. Weaker student coaching</li> </ol>			
PO3	Design/development of Solutions		
PO3	0.95	0.99	<p>TARGETLEVEL ATTAINED</p> <p>The tutorial hours conducted for all subjects has design problems and case studies,whichexposed thestudentsto design and develop solutions for various engineering problems.HoweverMEC 201, CHM 201 T, CHM 201 PandCHM 202 Thave not attained the target level</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Exposureto professional approach in solving complexproblems</li> <li>2. ICT enabled teaching</li> </ol>			
PO4	ConductInvestigations of ComplexProblems		

Criteria 8

PO4	1.27	0.81	TARGETLEVEL NOT ATTAINED Since the syllabus is concentrated more on problem analysis, the classroom sessions helped the students in conducting investigations of complex engineering problems. HoweverHU 101, MEC 201and PHY 101have not attained the target level
Action Taken 1. ICT enabled teaching 2. Expert lectures 3. Conducted Technical events as part ofTechnicalFest &otherprofessionalbody activities			
PO5	Modern Tool Usage		
PO5	1.10	0.72	TARGETLEVEL NOT ATTAINED Exposure to various training sessions boosted the exposure to usage of modern tools in the engineering streams. However MEC 201, IT 101andCHM 201 Phave not attained the target level
Action Taken 1. Demonstration oflatest softwaretools likeCAD 2. Conducted Technical events as part ofTechnicalFest &otherprofessionalbody activities 3. Expert lectures			
PO6	TheEngineerand Society		
PO6	0.86	0.61	TARGETLEVEL NOTATTAINED Seminar on Professional ethics conducted forthe students which trained the students about the duties and responsibilities ofthe students. However CSE 201 has not attained the target level

Criteria 8

<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Conducted Social Service activities as part of NSS</li> <li>2. Expert sessions on Professional Ethics</li> <li>3. Expert sessions on duties and responsibilities of Engineers in the society</li> </ol>			
PO7	Environment and Sustainability		
PO7	0.34	0.34	<p>TARGET LEVEL ATTAINED</p> <p>The sustainable engineering practices were given which enabled the students to learn more about the Environment and sustainability</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Conducted Social Service activities as part of NSS</li> <li>2. Conducted sessions on sustainable engineering</li> </ol>			
PO8	Ethics		
PO8	0.28	0.46	<p>TARGET LEVEL ATTAINED</p> <p>Instructions were given to the student regarding the professional ethics to be followed in the laboratory sessions</p> <p>Students were given training on ethics</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Expert sessions on professional ethics</li> <li>2. Class on engineering ethics to be followed by in streams</li> <li>3. Expert lectures</li> </ol>			
PO9	Individual and Team Work		
PO9	0.36	0.37	<p>TARGET LEVEL ATTAINED</p> <p>Lab sessions were conducted as individual / team work</p>

Criteria 8

<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Conducted teambased social service activities</li> <li>2. ExpertLectures</li> <li>3. Team based problem solvingin laboratorysessions</li> </ol>			
PO10	Communication		
PO10	0.66	0.67	<p>TARGETLEVELATTAINED</p> <p>Students were given trainingon communication skills</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Expert lectureincommunication skills</li> <li>2. Sessions in languagelab</li> <li>3. Competitions based on communications as part ofcultural activities</li> </ol>			
PO11	Project Management andFinance		
PO11	0.57	0.57	<p>TARGETLEVELATTAINED</p> <p>Understanding and demonstrating management principles and applying to own works enable students to get exposed to Project management</p>
<p>Action Taken</p> <ol style="list-style-type: none"> <li>1. Expert lectures</li> <li>2. Class on engineeringethics to befollowed byin streams</li> <li>3. Expert lecturein communication skills</li> </ol>			
PO12	Lifelong Learning		
PO12	0.57	0.64	<p>TARGETLEVELATTAINED</p> <p>Recognize the need for, and have preparation and ability to engage in independent and lifelong learning in various engineering streams</p>

*Criteria 8*

Action Taken

1. Team based problem solving in laboratory sessions
2. Professional Training sessions
3. Expert lectures

*Table B.8.5.2b*

<b>CRITERION 9</b>	<b>Student Support Systems</b>	<b>Max. Marks: 50</b> <b>Claimed: 50</b>
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### 9.1 Mentoring System (5)

A new strategy to access and motivate students has been initiated. All faculty and students of all semesters are divided into mentor-mentee. One faculty will be assigned 10 to 15 students. They would look into assigned student's academic progress, discuss with tutor and other faculty about their behaviour in classroom and should observe any unusual behavioural patterns and incidents.

#### Mentoring at NIT SRINAGAR

- Mentoring of the students is our top priority. Each teacher takes keen interest to mentor students under their charge.
- Student Welfare Cell's members are always available to heed to the problems of the students. Students are always free to approach the teachers for any kind of guidance—personal, professional and so on. Students come with a burden and special endeavours are made to see that they get relieved of the burden.
- The students visit Students Welfare Centre where a lecturer (member of student Welfare) is made available throughout the day. Teachers come to the cell in their free periods. They counsel the students on diverse issues ranging from some personal psychological to social and academic.

A diary shall be maintained for each student where various details like Personal Information, Previous meeting details, Academic Performance, Competitive Examination Details etc. are recorded. The mentors meet the students periodically and monitor their performance and their activities. Guidance regarding the lagging issues is provided. If need be, occasionally a meeting with the parents will be conducted.

- **Professional Guidance:**

The departments are well equipped with knowledgeable human resources in the form of members of faculty who by keeping themselves updated of developments offer guidance to the prospective professionals in addition to the classroom teaching.

- **Career advancement:**

The Training and Placement cell has been active not only in arranging campus recruitment drives, but also offering awareness and training for the students.

- **Coursework:**

Members of faculty handling different courses interact with students in clearing all their Concept-oriented and test based mechanics of the respective courses. The teachers after first formal evaluation guide the students as far as student-specific grey areas are concerned.

- **Lab-specific:**

### *Criteria 9*

Each of the lab sessions are handled by 2 teachers along with 2 to 3 non-teaching staffs, in order to have special care for the students while experiments are being handled. A demonstrative presentation is given by the teacher concerned before every experiment. The Laboratory records are evaluated after the experiment is held. In other words, there is active involvement of the members of faculty in pre-experiment stage, at the time of experiment and after the experiment.

#### **Efficacy of the System:**

- The mentoring system developed by the Institute has been proved to be effective considering different parameters.
- The involvement of students in the academics has increased, like class work attendance, paper presentations, presentation of models in exhibitions, participation in cultural activities etc. Because the number of students allocated to each of the mentor is limited to maximum of 16, personal interaction on regular basis has been possible.

#### **The specific support (or) services/facilities available**

##### ➤ **Support for “Back Loggers”**

Remedial classes have been initiated through a special drive for students with back logs. These classes are engaged by Students of higher semesters with outstanding performance in the given course for the students having backlog in that very particular course.

Slow learners are found out from the analysis of various assessment processes such as class test, continuous assessment test, lab viva session, interaction during the lecture delivery, and in mentoring session etc. These students are asked to discuss with the faculty in person during the extra hours such as Tutorial/Library/seminar hour/ Remedial Classes during evening stay back, in addition to the special classes conducted for those students. Slow learners are also asked to take up the retests for the respective subjects. They are also given special attention by solving the important problems in the form of additional worksheets and assignments.

##### ➤ **Exposures of students to other institution of higher learning /corporate /business house etc.**

The students are exposed to the current trends in the industry by arranging guest lecture from the reputed institution and industries. The students are also encouraged to take up the in plant training in the industry to get the hands on experience about the current technology in the industries. The institute arranges for industrial visits to the students to get first-hand information about the industries and their technologies.

#### **Alumni Connect.**

Alumni of the institute have been involved very actively in the process of Career advancement of the current students. Our Distinguished Alumni have been very proactive and deliver Lectures regarding student requirements of career building. Every month Alumni with varying expertise in industry, academia and successful entrepreneurship achievements are invited to have face to face interaction and deliver lectures related to their specific areas.

#### **Memorandum of Understanding (MOU's)**



### Criteria 9

MOU's with IIT Delhi and IIT Jammu have been signed for facilitating project work, Research and even earning of credits during the stay of the student at these institutes of higher learning. Facilitation of placement to be carried out at these campuses has also been agreed on.

For regular internship/training of students in current niche areas, a MOU has been signed with ALTTC Ghaziabad, a BSNL concern which basically meant for imparting training to ITS candidates.

#### ➤ **Skill development (Spoken English, computer literacy,etc.)**

The language laboratory helps to improve the communication skills of students. The students are encouraged to give seminars to improve their communication and public speaking skills. Skill development is imparted to the students through Training and placement cell as well as Language department. Many activities like soft skills, communication skills, guidelines to access online materials, multimedia based learning, etc. are carried out for the sake of students. This is being upgraded to make it state-of-the art.

<b>Language Laboratory</b>	<b>Space, Number of students</b>	<b>Software used</b>	<b>Type of experiments</b>	<b>Quality of Instruments</b>	<b>Guidance</b>
<b>1</b>	300 Sq.ft. 30/shift	Internet support	Speaking, Listening, Reading	Good	Yes

*Table B.9.1*

#### ➤ **Student's Grievances Redressal**

Grievances should be presented in person and in writing before the Coordinator, HOD or Director. The concerned authority shall make an effort to solve the problem and redress the grievance informally but if he does not succeed in this, a grievance committee shall be formed, the composition of which shall depend on the grievance. The committee shall look in to the grievance objectively and having due regard to the rules and the institutional and academic goals, recommend appropriate action to redress the grievance.

#### **Women Grievance Committee**

Complaints Cum Redressal Committee for women is headed by Prof. Rohie Naaz Mir, HOD CSE department with additional members. If any of the girl students or lady faculty/staff faces a problem related to sexual harassment, they can report to the above committee. We have not received any such complaint for the past few years.

#### ➤ **Anti-Ragging Committee**

Anti-Ragging committee headed by Dean Students Welfare, Wardens and Hostel manager is in place since long. Sign Boards have been put up specifically for this purpose all over the campus with strict warnings of not indulging in any such activity which would be considered as Ragging. Anti-ragging information leaflets are distributed to all first year students on their first day in the Institute. Anti-ragging measures are taken in the Institute campus, hostels and Institute buses.

➤ **Students Welfare / Counselling Centre**

The Institute has a Student's Welfare Committee, constituted by the Director and headed by Dean Students Welfare. This committee has faculty members from other departments as well. This committee is entrusted with the task of looking after the welfare of the students by taking appropriate steps with the concurrence of the Director.

Scholarships are doled out to deserving students from economically challenged background through a committee comprising faculty, staff and students representatives and chaired by Dean Students Welfare.

➤ **Continuing Education Cell**

Continuing Education Cell is headed by Prof. Aijaz A. Mir, of ECE department. Its function is to promote continuing education programmes in the institute. The cell is dedicated entirely to the growth and development of technical education, industry, business and social amelioration.

➤ **Industry – Institute Interaction Cell**

The functions of Industry – Institute Interaction Cell of NIT Srinagar is to create adequate facilities of updating knowledge of professional engineers to meet the growing and developmental needs of the industry and to coordinate the research and developmental activities of the two systems. The cell is headed by Prof. Saad Parvez.

➤ **Centre for Research and Development/Consultancy**

Centre for Research and Development/ Consultancy is formed at NIT Srinagar with the following functions and is headed by Prof. Aijaz Ahmad of EE Deptt.

- Provide technical assistance to industries and user Organizations/Departments
- Promote research and develop appropriate technology
- Promote exchange programmes between industries and the institution
- Support Short-term courses/Seminars/Workshops for effective dissemination of knowledge
- Establish testing/consultancy centres in various fields of engineering
- Extend the necessary assistance to Staff to attend National/International conferences, Seminars, Workshop etc.

➤ **Corporate Social Responsibility:-**

Local Schools have been adopted to bring their students under the direct tutelage of our institute and invite them on occasions so as to instil in them confidence and inspire them with what different branches of engineering mean to the world at large. It gives them an opportunity to visit our labs and to have ample knowledge about engineering as a choice for career. Our faculty and students are invited by these schools to have a strong bond of belonging and Big Brother relation.

*Criteria 9*

**9.2 Feedback analysis and reward/Corrective measure taken, if any (10)**

Feedback mechanism is a well-organized system in the institute. The system of feedback collection is being automated. For each student in a class a new ID is created, by using that the student can log into the feedback marking software without giving their names. Once they logged in to the software, the list of faculties taking courses in that class will be displayed. They can enter their feedback according to a questionnaire. The software will analyse the collected feedback and summary is given to head of department with marks secured. HOD will analyse the feedback of each faculty and will take necessary actions.

**An overview of feedback evaluation for faculty members**

No.	Item	Response
1	Feedback collected for all courses	YES
2	Specify the feedback collection Process	One regular class hour is designated for the purpose.
3	Who collects the feedback	Faculty members in charge of Student feedback
4	When feedback is collected	Around 12 weeks after semester commences
5	Percentage of students Participating	All students
6	Basis of reward / corrective measures	Faculty members who get a feedback below a pre-defined value are forwarded to higher authorities for corrective actions.

**Table B.9.2a**

Criteria 9

Flowchart for feedback analysis process for faculty members

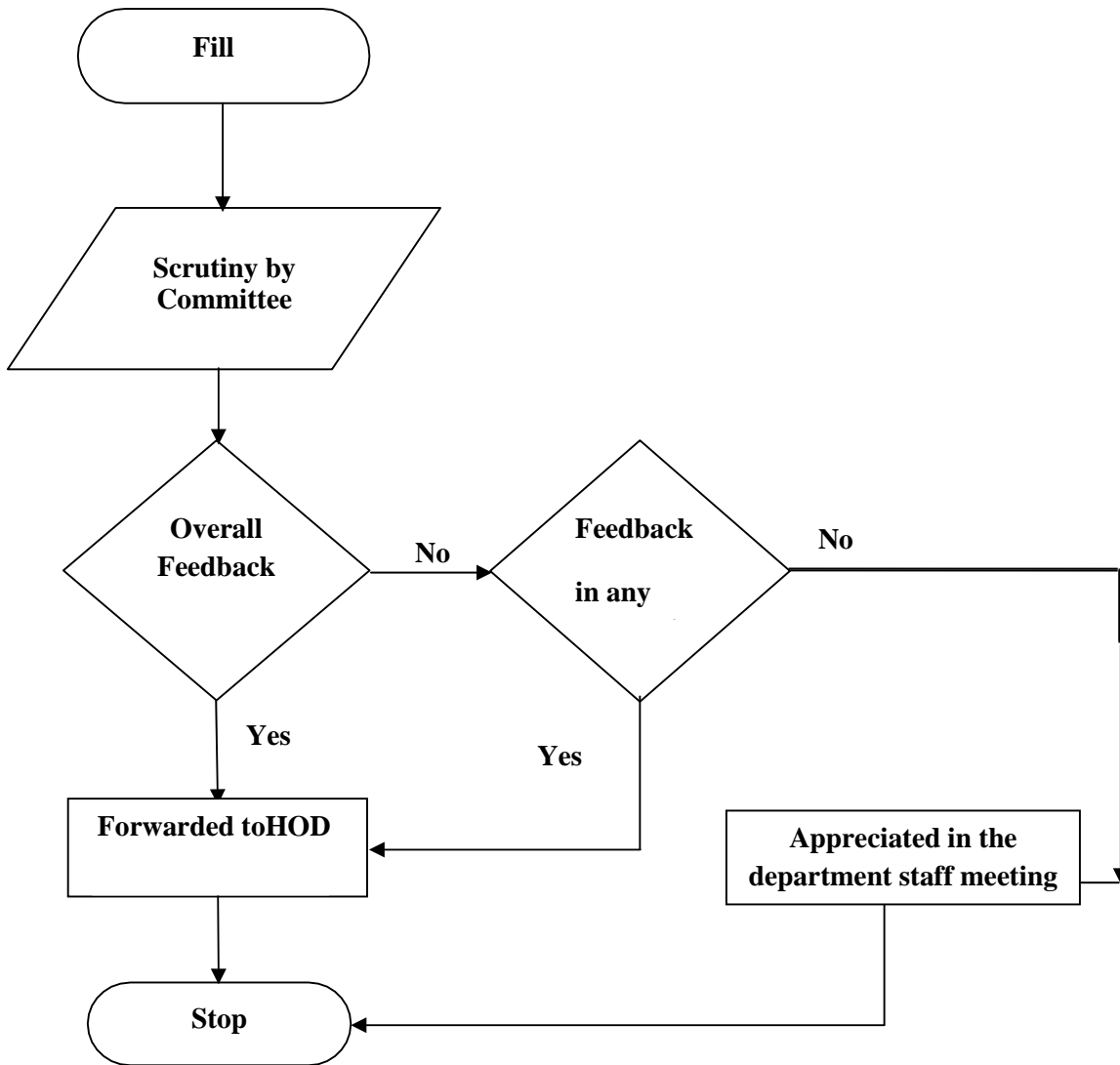
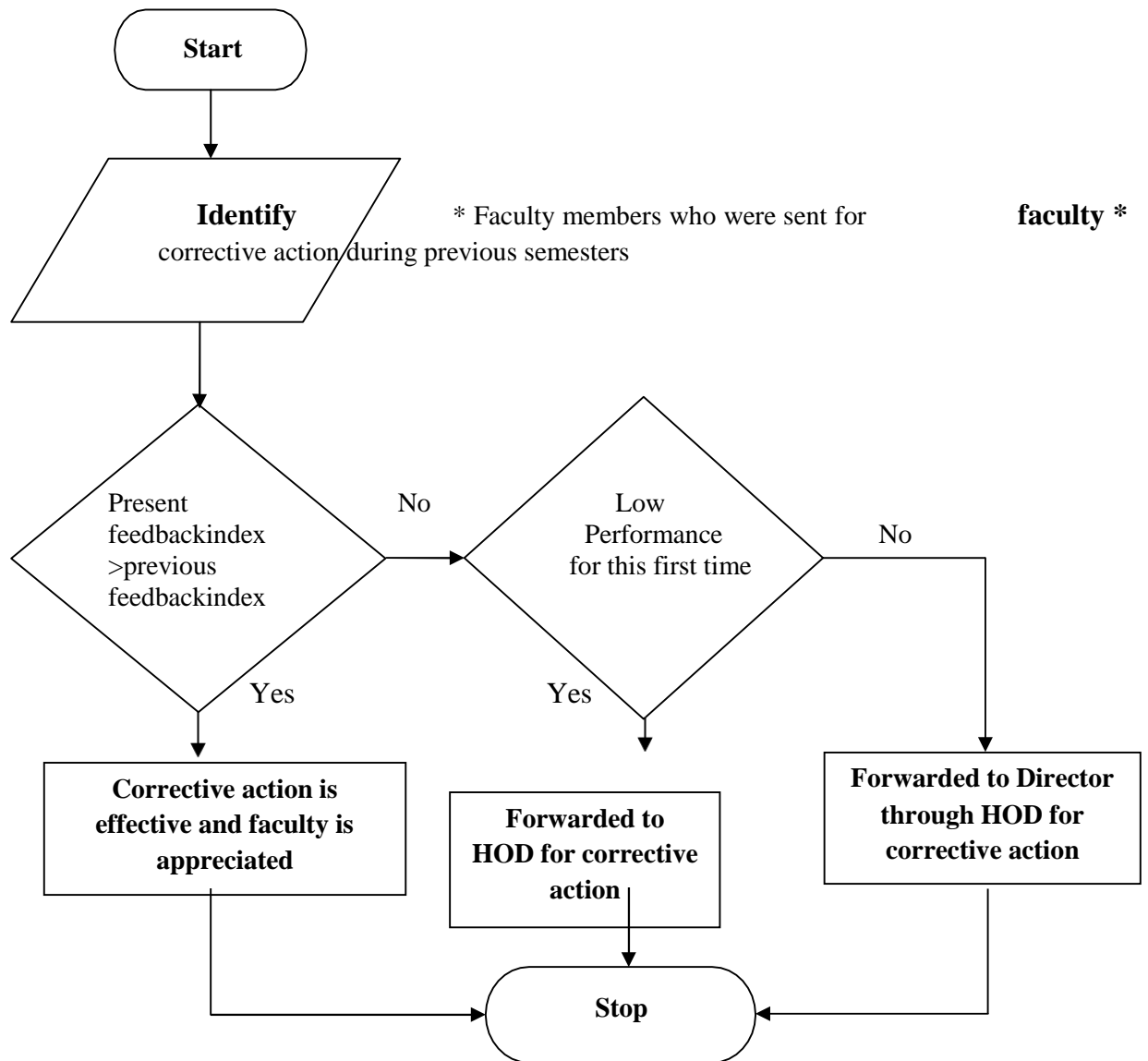


Figure B.9.2a

**Basis of reward / corrective measures, if any:**

Once HOD gets the summary of feedback, HOD analyses the feedback of each faculty and will take necessary actions. The procedure of corrective action is given in the flow chart

**Flowchart for checking effectiveness of corrective action**



**Figure B.9.2b**

Induction programs are conducted for newly joined faculty members and continuing education programme for the experienced faculties. Those teachers who have not obtained good appraisals have a detailed discussion with the HOD on how to improve the teaching. Level of feedback is taken into account while evaluating the staff for promotion.

Also, Class Committee meeting shall be conducted twice in every semester for each class. Committee members includes, Head of the Department, Class Tutor, Two faculty members teaching in the respective class, 2-5 student members from the class. Students are given freedom to raise any kind of issues related to teaching learning process, facilities provided or any other relevant matter.

Criteria 9

**Feedback analysis and reward /corrective measures taken for Hostels and Messes**

The hostel/mess management has taken the following corrective measures:

- 1) Conversion of messes from outsource to in-source. It has been done to provide hygienic and quality food to the resident students.
- 2) Inclusion of student representatives in Mess Management committees for receiving frequent feedback from the respective mess representatives about the quality of food/services being provided in the messes.
- 3) Security personnel’s have been deputed in each block/floor of the hostel to keep 24 x 7 vigil on the students to avoid any untoward incident, ragging etc.
- 4) Engagement of Electricians, Carpenter & Plumber on contractual basis exclusively for hostel maintenance and repairing to redress the student problems without any delay.
- 5) Procurement of electrical/carpentry/plumbing/water purifier items by the management directly for speedy redressal of problems.

**9.3 Feedback on facilities(5)**

**Process of feedback evaluation**

Institute has initiated taking feedback on facilities from the final year students. A feedback on Library facility, Training & Placement facility, Laboratory facility, general facility etc. has taken from students and they are asked to give rating of the same as Excellent, Good, Average. Just like the faculty feedback, facility feedback shall also be automated. By using the feedback, the areas of improvement can be identified.

**Feedback Template**

**Library** [tick mark in the relevant cell]

Questions			
1. How often do you visit the Library	Regularly	Occasionally	Rarely
2. Are the required number of titles in your Subject available in the Library	Excellent	Good	Average
3. Are you satisfied with the cataloguing and arrangement of books in the Library	Excellent	Good	Average
4. Are you satisfied with the available Reading space in the Library	Excellent	Good	Average
5. Are the Library Staff co-operative and Helpful	Excellent	Good	Average

**Table B.9.3a**

Criteria 9

**COMMON COMPUTING CENTER** [tick mark in the relevant cell]

6. Are you able to access Internet Centre as and when you require	Regularly	Occasionally	Rarely
7. Are you making use of educational online Resources	Regularly	Occasionally	Rarely
8. Are there enough number of nodes Available in the Internet Centre	Excellent	Good	Average
9. Are the Net centre staff co-operative and Helpful	Excellent	Good	Average

*Table B.9.3b*

**Training & Placement Cell** [tick mark in the relevant cell]

10. Has the Training & Placement (T & P) Cell provided ample On-campus placement opportunities?	Excellent	Good	Average
11. Has the (T&P) Cell provided sufficient Off -campus placement opportunities?	Excellent	Good	Average
12. Did you ever avail Career counselling and guidance for higher studies from T&P Cell	Excellent	Good	Average
13. If you are invited to deliver A Guest Lecture/A Special Talk/A Motivational Session for your juniors, will you be interested?	Highly Acceptable	Acceptable	Likely
14. Would you like to join the Department/Institute Alumni Association?	Highly Acceptable	Acceptable	Likely

*Table B.9.3c*

**OTHERS** [tick mark in the relevant cell]

15. Are the class rooms clean	Excellent	Good	Average
16. Are the toilets cleaned properly	Excellent	Good	Average

Criteria 9

17. Are you provided with enough drinking Water	Excellent	Good	Average
18. Are you happy with the food served in the present canteen	Excellent	Good	Average
19. Are the activities of the student counselling centre helpful to you	Excellent	Good	Average
20. Do you think that your grievances are addressed effectively and efficiently	Excellent	Good	Average
21. Are you satisfied with the activities of "R&D , NSS, IEEE and other professional bodies" in our Institute	Excellent	Good	Average
22. Are you able to make use of Reprography facility in the Institute	Excellent	Good	Average
23. Are you satisfied with the prevailing scholarship programme of our Institute	Excellent	Good	Average

**Table B.9.3d**

**Feedback on Lab Facilities**

<b>Title of Lab</b>			
What was your batch Size?			
Satisfied with your batch Size?	Excellent	Good	Average
Experiments of Lab Classes conducted as per schedule provided?	Excellent	Good	Average
Equipment's provided sufficient?	Excellent	Good	Average
Equipment's provided in working condition?	Excellent	Good	Average
Lab Consumables provided of Good Quality?	Excellent	Good	Average
No. of experiments conducted as per University Norms?	Excellent	Good	Average
No. of experiments conducted over and Above University Syllabus?	Excellent	Good	Average
Advanced/Design based Experiments carried out in the lab?	Excellent	Good	Average



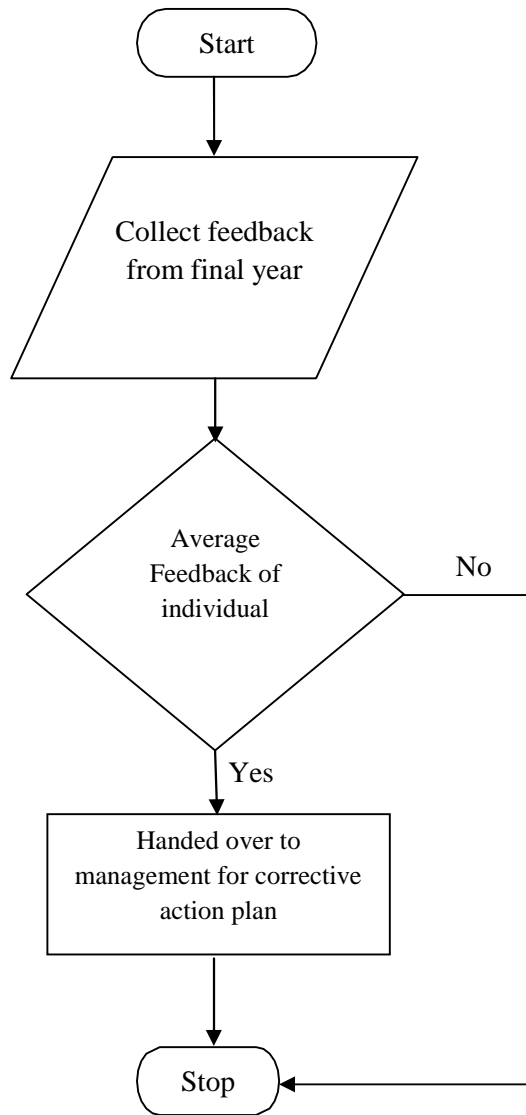
*Criteria 9*

Lab Manual Provided was complete in covering the Syllabus and informative?	Excellent	Good	Average
Lab assistant / technician assisting You	Excellent	Good	Average
Lab in-charges (Faculties) are helpful in Completing the Experiments	Excellent	Good	Average
Opportunity provided to complete experiments partially done Exp. and for day on which students were absent	Excellent	Good	Average

***Table B.9.3e***

The identified weaker areas, with corrective action plan are submitted to the management and the same can be corrected within one academic year and then the feedback is taken from the next final year students.

**Process flowchart for feedback analysis on facilities**



**Figure B.9.3**

**Information regarding feedback on facilities**

The Hostel Management is providing the following facilities to the resident students of the Institute. Upgradation of facilities is in process as well as in pipeline.

S. No.	Particulars	Facilities Provided/Upgraded/In Pipeline
01.	<b>Community Services</b>	<p>Students are being facilitated with funds for community services to induce social fabric &amp; communal harmony in them as under:</p> <ul style="list-style-type: none"> <li>i) Erection of tent in the premises of Hazratbal shrine on the eve of Eid-e-Milad-un-Nabi (Commemoration of birthday of Prophet Muhammad PBUH) and facilitating the devotees with water/juice or even with tea depending upon the season.</li> <li>ii) Erection of tent in the premises of Chatti Padsha on the eve of Guru Gobind Singh's Birthday, Guru Hargobind Singh's Birthday etc. and facilitating the devotees with kheer, sweets etc.</li> <li>iii) Erection of tent in the premises of Kheer Bhawani on the eve of mela to facilitate the devotees with kheer, sweets etc.</li> </ul>
02.	<b>Hostel Facilities</b>	
	i) Water Purifiers	Water Purifiers have been installed in sufficient numbers in each block of the hostel to facilitate the student community with purified water supply.
	ii) Furniture	New furniture is been procured i.e. lockers, beds and tables to facilitate the students with requisite furniture to make their stay in the hostel comfortable.
	iii) Wi-Fi/LAN	Each block/wing of the hostel has been connected with Wi-Fi/LAN.
	iv) Parks and Lawns	Hostel Management has developed & beautified parks and lawns so that students

Criteria 9

		can have leisure during their off time. Furthermore, umbrellas have been installed in the parks to facilitate the student community.
	v) Badminton Court	Badminton court has been constructed in each hostel of the Institute.
<b>03.</b>	<b>Up gradated facility</b>	
	i) Laundry facility	The Hostel Management has procured commercial washing machines to facilitate the student community with washing facility. The facility will be commenced soon.
	ii) Construction of hostels	The Institute has constructed two prefabricated hostels so that occupation of rooms could be minimized to some extent. The hostels will be allotted to the students soon.
	iii) Modernization of Messes	Each mess of the Institute has been modernized with latest kitchen equipments i.e. rice steamers etc.
<b>04.</b>	<b>In Pipeline</b>	
	i) Static Tent Structures	Erection of static tent structures work is in progress for facilitating the students with Guest Lobby, Reading Room, Library, Food Court etc.
	ii) Water Treatment Plant	Construction of mini water treatment plant in the hostel premises.
	iii) Mopping Scooter/Jet Cleaners etc.	Procurement of mopping scooters and latest sanitation equipments to modernize the sanitation services in the Institute as well as in the hostels
	iv) AC	AC's will be installed in each of the hostel.
<b>05.</b>	<b>Financial Assistance</b>	
		The Institute is providing financial assistance to the needy students every year so that they can continue their studies.

**Table B.9.3f**

## **CENTRAL FACILITY**

### **Central Workshop**

- Workshop is Central Facility of the Institute.
- The primary objective of the establishment of Central Workshop is to conduct the classes of one of the main practical oriented course "**Workshop Practice**" to fulfill the basic requirement of B.Tech course.

#### **MAIN OBJECTIVE**

Central Workshop caters to various activities of the Institute which includes:

- Engages the classes of practical oriented course of workshop practice in 1st and 2<sup>nd</sup> semesters for (All) B.Tech courses.
- Provides facility to carry out practical's in various engineering trades to Mechanical and Metallurgical students.
- Plays an important role to design, development and fabrication of project works of the students from various departments of the Institute.
- Project work related activities including fabrication for the M.Tech students and Ph.D Research Scholars of the Institute.

#### **Extension of Workshop facility to other technical institutions in the region.**

The following institutions are benefitted:

- College of Engineering and Technology University of Kashmir, Hazratbal Srinagar
- Government Polytechnic for Women, Bemina Srinagar
- North campus, university of Kashmir Baramulla
- I.T.I Srinagar
- Islamic University Awantipora Kashmir
- Government Engineering College of Technology, Safapora Kashmir

#### **Technical Aid and Fabrication to Industries**

Facilitating the technical aid to the **small scale industries of Kashmir** Province in the shape of fabrication of various types of Tools Dies and Jigs and Fixture and Gears etc.

#### **INFRASTRUCTURE**

Well established Technical Infrastructure is available which includes:

(i) Machine (ii) Equipment (iii) Tools (iv) Technical Manpower

Workshop Practice provides facilities to be students for "hands on" various practical oriented tasks through formal classes /project works. The students are introduced to process, tools and materials for accomplishing various tasks which culminate in final products.

The students are trained to acquire basic knowledge and skills about engineering materials, manufacturing practices, equipment, tools and safety precautions to be observed during manufacturing of different products. The students carry out manual operations using mostly hand tools and elementary machines in the carpentry and pattern making shop, bench work and fitting shop, welding shop, sheet metal shop, black smithy and forging shop, machine shop, foundry and casting shop etc..

The common shops and major facilities in the Central Workshop have been divided into various trades as given below:-

*Criteria 9*

- i. Machine Shop
  - ii. Sheet Metal Shop
  - iii. Bench Work and Fitting Shop
  - iv. Welding Shop
  - v. Foundry and Casting Shop
  - vi. Black Smithy and Forging Shop
  - vii. Carpentry and Pattern making Shop
- Staff associated with Central Workshop

**Office of the Central Workshop**

S. No.	Workshop office Staff
1.	Er. Syed Irshad Ahmad Qadri Officer In-charge Superintendent
2.	Mr. Ghulam Mohammad (Tech Asst)
3.	Mr. Muneer Ahmad (Tech)
4.	Mr. Manzoor Ahmad (Works Asst)

S.No	Workshop Section	Working Equipment/Machine	Employees (Permanent)	Employees Contractual
1.	<b>Machinist Trade</b>	Kirloskar Lathe 8 No's HMT Lathe 4 No's Slotting Machine 1 No's Horizontal Milling 1 No's Vertical Milling 1 No's Shaper 1 No's Grinding Machine 1 No's Tool & Cutter Grinding M/C 1 No's Surface Grinder 1 No's Kirloskar Lathe with tool Dynamometer 1 No's	Firdous Ahmad Wani (Tech. Asst)  Javeed Ahmad Ahangar(Tech.)  Hilal Ahmad Dar(Tech.)  Altaf Ahmad Bhat(Tech.)	Mistry Mohammad Nadeem (Technical Assistant)
2.	<b>Sheet Metal trade</b>	Hand drill 1 No's Sheet bending machine 1 No's Hand shearing machine 1 No's Table shear cutting machine 1 No's Power operated shearing M/C 1 No's Grinding machine 1 No's	Muhammad Shabaan(Tech.)	Ms. Afnan Asad (Technical Assistant).  Abdul Aziz (Helper).
3.	<b>Fitting Trade</b>	Profile Projector 1 No's Drilling Machine 1 No's Arbor Press machine 1 No's	Gh. Qadir(Tech. Asst) Mushtaq Ahmad Shah(Tech.) Mohammad Ramzan(Tech.)	Dawood Ibrahim Ali ( Technical Asstt)
4.	<b>Smithy Trade</b>	Single Beak Anvil 2 No's Open Herth Furnace 4 No's Lever Shear 1 No's	Mohd. Ismail Kumar(Tech. Asst) Bashir AhmadSheikh(Tech.)	Sumeer Kaul (Technical Assistant)
5.	<b>Foundry Trade</b>	None.	Abdul MajeedAhangar (Tech. Asst)	Zahid Shafi (Technical Asstt)

Criteria 9

			Ghulam Rasool Telli (Tech.)	
6.	<b>Welding Trade</b>	MMA (Arc Welding) Machine 1 No's	Zahoor Ahmad (Tech.)  Mohammad ShafiChikla (Tech.)	Mohd. Yousuf (Technical Assistant)
7.	<b>Carpentry</b>	Band Saw 1 No's Thickness Planner 1 No's Tenon Machine 1 No's Grinder 1 No's Thickness Planner 1 No's	Showkat Ahmad(Tech.)  Noor Mohammad(Tech.) Mohd. Yousuf(Tech.)	MuzafarShah (Technical Assistant)

**Transport/Automobile facilities**

The transport wing of the Central Workshop performs the essential service to the Institute. Presently the institute is having the vehicle strength of nine numbers to carry out the various academic activities of students, faculty and other official works of the institute besides to provide the facility of ambulance services round the clock (24 x 7) during the emergency to the students and staff.

The list of the vehicles performing the various activities of the institute is as under:-

S. No	Name of the Vehicle with make	No of Vehicles	Drivers and cleaners in place	
			Permanent	Contractual
01	32 seater Bus (TATA)	02 Nos	Mr B.Bhadhur (Tech. Asst)  Mr Khazir Mohammad (Tech Asst)  Mr Mohd Ayoub (Driver)	Mr Showkat
02	Ambulance (Maruati)	02 Nos		Ahmad (Driver)
03	Staff Car (Ambassador)	01 No		Mr Reyaz Ahmad (Driver)
04	Mini Loader (Truck)	01 No		Mr Shabir Ahmad (Driver)
05	Fortuner Car (Toyota)	01 No		Mr Sheraz Ahmad (Driver)
06	Innova Car (Toyota)	01 No		Mr Mohammad
07	Scorpio Car (Mahindra)	01 No		Yaseen (Conductor)

## MEDICAL FACILITIES

NIT Srinagar has its own dedicated Health centre & multifarious medical needs of the campus population consisting of students, staff members, faculty and members of their families are met by institute hospital. It's equipped with all the basic medical facilities and is functional 24\*7 with referral and ambulance services. Presently health centre is serving the strength of more than 4000 students plus faculty and staff including their wards. It offers free of cost medical facilities. The hospital is headed by the Head Medical Officer with a team of other specialists, paramedical and supporting staff.



## FACILITIES

List of facilities available at NIT Srinagar Health Centre :

- **OPD (ALLOPATHY)**

Patients are registered at the reception and are seen on first come, first serve basis, however out of turn consultation may be provided in case of emergency and senior citizens. Patients have the right to consult any doctor. In OPD, clinical consultation is provided to patients which include history taking, clinical examination, diagnosis and providing prescriptions to patients besides advising laboratory tests in some cases. Medication is provided free of cost to the patients. Sub waiting areas are available in front of individual consultation rooms and laboratory. Public utilities like drinking water and toilet is available. Wheel chairs, trolleys and attendants are there to help very sick patients.





**DENTAL FACILITY**

An experienced dental surgeon along with dental assistant provides procedures like dental extraction, scaling/cleaning, RCT, fillings, local curettage. Dental facility is functional from April 2018.



**COUNSELING SERVICES**

Full time psychological counselor who remains on call 24\*7 is available for providing counseling services to the students, staff and faculty members of the institute. Institute counselor pays regular visits to different hostels for conducting awareness programs like stress management, mental health awareness, positive psychology, psychology of happiness & different breathing exercises.



### **WARD/IPD FACILITY**

Ward facilities for observation and management of medical problems like typhoid, acute gastroenteritis, COPD, bronchial asthma, viral fever, pneumonias etc are available. There is one ward with five beds & one isolation room for patients of communicable diseases who require complete isolation.



### **PHYSIOTHERAPY SERVICES**

Full time well experienced physiotherapist is available 24\*7 to provide range of physiotherapy services and to assist the patients to recover from wide range of musculoskeletal painful disorders, sports injuries, post operative traumas, neurological disorders and all orthopedic disorders. This facility is functional since February 2018. Following facilities will be available shortly after the establishment of physiotherapy unit; TENS, Laser therapy traction unit, Ultrasound, SWD, Muscle stimulation, Interferential therapy, Matrix Therapy Etc.



### LABORATORY SERVICES

Trained laboratory staff is providing best services & the laboratory is functional 24\*7. Painless blood withdrawal & sample collection under all aseptic conditions is done in the laboratory. Following facilities are available;

- CBC
- Lipid profile
- KFT
- LFT
- Uric Acid
- Blood sugar fasting and PP
- HbA1C
- ESR
- CRP, CCP, RF



- Serum LH, FSH, Prolactin, total testosterone
- Thyroid Function Tests
- Vitamin D levels
- HBSAG
- HIV
- HCV
- Vidal for typhoid
- Urine Routine examination

### Criteria 9

- Sample collection time for laboratory is 7am to 10 am while emergency tests like Blood sugar, platelet count, HB and blood grouping is done in emergent cases throughout OPD hours.

#### - X-RAY & ECG SERVICES

X-Ray and ECG services are available on all working days during OPD hours & in case of emergency.

#### - PHARMACY

Free reliable quality medicines are available to beneficiaries on doctor's prescription during OPD and night hours by pharmacists.



#### MINOR OT

Provides services for minor surgical procedures like dressing of lacerated wounds, suturing of minor lacerations and re-suturing, excision of corns and cysts under local anesthesia.



#### AMBULANCE SERVICES

24\*7 patient referral and transport services are available during OPD hours as well as emergencies to the nearest super specialty hospitals.

**Criteria 9  
TIMINGS**

- Registration/OPD timings- On working days 8:45 a.m to 05:15 pm.
- Laboratory series – 24\*7
- Pharmacy – 24\*7
- X-ray & ECG services - 8:45 am to 05:15 pm and during emergency.
- In case of emergency Medical officer, physiotherapist, counselor are available on call 24\*7.

**PEOPLE /STAFF:**

S.NO	NAME OF THE OFFICIAL	DESIGNATION	PHONE NO.
01.	Dr Mehvish Khan	Head (Hospital Services)	7006880314
02.	Dr Mehnaz Rajab	Dental Surgeon	7006563082
03.	Dr Younis	Physiotherapist	9149729529
04.	Mr Mumtaz	Sr. Lab Technician	9906046953
05.	Mr Fairoz Malla	Psy Counselor	9596195546
06.	Mr Lateef	Store Keeper	9149922458
07.	Mr Fayaz Ali	Pharmacist	9796103421
08.	Ms Gincy Paul	Staff Nurse	7780897925
09.	Mr Irfan Sidiqi	X-Ray & ECG Technician	7006428525
10.	Mr Rouf	Pharmacist	7889399568
11.	Mr Waseem Rashid	Lab Assistant	7780923252
12.	Mr Khalid	Pharmacist	9596596880
13.	Mr Nisar	Lab Technician	7006349408
14.	Ms Nazima	Dental Assistant	7006244208
15.	Mr GM Teli	Orderly	8715913281
16.	Mr Bashir Ahmad	Orderly	9796968788
17.	Mr Mushtaq Ahamd	Orderly	9149516758
18.	Mr Showkat	Ambulance Driver	8491967214
19.	Mr Shabir	Ambulance Driver	9622827668

**SPECIAL CAMPS AND PROGRAMS CONDUCTED:-**

- Influenza vaccination (November 2017)
- Blood donation camp (June 2018)
- Mental health Workshop (May 2018)
- Disaster Management Programe (July 2018)
- Bone Mineral Density Camp (June 2018)
- Hemoglobin evaluation drive (June2018).

**9.4 Self-Learning(5)**

The Institute developed an academic system which presents a curriculum which is having flexibility without prejudice to the fundamentals of any subject which are required.

### Criteria 9

#### Facilities given by institution for self-learning

- The curriculum offers courses major project where the topics are self-selected or based on guide suggestion. The component of self-learning is evaluated in these courses.
- Every student has to submit two home assignments in every course which has been evaluated for 10 marks. Some of these tasks are beyond syllabus to encourage outstanding students to develop their self-learning capabilities.
- Some of the tasks in the lab courses are challenge based which has to be solved by the students on their own enhancing their skills.
- The program planned weekly time table and facilities in such a way that the students have space and time to explore and implement their ideas.
- Common Computing Centre with well-equipped and internet facility opened 24X7 for students.
- Digital library is provided in central library where students can access all kinds of E- journals.
- Industrial visits arranged by the Departments.
- Language lab facilities provided – This enables students to prepare to take-up the TOEFL, GRE examinations.
- The Institute encourages the students to attend Industrial training during semester breaks

#### Modes and Modules for self-learning and learning contents beyond syllabus:

##### Seminars

Seminars are taken on the recent research topics. Faculties of various departments can attend these seminars in their respective areas. This enable the faculty to get familiar with the recent researches carried out in various fields.

##### Department Laboratories

The Institute provides well equipped laboratories for the smooth functioning of each department and the details of the same are as follows.

Department	Total No. of Labs	Name of the laboratory	
Chemical	12	1	Fluid Mechanics and Mechanical Operations Laboratory
		2	Mass Transfer Laboratory
		3	Process Dynamics & Control Laboratory
		4	Thermodynamics and Reaction Engineering Laboratory
		5	Heat Transfer Laboratory
		6	Energy Engineering Laboratory
		7	Biochemical Engineering Laboratory
		8	Environment Engineering Laboratory

Criteria 9

		9	Membrane Science and Technology Laboratory
		10	Multiphase System Laboratory
		11	Project Lab
CE	12	1	Fluid mechanics Lab
		2	SOM Lab
		3	Concrete Technology Lab
		4	Pavement Engg. Laboratory
		5	Environmental engineering lab
		6	Structural Analysis Lab
		7	CAD Lab
		8	Traffic Engg. Lab
		9	Survey Lab
		10	Geotechnical Engg. Lab
		11	Engg. Geology lab
		12	Project Lab
ECE	10	1	Communication Systems Laboratory
		2	Microprocessor Laboratory
		3	Digital Electronics Laboratory
		4	Analog Electronics Laboratory
		5	Microwave Engg. Laboratory
		6	Optical Fiber Communication
		7	Electronic Design & Automation Tools -II
		8	VLSI Lab
		9	Network Security Lab
		10	Computational Lab
		11	Project Lab
ME	12	1	Steam lab
		2	Production Technology Lab
		3	Fluid Mechanics Lab
		4	Internal Combustion Engines Lab
		5	Tribology Lab
		6	Heat Transfer Lab
		7	Mechatronics Lab

Criteria 9

		8	Dynamics Lab
		9	CAD Lab
		10	Industrial Engineering Lab
		11	Advanced Strength of Material Lab
		12	Project Lab
EE	12	1	Basic Electrical Engineering Lab
		2	Control Systems Lab
		3	Electrical Measurement Lab
		4	Power Systems Lab
		5	Power Electronics Lab
		6	Electrical Machines Lab
		7	Microprocessor and DSP Lab
		8	Computation Lab
		9	High Voltage Engineering Lab
		10	Virtual Instrumentation Lab
		11	Energy Systems Lab – (For Research Scholars)
		12	Project Lab

**Table B.9.4a**

**LibraryFacility**

The Central Library of National Institute of Technology was established in the year 2001. It is housed in an area of 16400 Sq. ft. spread over two floors and caters to the information needs of the faculty, staff and students. It is fully automated with a rich collection of Books, National and International Journals, Technical and other Magazines, CD ROMs on Engineering, other widely appreciated editions on diverse subjects like Literature, Management, Religion etc. so that the students can evolve into excellent professionals and good cultured human beings. The collection comprises 36186 printed documents such as books, project reports, seminar reports and back volumes of journals and the non-book materials like CD ROMs. This Library follows open access system, Bar code based circulation process and OPAC LiteratureSearch.

The central library currently subscribes to around 106 (128- including MBA) scholarly journals in engineering, science and humanities. This library provides on line access to a large number of full text journal databases from various publishers. These e-journals are accessible on intranet to campus users only. Membership of the library is open to Students, Teachers and Non-Teaching Staff of this Institute. Library membership is free to all faculty, staff and students. Documents are classified according to Dewey Decimal Classification Scheme and catalogued according to Anglo American Cataloguing rules II with local modifications. Dictionary catalogue in card form is maintained for authoronly. The NIT Srinagar Central Library has an excellent collection of



*Criteria 9*

valuable Books, Journals, Technical magazines, News Papers and no-book materials in Engineering and Technology, Science, Humanities and Management. It maintains separate collections of reference books, general books and Engineering and Technology books, bound volumes of journals, reports, CD ROMs.



*Figure B.9.4a*

**a) Books**

Details of books in the Central library are as shown below.

<b>SECTION</b>	<b>DEPARTMENT</b>	<b>NO. OF VOLUMES</b>	<b>NO. OF TITLES</b>
<b>CENTRAL LIBRARY</b>	Civil	2300	552
	Mechanical	3943	1202
	Chemical	1762	221
	Electrical	4203	1052
	Electronics	7037	920
	Computer Science	7207	1384
	Information Technology	3993	928
	Science	1813	461
General	1335	1025	

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	Management	559	164
	<b>TOTAL</b>	<b>34152</b>	<b>7909</b>
	MBA	5572	2678
<b>TOTAL</b>		<b>39724</b>	<b>10587</b>

*Table B.9.4b*

**b) DigitalLibrary**

The reading area in the library has been Wi-Fi enabled to provide wireless access to the Internet. Users are welcome to use their laptops in the library. 60 PC head phones are meant for users to access databases, e-books, e-journals and other e-resources. One printer is for taking printouts from the e-resources.

**c) E-Resources**

The library provides IP enabled access to a large number of full texts on line journal databases from the various publishers.

1. **IEEE(ASPP)**
2. **ASME**
3. **ASCE**
4. **Springer**
5. **DELNET (Developing LibraryNetwork)**
6. **National DigitalLibrary**

And also provides free online journals relating to engineering and other subjects through directory of open access journals (DOAJ).

**d) Journals**

The Library receives 106 Printed Journals, Technical Magazines, News Papers and the library provides IP enabled access to a large number of full texts on line journal databases from the various publishers.

The details of International and National Journals, Periodicals & Dailies for the Institute are as follows.

<b>Department</b>	<b>Journal Type</b>	<b>name of International/ National Journals</b>
CE	National/ International	1. Indian Concrete Journal
		2. Journal of Structural Engineering
		3. Journal of the Institution of Engineers Series A (Civil, Architectural, Environmental & Agricultural Engineering)

Criteria 9

		4. International Journal of Sustainable Civil Engineering
		5. International Journal of Geotechnics and Environment
		6. Journal of Urban Planning and Development
		7. Journal of Environmental Science Research International
		8. Journal of Flood Engineering
		9. ICI Journal
		10. Indian Journal of Microbiology
		11. Indian Geotechnical Journal
		12. International journal of civil Engineering
		13. ACI Structural Journal
		14. ACI Materials Journal
		15. Water and Energy International
		1. International Journal of Computer and Internet Security
		2. International Journal of Multimedia, Computer Vision and Machine Learning
		3. International Journal of Neural Networks and Applications
		4. International Journal of Real-Time Systems
		5. International Journal of Computer Science and Information Engineering

Criteria 9

CSE	National/ International	6. International Journal of Data Warehousing		
		7. Journal of Digital Information Management (+on line)		
		8. International Journal of Computational intelligence Research and Application		
		9. Journal of Intellectual Property Rights		
		10. International Journal of Computing and Application		
		11. Journal of Advanced Research in Computer Engineering		
		12. International Journal Of Artificial Intelligence And Computational Research (IJICR)		
		13. International Journal Of Bioinformatics And Soft Computing (IJBSC)		
		14. International Journal Of Computer ScienceAnd Communication		
		15. International Journal Of ComputerMathematical Sciences And Applications		
		16 International Journal Of Grid Computing And Multi Agent Systems (GCMAS)		
		17. Journal of Cybernetics and Systems		
		18. International Journal of Computer Engineering and Software Technology		
		19. International Journal of Network Security & Research		
		20. International Journal of Wireless Sensors, Networks and Applications		
				1. Indian Journal of Electronic and Electrical Engineering

Criteria 9

ECE	National/ International	2. Advances in Wireless and Mobile Communication
		3. Journal of Microwaves, Science and Technology
		4. Journal of Wavelet Theory and Applications
		5. Advances in Electronic and Electrical Engineering
		6. International Journal of Electronics
		7. Indian Journal of Electronics, Circuits and Systems
		8. International Journal of Mobile Communication and Networking
		9. Indian Journal of Wireless Networks and Communication
		10. SADHANA: Academy Proceedings Engineering Science
		11. International Electronics Engineering
		12. International Journal of Material Research, Electronics And Electrical Systems
		13. International Journal Of Power Engineering(IJPE)
		14. International Journal of Analog circuits, VLSI and Bioelectronics
		15. International Journal of Embedded Software and open Source Systems
		16. International Journal Of Electronics, Computing And Engineering Education
		17. International Journal of Advances in VLSI Design

Criteria 9

		18. International Journal of Wireless Networks and Communication
		19. International Journal of Electronics and communication engineering
		20. International Journal of Wireless Communication and Simulation
ME	National/ International	1. Journal of Scientific and Industrial Research
		2. Indian Journal of Engineering and Materials Science
		3. Journal of the Institution of Engineers series C (Mechanical, Aerospace, Production, Marine Engineering)
		4. International Journal Of Advances In Thermal Sciences And Engineering
		5. International Journal Of Advances In Mechanical Engineering
		6. International Journal Of Fluid Mechanics
		7. International Journal Of Manufacturing Technology And Industrial Engineering
		8. International Journal Of Material Science And Engineering
		9. International Journal Of Mechanical Engineering
		10. International Journal of Nanoscience, Nanoengineering And Nano Technology
		11. International Journal Of Aerospace And Electronics Systems
		12. International Journal of Machine Intelligence & Applications
		13. International Journal of Manufacturing Science & Technology
		14. International Journal of Nanomaterial & Technology

Criteria 9

		15. International Journal of Production & Quality Engineering
		16. International Journal of Production Technology & Management Research
		17. International Journal of Advances in Mechatronics and Robotics
		18. International Journal of Advanced Mechanical Engineering
		19. International Journal of Advances in Machining and Forming Operations
		20. International Journal of Advanced Manufacturing System
IT	National/ International	1. International Journal of System Simulation
		2. International Journal of Computer, Information Technology & Engineering
		3. Journal of Non Linear Analysis & Applied Mathematics
		4. International Journal of computer Science and system Analysis
		5. International Journal of Advance in Information Technology.
		6. International Journal of Intelligent Information Processing.
		7. Journal of High Performance Communication Systems and Networking.
		8. Journal of Image Processing & Applications
		9. International Journal of Neural Systems Theory and Applications
		1. Indian Journal of Power and River Valley Development
		2. The Journal of CPRI

Criteria 9

EEE	National/ International	3. IEEMA Journal		
		4. Journal of the Institution of Engineers series B (Electrical, Electronics, & Telecommunication & Computer Engineering)		
		5. Indian Journal of Electrical Engineering & Computer Engineering		
		6. Indian Journal of Systems Engineering & Electronics		
		7. Indian Journal of Advances in Electrical Engineering		
		8. Indian Journal of Electrical Engineering & Modern Technology		
		9. Journal of Energy Storage & Conversion		
		10. International Journal of Electronic and Electrical Engineering		
		11. International Journal of Electrical Engineering and Embedded Systems		
		12. International Journal Of Power System Optimization		
		13. International Journal Of Control Theory And Applications (IJCTA)		
		14. International Journal of Power System and Power Electronics Engineering		
		15. International Journal of Industrial Electronics and Control		
		Chemical	National/ International	1. Journal of Membrane Science
				2. Desalination
3. Applied Clay Science				
4. Journal of the European Ceramic Society				
5. Ceramics International				
6. Journal of Food Engineering				
7. International Journal of Hydrogen Energy				
8. Solid State Ionics				



Criteria 9

		9. Filtration + Separation
		10. Applied Surface Science
		11. Separation and Purification Technology
		12. Journal of Catalysis
		13. Chemical Engineering Research and Design
		14. The Chemical Engineering Journal
		15. Heliyon
		16. Biomass and Bioenergy
		17. The Chemical Engineering Journal and the Biochemical Engineering Journal
		18. Chinese Journal of Catalysis
		19. International Journal of Heat and Fluid Flow
		20. International Journal of Heat and Mass Transfer
		21. International Journal of Multiphase Flow
		22. Journal of Bioscience and Bioengineering
		23. Journal of Chemical Health and Safe
		24. Journal of the Chinese Institute of Chemical Engineers
		25. Journal of Environmental Chemical Engineering
		26. Journal of Hazardous Materials
		27. Journal of Loss Prevention in the Process Industries
		28. Journal of Safety Research
		29. Journal of the Taiwan Institute of Chemical Engineers
		30. South African Journal of Chemical Engineering
		31. Journal of Water Process Engineering
		32. Journal of Saudi Chemical Society
		33. The Journal of Supercritical Fluids
		34. Journal of Process Control
		35. Journal of Non-Newtonian Fluid Mechanics
		36. Journal of Biotechnology
		37. Chinese Journal of Chemical Engineering
		38. Applied Thermal Engineering
		39. Gas Separation & Purification

*Table B.9.4c*

## Criteria 9

The catalogue of Books/CDs/ journals etc. is available online and LAN. Visiting our URL one can access the catalogue sitting at home through internet.

The features of web OPAC are:-

- Search facility: By specifying author, Title, subject, year of publication or any other relevant field.
- Status of the book: Whether the book is available or issued.
- Number of copies available in library.
- Due dates for borrowed books,

### **NPTEL**

The National Programme on Technology Enhanced Learning (NPTEL), a project funded by MHRD, provides e-learning through online web and video courses in engineering, Sciences, Technology, Management and Humanities. This is a joint initiative by seven IITs and IISC Bangalore. Other selected premier institutions also act as Associate Partner Institutions.

### **Industrial Visits**

All the departments of the institution provide facilities for industrial visit. The students identify reputed industries from their discipline and are approved by the Director through the head of the department. The prior permission is obtained from the industry to visit it. The students are accompanied by minimum of two faculty members. During the curriculum two one day visits and a 3 to 5 days visit are organized.

## **9.5 Career Guidance, Training, Placement(10)**

The objective of the placement cell is to mould the students to cope with the changing demands of the corporate world and place them in reputed companies based on the expected job profiles of each student

### **Placement Activities:**

The Placement and Training cell monitors the employment opportunities, cater to enhance employability of students and arrange on and off campus interviews. Our Campus recruitment program starts right from the penultimate semester. It's a policy of the Placement Cell not to patronize companies bend on doing Education & Training activities to attract the students in the name of recruitment against payment

The placement cell does not encourage the students, those who are placed through campus selection in a company to attend the further campus interviews so as to provide a chance for other students to get placed. The students aspiring for higher studies are encouraged to undergo GATE/CAT exams.

### **Functioning of placement cell**

National Institute of Technology, Srinagar (NIT Srinagar) lays emphasis on the placement of the students by training and preparing the students to face the real life situation after graduation. An

### Criteria 9

exclusive Placement & Training cell under the guidance of an eminent professor collects the data of the graduating students and maintains a comprehensive database for ready reference.

The Institute provides an environment for comprehensive and harmonious development of the personality. We have regular communicative English Program incorporated in the curriculum. Further, resource persons and professionals from the field of communication and interpersonal skills are invited to equip our students with necessary soft skills required to face the interviews in today's competitive world. Such training exposure enhances the students' employability. Goal setting Time Management and Prioritization are the Key points that are implanted in the Youngminds.

Institute also provide need-based programs on softwares relevant to industry such as VLSI, Embedded Technology, Auto/Electrical CAD, Pro/E, JAVA, J2 EE, just to mention a few.

### Placement Details

Academic Year	Branch	Batch Size	Placement	Higher Studies	Placement Percentage
<b>CURRENT ACADEMIC YEAR (2017-18)</b>	CS	59	41	-	69.49
	EC	73	32	-	43.83
	ME	76	27	-	35.52
	CIVIL	118	31	-	26.27
	IT	56	38	-	67.85
	CHEM	64	7	-	1.09
	METTA	65	14	-	21.53
	EEE	73	27	-	36.98
<b>CURRENT ACADEMIC YEAR (2016-17)</b>	CS	56	22	6	39.28
	EC	69	42	8	60.86
	ME	71	42	13	59.15
	CIVIL	101	4	2	3.9
	IT	46	22	0	47.82
	METTA	54	9	-	1.66
	CHEM	51	5	-	0.9
	EEE	60	22	4	36.66
<b>CAYm1 (2015-16)</b>	Avg. Placement 4.95 lpa				

Table B.9.5a

## List of companies visited the campus

SL.NO	Name of Company
<b>ACADEMIC YEAR (2017-18)</b>	
1	Grey B
2	Tek Systems
3	Envestnet Yodlee
4	Wipro
5	Johnson Controls
6	Virtusa
7	Persistent Systems
8	IBM
9	L&T Infotech
10	Adverb
11	Resonance
12	Vedanta
13	Tata Motors
14	Cummins
15	Reliance JIO
16	L&T Construction
17	IOCL
18	Infosys
19	Blogvault
20	Adobe
21	Sheroes
22	Nucleus Software
23	LG soft
24	Rankwatch
25	Samsung R&D
26	ZS Associates
27	Tata Projects
28	Tata Power
29	KPIT
30	JCB

Criteria 9

31	OIL India
32	Sagacious Research
33	Afcon Infrastructure
34	KEC
35	GAIL
36	HPCL
37	Idea Board

**Table B.9.5b**

<b>Sl.No</b>	<b>Name of Company</b>
<b>Academic Year (2016-17)</b>	
1	Vedanta
2	Bharat Aluminium Company
3	Grey-B
4	Afcons Infrastructure
5	Career Point
6	Avanti Private Limited
7	Raspitech
8	Allen
9	Sagacious Research
10	IOCL
11	Accenture
12	Infosys
13	Capgemini
14	Intellect Design
15	Sapient
16	Sprinklr
17	Maruti Suzuki
18	HPCL
19	Tata Motors
20	Ashoka Leyland
21	Gravita India
22	SKF Bearings
23	Shaljon Technologies

Criteria 9

24	Intellect Design Arena Pvt Ltd
25	CDK Global
26	TEK Systems
27	Indian Seamless Metal Tubes
28	Jindal Steel
29	Gravita
30	PGCIL

<b>Sl.No</b>	<b>Name of Company</b>
<b>Academic Year (2015-16)</b>	
1	Alstom Transport
2	BCloud
3	FCS Teksystem
4	Grey B
5	Infogain
6	Infosys
7	Intellect Design Arena Pvt Ltd
8	Maruti Suzuki
9	MU Sigma
10	SKF Bearings
11	TCS
12	Tata Motors
13	Valforma
14	Yodlee
15	Samsung R&D
16	Sterlite
17	SAP Labs
18	Blue Star
19	Sagacious Research
20	Aakash Institute
21	DESL
22	ABB

*Criteria 9*

23	Fiat Chrysler Automobiles
24	Pompeii Connect
25	Power Grid Corp.

**Table B.9.5c**

**Activities from Student Welfare Cell for Career Guidance and Counselling**

Career Guidance and Counselling is a comprehensive, developmental program designed to assist students in making and implementing informed educational and occupational choices. Career guidance and counselling program develops an individual's competencies in self-knowledge, educational and occupational exploration, and career planning.

**Objectives**

- To create awareness among the students for their future profession.
- To provide guidance to the students on various options available in the courses of their study
- To provide information to the students on the scope and relevance of any area irrespective of their field of interest.
- To provide guidance to develop positive attitude and behaviour in order to meet challenges of life to make it healthier.

Resource persons from different fields deliver talks about career options to students and teachers and staff of the Institute through guidance and career counselling seminars and workshops.

Activities of student Welfare Cell include Career Guidance and Counselling. The faculty also participates in personal counselling:

- To help students to chalk out academic roadmaps for themselves.
- To enable students to integrate themselves with their milieu.
- To acquaint them with various career options through seminars.
- To address problems related to stress, anxiety, examination phobia, peer pressure and adjustment to changed environment.
- To help students, Periodic reports are shared with parents whenever necessary. Aptitude tests have been carried out to see the inclination of the students. Students were made to undergo this test and they had much to avail themselves of it.

**Effective services for career guidance including counselling for higher studies**

**Training details for students**

### Criteria 9

Sl. No	Course/Activity	Status of the Course	Source of the Resources
1	Technical English & Communication skills	Curricular	In house
2	Professional Ethics	Curricular	In house
3	Aptitude	Co-academic	Both internal and external
4	Campus Recruitment Training	Co-academic	Both internal and external
5	Workshops	Co-academic	External
6	Event specific Programmes like GATE coaching	Co-academic	In house

**Table B.9.5d**

#### **Provisions for improving Placements:**

- Offering more elective subjects in order to offer a wider perspective for the students to choose from. On other hand, the students would get an opportunity to have exposure to the emerging technologies.
- Some of the students may even come to a clear understanding that such sub- areas exist in their area of activity such they would visualize their career in those areas.
- Projects are introduced in order encourage positive compartmentalization of learning and to offer simulated industrial operations.
- In addition to the above, teachers offer counselling individually or in small groups.
- Separate Placement & Training Cell is maintained.

Coordinators from various streams are appointed to assist and supervise relations with various industries.

#### **Industrial Training**

The fundamental objective of Industrial Training is to prepare students for future employment in their chosen engineering discipline. Industrial Training enhances the academic material studied at University by allowing students to practice what they have learned and to develop key professional attributes. Industrial training should provide an opportunity for students to:

- Experience the discipline of working in a professional engineering organization
- Develop understanding of the functioning and organization of a business
- Interact with other professional and non-professional groups
- Apply engineering methods such as design and problem solving
- Develop technical, interpersonal and communication skills; both oral and written Industrial training also gives employers an opportunity to assess future employees. A demonstrated commitment and ability to take responsibility, make sound decisions, and apply technical skills



### *Criteria 9*

will be highly regarded. Industrial training gives students an opportunity to evaluate future employers as well as enabling informed decisions about the discipline and career paths to follow.

### **Training & Placement Officer**

Prof. A.A. Mir

Professor I/C

Training & Placement Department

NIT Srinagar

Mobile: 9419091127

Email-id: aamir@nitsri.ac.in;

[placements@nitsri.ac.in](mailto:placements@nitsri.ac.in)

### **Infrastructure and Facilities available in the placement cell:**

- Number of interview rooms: 2
- Number of GD rooms: 1
- Number of chambers for HR personnel: 2
- Number of guest rooms for HR personnel: 6

### **Members of Placement Cell:**

- Full-time Officers: 1 (1 TPO )
- Full-time Trainers: 2 (Soft skills & Personality Development)
- Student Volunteers attached to placement cell: 32

## **9.6 Entrepreneurship Cell(5)**

### **Innovation and Entrepreneurship Development Cell**

An Entrepreneurship Cell is headed by Prof. Saad Parvez. Its duty is to "develop institutional mechanism to create entrepreneurial culture in academic institutions to foster growth of innovation and entrepreneurship amongst the faculty and students.

### **Benefits**

1. Become a leader- manage a student organization, illustrate abilities in planning, logistics, marketing, and advertising, create visibility for future employers.

### Criteria 9

2. Build a network- make contacts with entrepreneurs, professionals and academics who can help with recommendations, network and start a venture withpeers.
3. Initiate innovative activities- invite business leaders to campus, plan new and exciting events for students to kick-start learning about new industries and different aspects of businessplanning.

### Functions of the Entrepreneurship Cell:

- To inculcate a culture of innovation driven entrepreneurship through studentprojects.
- To organize Entrepreneurship Awareness Camps, Entrepreneurship Development Programmes, Faculty Development Programmes and Skill Development Programmes in theInstitute/institution.
- To arrange interaction with entrepreneurs and create a mentorship scheme for student entrepreneurs.
- To facilitate creation of entrepreneur's club in each department to foster culture of entrepreneurship amongststudents
- To disseminate knowledge and insights in entrepreneurial theory and practice through lectures activities andworkshops.
- Build knowledge and skills to translate ideas into opportunities while they are on campus.
- Be motivated to start their own companies after graduation or after a few years of gaining industryexperience.
- Be inspired to consider entrepreneurship as a possible careeroption

## Innovation, Incubation and Entrepreneurship Development Centre Year 2017

### List of activities undertaken by IIED centre during year 2017

Sl. No.	Date	Name of Event	Organized By	No. of Attendee	Co-ordinator/s faculty/students
01	April 3, 2017	Seminar on “Emerging trends in Android based mobile app”	Mr. Abhishek Kumar, Senior Corporate Technical Trainer (IBM Experts)	118	HEAD, IIED Centre
02	April 15-16, 2017	Two day’s workshop on Robotics	Utkranti, eDC Team, IIT Delhi	78	HEAD, IIED Centre
03	April 29-30, 2017	Two day’s Workshop on “PLC & SCADA”	CETPA Infotech. Pvt. Ltd.	63	Vaibhav Mishra Shrishti Hooda Suryansh Mishra

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04	May 6-7, 2017	Two day's workshop cum National Championship on Internet of things	TechieNest Pvt. Ltd. And IIT Hyderabad	82	HEAD, IIED Centre
05	June 10, 2017	Interaction session with Kashmir's Entrepreneurs	Founder of KashBook, Co-Founder of Captivating Kashmir and INSPIRE award winner Zufa Iqbal	97	Rahul Kumar Shriyansh
06	Sep 6-7, 2017	"Youth Entrepreneurship in conflict areas" Symposium in Srinagar, J&K	CHINAR International in association with South Asia Network of Impact Masters and IIED Centre, NIT Srinagar	27	HEAD, IIED Centre
07	Oct 2, 2017 (MEGA EVENT)	IDEA CHALLENGE 2017 – "The Future World"	IIED Centre	1000+	IIEDC Team 9with prize money worth 30,000 distributed to winners)
08	Oct 2, 2017	Swachh Bharat Abhiyan	Srinagar Municipal Corporation	43	Shriyansh
09	Oct 2, 2017	Orientation Session of Batch 2016 & Batch 2017	IIED Centre	600+	IIEDC Team
10	Oct 5, 2017	Orientation program of "The Better You"	STARTUP KASHMIR	134	Abhishek Gourav Rahul Kumar Shriyansh
11	Oct 29, 2017	One day seminar on "Importance of international certification in Design,	CETPA Infotech. Pvt. Ltd.	540+	Shriyansh Rahul Kumar

### Criteria 9

		Automation and IT industries”			
12	Nov 2, 2017	Interaction Session with “Prof. Anil Kumar Gupta”, Founder of Honey Bee Network.	Central University of Kashmir	18	Rahul Kumar
13	Nov 9, 2017	Catalysing a cultural shift in youth entrepreneurship	EDP Cell on National Entrepreneurship Day	88	Nishant Sharma Manik Lamba

**Table B.9.6**

14. Apart from the above the IIED centre is working for establishment of state of the art Incubation centre for which DPR is being prepared with help of consultants.

15. Successfully handed over an innovative project titled as "Value addition in a room warmer, Bukhari" to NIF which was commercialised and handed over to a local firm for production.

16. Presently the centre is working to design and develop a walnut hulling machine, another NIF project.

### **THE CONCEPT OF IDEA BANK**

**Given by IIED Centre and is being implemented in different schools and institutions of the valley**

**5-3-2016**

A bank is a facility where people invest their money to get higher value of their investments. The banking process is interrelated to the general economic system of a nation. Billions of people invest in different schemes to obtain benefit in different ways. Innovation involves improving the way of producing goods or services. Often it involves creating better or efficient technology or a value addition in a product, process, procedure or method. Innovation may be the result of Research & Development. But innovation could also be a ‘brainwave’ – A Eureka moment where someone has a good idea to improve working practices. Idea generation is the creative process used in order to figure out solutions to difficult challenges. Idea generation is a natural process which flashes in the mind and is generated through some mechanism. This mechanism could be a long continuous effort towards solving a problem. It could also be a whim, contemplation, intuition, or a perception which may arise because of knowledge, experience or a hunch. Every individual in his life generate ideas to resolve a problem, or feels that his idea if applied or processed might provide a solution, when known solutions are unavailable. His idea may or may not mature or may vanish from his mind. Converting ideas into accomplishments is a tedious process and requires application of certain resources, knowledge and processes. There are many situations in which some brilliant idea which might have made a difference, fade and vanish away because of lack of right approach in protecting and storing it. Idea bank is a concept which

### Criteria 9

provides a platform where ideas of individuals are deposited and stored. The processing of these ideas can be carried in incubation centres nearest to such banks leading to its logical conclusion. It is a structured methodology which can help individuals to process their idea to obtain solution for their problem. The banks initially collect ideas. These ideas are taken to second phase where they are further filtered and relevant ideas are allowed to enter the next stage. In the third stage, the relevant experts process these ideas and add value to it. This stage may define the material requirements, technology to be used, bill of materials, drawing, processes, methods etc., whatever is relevant for the idea. This is the major stage which enables to develop a prototype or defines a new process or method.

Idea banks need to be established in:

1. Primary and secondary level Schools.
2. All other educational institutions including Institutes, universities, technical and non-technical institutions, training centres industries, service and manufacturing units.

Idea banks need to coordinate at different levels to share and develop ideas, mechanism of which could be developed.

### Invitation Lecture By An Eminent Professor

Date: **20-05-2016**

Professor K.L. Chopra, eminent Scientist, academician and ex- Director IIT Kharagpur, visited NIT Srinagar and delivered an expert lecture on the topic, "**NURTURING INNOVATION & ENTREPRENEURSHIP IN ACADEMIA**" on **24<sup>th</sup> May, 2016 (Tuesday) at 4.00 p.m.**, in the institutes HI-TECH room.

The lecture was very informative and thought provoking and was appreciated by one and all.

### 9.7 Co-curricular and Extra-curricular Activities(10)

(The institution may specify the Co-curricular and extra-curricular activities) (Quantify activities such as NCC, NSS etc.)

- Students are encouraged to participate in extracurricular activities.
- Music and Hobbies clubs are functioning very effectively.
- All the departments have their own technical societies which organise technical seminars, quizzes and other competitions in the departments to give a thrust to the development of academic potential of the students.
- NSS units have also been rendering valuable service by inculcating the habits of social and national responsibilities amongst the students.
- A technical fest called 'Techvaganza' is conducted every year.

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- Our students participate in the cultural activities outside the campus also.

**9.7.1 Sports and games facilities**

Adequate provisions for extra-curricular activities are available in the institute. At present, facilities are available for Badminton, Volley-Ball, Football, Cricket, Basketball, Kho-Kho, Kabaddi, Athletics and other indoor games.

Details of faculty/ staff in charge for sports and games

Name	Designation	Department
Dr. S.K. Bukhari	Associate Dean	Physical Education
Ms. K. A. Mir	SAS Officer	Physical Education

*Table B.9.7.1a*

Faculty profile for Physical Education

1. Name: Dr. S.K. Bukhari

Email: kaiser@gmail.com

2. Name: Ms. K. A. Mir

E-mail: kowsaralimir@gmail.com

Designation: SAS Officer

**Inter-Semester Sports Meet:** The Institute organizes the Bi-annual sports meet in every academic year, known as Inter-Semester Sports Meet. Inter-Semester Sports Meet provides an excellent platform for the students to exhibit their sports and game capabilities. Various events like



### Criteria 9

Badminton, Volley-Ball, Football, Cricket, Basketball, Kho-Kho, Kabaddi, Chess, Carrom, Hockey, Table tennis and Athletics 100 meter, 200 meter 400 meter, 800 meter race, high jump, long jump, shot put, etc. are conducted.

**Figure B.9.7.1**

### Sports and games facilities

Sl.No	Name of the Event	Area	Mode of Game
1	Table Tennis	8 standard tables	Indoor
2	Basketball	38 m x 18m(2)	Outdoor
3	Volley ball	40 m x 25 m (3)	Outdoor
4	Carom	game boards (10)	Indoor
5	Badminton courts	7 courts	Outdoor
6	Football	110 m x 70 m	Outdoor
7	Chess	game boards (20)	Indoor
8	Gymnasium (Boys)	25 m x 15 m (Fitness Equipments )	Indoor
9	Gymnasium (Girls)	13 m x 7 m	Indoor
10	Cricket	Hard Pitch	Outdoor

**Table B.9.7.1b**

### Sports Events Conducted/ participated/ in and outside NIT Srinagar from 1<sup>st</sup> January 2015 upto 31<sup>st</sup> April 2018

S.No.	Sports Event/s	Place and month where played/ conducted	Prizes/ Awards/ Positions
1.	All India Inter NIT Athletics (Boys/Girls) at NIT Rourkela	NIT Rourkela January 2015	Participation
2.	All India Inter NIT Cricket (Boys) at NIT Allahabad	NIT Allahabad February 2015	Participation
3.	All India Inter NIT Football (Boys) at NIT Warangal	NIT Warangal February 2015	Participation
4.	Inter-Semester Tournament in all Games (Boys & Girls) Spring	NIT Srinagar (April 2015)	All Semesters
5.	International Yoga Day	NIT Srinagar	All students of the

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	(Boys and Girls)	(June 2015)	Institute
6.	Tri-series of Cosco cricket tournament with SSM Collage Srinagar	SSM Institute July	Won by NIT Srinagar
7.	Tri-series of Basketball tournament with SSM Collage Srinagar	SSM Institute August	Runner up
8.	State Football Tournament (Boys)	SRTC Srinagar (June 2015)	4 <sup>th</sup> place
9.	Inter-Semester Tournament in all Games (Boys & Girls) Autumn	NIT Srinagar (September 2015)	All Semesters
10.	All India Inter NIT Kho-Kho and Kabaddi (Boys/Girls) at NIT Rourkela	NIT Rourkela January 2016	Participation
11.	All India Inter NIT Athletic (Boys/Girls) at NIT Jaipur	NIT Jaipur February 2016	2 <sup>nd</sup> in long jump and 3 <sup>rd</sup> in triple jump
12.	All India Inter NIT Cricket (Boys) at NIT Calicut	NIT Calicut March 2016	Participation
13.	Inter-Semester Tournament in all Games (Boys & Girls) Spring	NIT Srinagar (September 2016)	
14.	Inter NIT/ IIT Tournament Hockey (Boys)	IIT Roorkee (April 2016)	3 <sup>rd</sup> place
15.	Open Tournament in all Games (Boys & Girls)	NIT Srinagar (April 2016)	
16.	State Football Tournament (Boys)	SRTC Srinagar (May 2016)	3 <sup>rd</sup> place
17.	Tri-series of cricket tournament with GMC Srinagar	NIT Srinagar 2016	Won by NIT Srinagar
18.	Tri-series of cricket T20 tournament with SSM Collage Srinagar	NIT Srinagar 2016	Won by NIT Srinagar
19.	Cricket Match between Alumni and Faculty of the Institute on the Eve of Alumni Day	NIT Srinagar (May 2016)	Won by Alumni
20.	Cricket Tournament with Government Dental Institute Srinagar	NIT Srinagar (June 2016)	Won by NIT Srinagar
21.	Karwan-i-Aman Cricket Tournament conducted by Sashashtra Seema Bal (SSB 47 <sup>th</sup> Batallion)	NIT Srinagar (June 2016)	Runner up
22.	International Yoga Day (Boys and Girls)	NIT Srinagar (June 2016)	Participation by all students
23.	National Workshop on Physical Education for all NITs	NIT Transit House Delhi (August 2016)	Sports Fraternity from all NITs participated
24.	Rashtriya Ekta Saptah	NIT Srinagar (November 2016)	All the students of NIT Participated



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25.	Observance of Fundamental Duties Day	NIT Srinagar (November 2016)	All the students of NIT Participated
26.	Open State Basketball Championship	Indoor Games Stadium (November – December 2016)	Runner up
27.	Inter-Semester Tournament in all Games (Boys & Girls)Autumn	NIT Srinagar (April 2016)	All the students of NIT Participated
28.	All India Inter NIT Cricket(Boys)/ Swimming (Boys & Girls) Tournaments	NIT Rourkela (January 2017)	5 <sup>th</sup> place in Cricket
29.	Coaching Camp for Boys & Girls in Chess & Table Tennis	NIT Srinagar (March 2017)	All the students of NIT Participated
30.	All India Inter NIT Table tennis(Boys/Girls) and Chess (Boys & Girls) Tournaments at NIT Srinagar	NIT Srinagar (April 2017)	Winner T.T (boys) Chess Runner up (girls) And T.T (girls) 2 <sup>nd</sup> runner up
31.	IST State Championship of Cricket (Boys), Football (Boys) and Basketball (Boys).	Jammu University (April 2017)	Runner up Basketball 4 <sup>th</sup> place in cricket
32.	Summer State Basketball League.	Indoor Stadium 2017	Runner up
33.	Inter-Semester Spring Tournament in all Games (Boys & Girls)	NIT Srinagar ( May 2017)	All the students of NIT Participated
34.	Yoga day	NIT Srinagar ( June 2017)	All the students of NIT Participated
35.	Open Badminton Tournament (Boys)	NIT Srinagar ( August-September 2017)	All the students of NIT Participated
36.	Inter-Semester Autumn Tournament in all Games (Boys & Girls)	NIT Srinagar ( September 2017)	All the students of NIT Participated
37.	Club Activities	NIT Srinagar ( September 2017)	All the students of NIT Participated
38.	Rashtriya Ekta Diwas	NIT Srinagar ( October 2017)	All the students of NIT Participated
39.	Open ( Tennis Ball Cricket/Cosco Cricket Tournament	NIT Srinagar (October 2017)	All the students of NIT Participated
40.	Cricket Tournament with Government Dental Institute Srinagar	NIT Srinagar (November 2017)	Winner
41.	All India Inter NIT Kabaddi (Boys)	NIT Surathkal (January 2018)	Participation
42.	All India Inter NIT Badminton (Boys/Girls) and Basketball (Boys) Tournaments at NIT Warangal	NIT Warangal (January 2018)	4 <sup>th</sup> place in basketball 5 <sup>th</sup> place in badminton

*Criteria 9*

43.	2nd State Championship of Cricket (Boys), Football (Boys) Badminton (Boys) and Table tennis (Boys).	Jammu University (April 2018)	Winner in Table tennis 3 <sup>rd</sup> place in badminton 3 <sup>rd</sup> place in cricket
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*Table B.9.7.1c***Additional Student Activities Held During the Past Three Years**

S. No.	Particulars	Year
01.	Debate on the verdict of Salman Khan's hit and run case	2015-2016
02.	Vigilance Awareness Week	
03.	Kavi Samelan	
04.	Traffic Management	
05.	Haemoglobin Derive for females	
06.	Techvaganza	
07.	Mental Health Day	
08.	Yoga Day	
09.	Cleanliness Drive (Swachh Bharat Abhiyan)	
10.	Alumni Meet	
11.	Fresher's Day/Orientation Programme	
12.	Farewell	2017-2018
13.	Induction Programme	
14.	Stress Management	
15.	Passport Mela	
16.	Musical Concert (Ustad Kamal Sabri)	2017-2018

*Table B.9.7.1d*

<b>CRITERION 10</b>	<b>Faculty/non-teaching Recruitment Rules</b>	<b>Max. Marks: 50</b> <b>Claimed: 50</b>
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## **10.1 Organization, Governance and Transparency (55)**

### **10.1.1**

#### **A. Availability of the Vision & Vision statement of the Institute:**

•

##### **VISION OF NIT SRINAGAR**

To establish a unique identity of a pioneer technical Institute for NIT Srinagar by developing a high quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region in particular keeping in view global challenges.

##### • **MISSION OF NIT SRINAGAR**

- (1) The broad mission of NIT Srinagar is to create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture with international standards.
- (2) Technically educated and broadly talented engineers, future innovators and entrepreneurs, graduate with understanding the needs and the problems of the industry, the society, the state, and the nation.
- (3) We promise to inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineers.

#### **B. Appropriateness / Relevance of the Statements**

The National Institute of Technology Srinagar has been established with a prime motive to produce skilled human resource who will act as nation builders. In NIT Srinagar students from all over the country take admissions and leave the institution as technically educated and talented manpower and get absorbed in different fields throughout the world. The Vision and Mission of the Institute is fully in consonance to work and in imparting the education to the students.

### **10.1.2 Availability of Institutional Strategic Plan and its Effective Implementation and Monitoring (25)**

The institute has prepared Vision Document for 15 years upto 2025. The said document is placed as **Annexure-1**.

### **10.1.3 Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies (10)**

**A. Board of Governors:**

<i>Chairman</i>	Nominated under Section 17(15) of the First Statutes of NIT Act 2007	Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
<i>Ex-Officio</i>	Nomination under Section 11 of NIT Act, 2007 (29 of 2007) Clause (b)	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
<i>Two persons not below the rank of the Joint Secretary to the Government of India to be nominated by the Central Government from amongst persons dealing with technical education and finance</i>	(c)	Joint Secretary (NITs & DL), Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi
	(c)	Smt. Darshana Momaya Dabral, Joint Secretary & FA, Ministry of Human Resource Development, Department of Secondary & Higher, Government of India, New Delhi.
<i>Two persons to be nominated by the Government of the State in which the Institute is situated, from amongst persons, who, in the opinion of that Government, are technologists or industrialists of repute</i>	(d)	Commissioner Secretary, Higher & Technical Education Dept., Government of Jammu and Kashmir, Civil Secretariat, Srinagar / Jammu.
	(d)	Mr. Sheikh Zubair Aslam, Hassan Sons Group, Srinagar Kashmir
<i>Two persons, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, engineering or science to be nominated by the Council</i>	(e)	Dr. Prema Ramchandran, Director, Nutrition Foundation of India, Delhi
	(e)	Awaited
<i>One Professor and one Assistant Professor or a Lecturer of the Institute to be nominated by the Senate</i>	(f)	Prof. Rajinder Ambardar, Metallurgical & Materials Engineering Department, National Institute of Technology Srinagar.
	(f)	Dr. Mohammad Hanief, Assistant Professor, Mechanical Engineering Department, NIT Srinagar
<i>Member-Secretary</i>	Section 18 Clause (2)	Dr. Nisar Ahmad Mir, Registrar, NIT, Srinagar.

**Table B.10.1.3a****Finance Committee:**

<i>Chairman</i>		Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
<i>Members:</i> Two persons nominated by the Central Government	1	Mr. S. P. Goyal, Joint Secretary (NITs & DL), Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi
	2	Smt. Darshana Momaya Dabral, Joint Secretary & FA, Ministry of Human Resource Development, Department of Secondary & Higher, Government of India, New Delhi.
Two persons nominated by the BOG from amongst its members	1	Prof. Rajinder Ambardar, Metallurgical & Materials Engineering Department, National Institute of Technology Srinagar.
	2	--
Director (Ex-officio)		Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
Member Secretary (Ex-officio)		Dr. Nisar Ahmad Mir, Registrar,NIT, Srinagar.

**Table B.10.1.3b****Senate:**

<i>Chairman</i>		Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
Three persons, one of whom shall be a women, not being employees of the Institute to be nominated by chairperson in the consultation with the Director, from amongst educationists of repute, one each from the field of science, engineering and humanities	1	FILED OF HUMANITIES: Prof. Mehraj-ud-Din, Vice-Chancellor, Central University of Kashmir, Srinagar (J&K)

Criterion 10

	2	FIELD OF ENGINEERING: Prof. A. K. Jain, Professor, Civil Engineering, Indian Institute of Technology, Hauz Khas, New Delhi
	3	FIELD OF SCIENCE: Prof. Azra Nahid Kamili, Dean Biological Sciences & HOD, Environmental Sciences, University of Kashmir
		Mr. Rajesh Uppal, Executive Director IT & CIO, Information Technology Division, Maruti Suzuki India Ltd., Palam Gurgaon Road, Gurgaon-122015 (Haryana) E mail: Rajesh.Uppal@maruti.co.in
<i>The Professors appointed or recognized as such by the Institute for the purpose of imparting instructions in the Institute.</i>	1	All Professors
Such other members of the staff as may be laid down in the Statutes	1	All Dean, HODs, Associate Deans, Controller of Examination, Coordinator 1 <sup>st</sup> & 2 <sup>nd</sup> Semester, Chairman Library Committee, Librarian and DPE.
Secretary		Dr. Nisar Ahmad Mir, Registrar, NIT, Srinagar

**Table B.10.1.3c**

**Building and Works Committee**

Chairman		Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
<u>Members:</u> Nominated by MHRD and IFD New Delhi	1	Director OR Deputy Secretary (NITs), MHRD, Department of Secondary & Higher Education, Government of India, New Delhi – 110 001.

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	2	Representative of * Integrated Finance Division (IFD)
One person nominated by the Board of Governors		Syed Shuja Hussain, Former Chief Engineer (Civil) PWD J&K Government R/O:Al-Manzir, Rajbagh, Srinagar
Dean, Planning & Development		Prof. Javed Ahmad Bhat, Civil Engineering Department, NIT Srinagar
Nominee of the CPWD / State PWD	1  2  3  4  5	Mr. N. K. Bansal Superintendent Engineer (Civil), CPWD, Chandigarh.  Dr. B. A. Mir, Associate Dean, P&D, NIT Srinagar  Shri Rajiv Sao, Superintendent Engineer, CPWD Chandigarh  Executive Engineer (Civil), CPWD, Srinagar.  Er. Muneeb Ahmad, Executive Engineer, Electric Division 4th Srinagar.
Secretary		Dr. Nisar Ahmad Mir, Registrar, NIT, Srinagar.

*Table B.10.1.3d*

**Function and Responsibilities of key Bodies:**

The functions of key bodies are depicted in table below:

<b>Bodies</b>	<b>Functions and Responsibilities</b>
<b>Board of Governors</b>	<ul style="list-style-type: none"> <li>• the Board shall be responsible for the general superintendence, direction and control of the affairs of the Institute</li> <li>• take decision on questions of policy relating to the administration and working of the Institute</li> <li>• institute courses of study at the Institute</li> <li>• make statutes</li> </ul>

	<ul style="list-style-type: none"> <li>• institute and appoint persons to academic as well as other posts in the Institute</li> <li>• consider and modify or cancel ordinances</li> <li>• consider and pass resolutions on the annual report, the annual accounts and the budget estimates of the Institute for the next financial year as it thinks fit and submit them to the Council together with a statement of its development plans</li> <li>• exercise such other powers and perform such other duties as may be conferred or imposed upon it by this act or the statutes</li> <li>• the Board shall have the power to appoint such committees, as it considers necessary for the exercise of its powers and the performance of its duties under this Act.</li> </ul>
<p><b>Finance Committee</b></p>	<ul style="list-style-type: none"> <li>• examine and scrutinize the annual budget of the Institute prepared by the Director and make recommendations to the Board and</li> <li>• give its views and make its recommendations on any financial proposals or issues affecting the Institute to the Board either on the initiative of the Board or of the Director or on its own motion</li> </ul>
<p><b>Building and Works Committee</b></p>	<ul style="list-style-type: none"> <li>• the Building and Works Committee shall under the directions of the Board shall carry on construction of all major works after the necessary administrative approval and expenditure sanction from the Board.</li> <li>• have the power to give the necessary administrative approval and expenditure sanction for minor works and works pertaining to repair and maintenance, within the approved budgetary provision of the Institute and the Board will define the minor work and minor repair and maintenance in terms of quantum or expenditure</li> <li>• cause to prepare estimates of cost of buildings and other capital works, minor works, repairs, maintenance and the like. the Building and Works Committee shall approve the cost estimates for minor works, minor repairs and maintenance</li> <li>• be responsible for making technical scrutiny of the design, estimates and specifications of the material as may be considered necessary</li> <li>• be responsible for enlistment of suitable contractors and acceptance of tenders and shall have the power to give directions for departmental works where necessary duly recommended by the Dean (P&amp;D) of</li> </ul>



	<p>the Institute</p> <ul style="list-style-type: none"> <li>• have the power to settle rates not covered by tender and settle claims and disputes with contractors</li> <li>• in the opinion of the Chairman of the Building and Works Committee, any emergency has arisen which requires immediate action to be taken; he shall take such action and report the same to the Building and Works Committee and the Board at their next meeting.</li> <li>• Shall also perform such function and exercise such powers as may be entrusted by the board from time to time.</li> </ul>
<p><b>Senate</b></p>	<ul style="list-style-type: none"> <li>• frame and revise curricula and syllabi for the courses of studies for the various Departments and Centres</li> <li>• make arrangements for the conduct of examinations, appointment of examiners, moderators, tabulators and other matters relating to the examinations</li> <li>• declare the results of the examinations or to appoint committees or Officers to do so and to make recommendations to the Board regarding conferment or grant of degrees, diplomas and other academic distinctions or titles</li> <li>• appoint Advisory Committees or Expert Committees or both for the Departments or Centres of the Institute to make recommendations on academic matters connected with the working of the Departments or Centres</li> <li>• appoint Committees from amongst the members of the Senate, other Teachers of the Institute an experts from outside to advise on such specific and important academic matters as may be referred to any such committee by the Senate</li> <li>• consider the recommendations of the Advisory Committees attached to various Departments or Centres and that of Expert and other Committees and take such action (including the making of recommendations to the Board) as warranted by each case</li> <li>• make periodical review of the activities of the Departments or Centres and take appropriate action (including the making of recommendations to the Board)</li> <li>• supervise the working of the Library of the Institute</li> <li>• promote research and academic development or</li> </ul>

Criterion 10

	<p>activity within the Institute and seek reports on such research or academic development or activity from the persons engaged therein</p> <ul style="list-style-type: none"> <li>• provide for the inspection of the class rooms, laboratories, library and the Residential Hostels</li> <li>• plan co-curricular activities of the students of the Institute</li> <li>• award stipends, scholarships, medals and prizes and make other awards in accordance with such conditions as may be attached to the awards</li> <li>• make recommendations to the Board to disseminate knowledge through distance learning mode to various parts of the State or country or abroad and in the cases of signing of agreement with the foreign agency, agreement may be signed with approval of the ministry</li> <li>• make recommendations to the Board to disseminate knowledge through distance learning mode to various parts of the State or country or abroad and</li> <li>• Invite up to two student representatives during discussion of general nature not involving policy or disciplinary matter in the Senate meetings.</li> </ul>
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*Table B.10.1.3e*

**Frequency, participations details of external members and attendance of Board of Governors, Finance Committee, Building and Works Committee and Senate:**

Sl. No.	Date of meetings	Academic Year	No. of participants (external members)	Total No. of participants
<b>Board of Governors:</b>				
1	14-03-2018	2017-18	02	06
2	21-11-2017	2017-18	03	07
3	19-06-2017	2017-18	03	07
4	13-10-2016	2016-17	03	08
5	04-10-2016	2016-17	05	10
6	03-06-2016	2016-17	01	06

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7	11-04-2016	2016-17	03	08
<b>Finance Committee:</b>				
1	14-03-2018	2017-18	02	05
2	21-11-2017	2017-18	02	05
3	04-10-2016	2016-17	02	05
4	11-04-2016	2016-17	03	07
<b>Building and Works Committee:</b>				
1	01-11-2017	2017-18	05	10
2	03-10-2016	2016-17	04	07
3	01-09-2016	2016-17	04	08
4	22-04-2016	2016-17	04	08
<b>Senate:</b>				
1	27-12-2017	2017-18	01	42
2	31-12-2016	2016-17	03	42
3	08-04-2016	2016-17	01	42

*Table B.10.1.f*

**B.The published service rules, policies and procedures with year of publication**

**Service Rules**

The Institute follows the Central Government Service Rules approved by the Ministry of Human Resource Development for both Faculty and Non faculty and as amended from time to time.

The Copies of Service Rules **are enclosed.**

- I. Faculty Recruitment Rules. – **Annexure-2**
- II. Non-Teaching Recruitment Rules - **Annexure-3**

**C. Minutes of the meetings and action taken reports:**

**Minutes of the Meetings:**

**Minutes of the 96<sup>th</sup> meeting of Board of Governors  
National Institute of Technology Srinagar, Hazratbal, J&K**

Held on March 14, 2018 at 12.00 p.m. at NIT Transit House, Safdarjung Enclave,  
New Delhi.

BOG/2018/96/01	To confirm the minutes of the 95 <sup>th</sup> Board of Governors Meeting of the Institute held on 21 <sup>st</sup> November, 2017 in NIT Transit House, at Safdarjung Enclave, New Delhi.
Resolution No. 01/96	Confirmed.
BOG/2018/96/02	To record action taken report on the decisions of 95 <sup>th</sup> Board of Governors Meeting held on 21-11-2017 in the NIT Transit House, Safdarjung Enclave, New Delhi.
Resolution No. 02/96	Report recorded. However in respect of resolution No. 12/95 & 13/95, it was desired that the MHRD may expedite the matter.
BOG/2018/96/03	To ratify the action taken by the Chairman BOG in having approved the foreign visits of faculty members of the Institute under CPDA.
Resolution No. 03/96	Ratified.
BOG/2018/96/04	To ratify the action taken by the Director in the capacity of Chairman BOG for implementation of 7 <sup>th</sup> Pay Commission in favour of Non-Faculty positions.
Resolution No. 04/96	Ratified.
BOG/2018/96/05	To ratify the action taken by Chairman BOG for renewing the recognition of Alumni Association NIT, Srinagar.
Resolution No. 05/96	Ratified.
BOG/2018/96/06	To ratify the action taken by Chairman BOG for reorganization of Alumni Association NIT, Srinagar (Delhi Chapter).
Resolution No. 06/96	Ratified.
BOG/2018/96/07	To ratify the action taken by Chairman BOG for signing MoU with IIT

Criterion 10

	Jammu and IIT Delhi by NIT Srinagar.
Resolution No. 07/96	Ratified.
BOG/2018/96/08	To ratify the action taken by the Director in capacity of Chairman BOG in having approved the engagement of Temporary Faculty for the Academic Spring Session 2018.
Resolution No. 08/96	Ratified.  Further, BOG ordered that Institute should fill up permanent faculty at the earliest and temporary faculty together with permanent faculty should not exceed the sanctioned strength.
BOG/2018/96/09	To consider signing of MOU between NIT Srinagar and Department of Higher Education, MHRD, New Delhi, in pursuance of the rule 229 (xi) of the GFR, 2017, and as per the Instruction of MHRD.
Resolution No. 09/96	BOG considered signing of MOU between NIT Srinagar and Department of Higher Education, MHRD, New Delhi.
BOG/2018/96/10	To authorize the Chairman BOG/Director of NIT, Srinagar to grant approvals for new development projects and purchase of laboratory equipments under Financing from Higher Education Funding Agency (HEFA).
Resolution No. 10/96	BOG considered the recommendations of the FC that the ongoing development projects which are under completion be now projected under HEFA for meeting out the deficient funds. A DPR of these projects be prepared and submitted to MHRD for approval before the Institute applies for loan under HEFA. Further, FC was appraised that such projects stand considered and approved in previous FC and BOG meetings. No new projects are taken up without the prior approval of the competent authority.
BOG/2018/96/11	To consider the remuneration / sitting fee in favour of all the members of FC/BWC/BOG for attending the meetings.
Resolution No. 11/96	BOG desired that this is already approved in the NIT ACT and the Institute should proceed accordingly.
BOG/2018/96/12	To consider the recommendation of Deans/HODs/in capping the expenditure limit for procurement of consumables, payment for testing the materials.

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Resolution No. 12/96	<p>Matter considered. However, the expenditure is exclusively recommended for B. Tech. final year students for under taking the UG projects. Post Graduate projects and Ph.D. research related expenditure is also allowed subject to the following ceiling:</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Classifications of Students</th> <th>Amount limit</th> </tr> </thead> <tbody> <tr> <td>01.</td> <td>Under Graduate Students</td> <td>Rs.3000/- Per student. (one time final year students)</td> </tr> <tr> <td>02.</td> <td>Post Graduate Students</td> <td>Rs.10,000/- Per student. (one time)</td> </tr> <tr> <td>03.</td> <td>Ph.D Students</td> <td>Rs.20,000/- per Student per annum</td> </tr> </tbody> </table>	S.No	Classifications of Students	Amount limit	01.	Under Graduate Students	Rs.3000/- Per student. (one time final year students)	02.	Post Graduate Students	Rs.10,000/- Per student. (one time)	03.	Ph.D Students	Rs.20,000/- per Student per annum
S.No	Classifications of Students	Amount limit											
01.	Under Graduate Students	Rs.3000/- Per student. (one time final year students)											
02.	Post Graduate Students	Rs.10,000/- Per student. (one time)											
03.	Ph.D Students	Rs.20,000/- per Student per annum											
BOG/2018/96/13	To ratify the action taken by the Director in having advertised the vacant faculty positions on regular basis and to consider nomination of experts.												
Resolution No. 13/96	Ratified. Further Institute should fill up permanent faculty at the earliest possible												
BOG/2018/96/14	To consider the recommendations of Deans Committee for revision of consultancy rules of NIT, Srinagar.												
Resolution No. 14/96	Proposal to be placed in the next BOG meeting.												
BOG/2018/96/15	To consider the budget allocations of 2018-19 for NIT Srinagar.												
Resolution No. 15/96	BOG considered the recommendations of the FC that the ongoing development projects which are under completion be now projected under HEFA for deficient funds. A DPR of these projects be prepared and submitted to MHRD for approval before the Institute applies for loan under HEFA. Further, FC was appraised that such projects stand considered and approved in previous FC and BOG meetings. No new projects be taken up without the prior approval of the competent authority.												

**Table B.10.1.3g**

**Minutes of the 95<sup>th</sup> meeting of Board of Governors  
National Institute of Technology Srinagar, Hazratbal, J&K**

held on November 21, 2017 at 02.00 p.m. at NIT Transit House, Safdarjung Enclave, New Delhi .

BOG-95/01	To confirm the minutes of the 94 <sup>th</sup> Board of Governors meeting of the Institute, held on June 19 <sup>th</sup> , 2017 in NIT Transit House, at Safdarjung Enclave, New Delhi.
Resolution No. 01/95	Minutes Confirmed with the change that the words, 'so called' be replaced by 'as reported' in the twelfth line of the Resolution No. 05/94 of BOG-94/05. This change was sought to be made by the Chairman in view of the sentiments expressed by the then I/C Director, Prof. A. R. Dar in one of his communications.  While confirming the minutes, the BOG was informed that with regard to Resolution No. 04/94 of BOG-94/04 the issues have been, by and large, addressed by the Revised final modified RRs and the recommendations of the Anomaly Committee.
BOG-95/02	To record action taken report on the decisions of 93 <sup>rd</sup> Board of Governors meeting, held on October 04, 2016 and Adjourned meeting on October 13, 2016 at NIT Transit House, Safdarjung Enclave, New Delhi.
Resolution No. 02/95	Report Recorded.
BOG-95/03	To ratify the action taken by the Chairman, BOG in having approved enhancement of wages as per the Labour Schedule of Government of India in favour of Contractual workers engaged on compassionate basis.
Resolution No. 03/95	Ratified.
BOG-95/04	To ratify the action taken by the Chairman, BOG in having approved extension of cut-off date for usage of CPDA of Block 2014-17 by faculty members upto 31-03-2018.
Resolution No. 04/95	Ratified.
BOG-95/05	To consider the recommendations of the Central Purchase Committee with regard to releasing of remaining 30% payment in favour of M/S New Hi-Tech Enterprises, Srinagar against supply of gold medals for convocation 2013, held for the batches from 2004-2011.
Resolution No.	The BOG advised to refer the matter for legal opinion and take a decision

Criterion 10

05/95	accordingly.
BOG-95/06	Adoption of communications of Vigilance Section of Department of Higher Education, MHRD, received by the Institute.
Resolution No. 06/95	Adopted
BOG-95/07	To consider the minutes of 8 <sup>th</sup> , 9 <sup>th</sup> and 10 <sup>th</sup> meetings of NIT Council held on 25-09-2014, 01-10-2015 and 26-05-2017 respectively.
Resolution No. 07/95	Report Recorded. The minutes of 10 <sup>th</sup> meeting of NIT Council was tabled in the meeting.
BOG-95/08	To adopt amendments in the First Statutes of the National Institutes of Technology (NITs).
Resolution No. 08/95	Adopted
BOG-95/09	To adopt the recommendations of the Anomaly Committee on new Recruitment Rules for Faculty in NITs and IEST regarding promotion of existing Assistant Professors to Associate Professors and mapping of existing Associate Professors with AGP of Rs.9,000/- to Rs. 9,500/- and Professors with AGP of Rs. 10,000/- to Rs.10,500/- communicated vide F. No. 33-9/2011-TS.III, dated 6 <sup>th</sup> October, 2017 and F. No. 33-9/2011-TS.III, dated 17 <sup>th</sup> November, 2017
Resolution No. 09/95	Adopted. The communication vide F.No. 33-9/2011-TS.III, dated 17 <sup>th</sup> November, 2017 was tabled in the meeting.
BOG-95/10	To consider the recommendations of the Finance Committee made at its meeting held on 04-10-2016 at 10.30 a.m. at NIT Transit House, Safdarjung Enclave, New Delhi.
Resolution No. 10/95	The recommendations of the Finance Committee are Approved
BOG-95/11	To approve the recommendations of the Selection Committee for appointment of Registrar for NIT Srinagar.
Resolution No. 11/95	The recommendations of the Selection Committee for selection of Registrar for NIT Srinagar are Accepted and Approved. The offer letter may first be issued to the incumbent at S.No. 1, i.e., Dr. Nisar Ahmad Mir, at the earliest as per the recommendations of the Selection Committee. The necessary contract may be signed with the selected candidate.



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BOG-95/12	To consider the request of existing Assistant Professors for promotion as Associate Professors as and when they complete their Ph.D.
Resolution No. 12/95	It was noted that all the above faculty members have teaching experience of more than 09 years and are already pursuing their Ph.D. programme. The BOG was of the view that the faculty members are getting covered for upgradations under the recommendations of the Anomaly Committee on new Recruitment Rules communicated vide F. No. 33-9/2011-TS.III, dated 6 <sup>th</sup> October, 2017, as a one-time measure. However, it was decided to get a clarification from MHRD to this effect.
BOG-95/13	To approve for correcting and re-fixing the dates of eligibility of some of the Faculty members of NIT Srinagar.
Resolution No. 13/95	<p>It was decided to bring the new revealed facts before the Board of Governors for allowing to carry out necessary exercise for implementing the selection committee recommendations, under rules, with regard to all cases in order to give effect to upgradations from the dates of eligibility</p> <p>Accordingly the item was included in BOG agenda which was circulated to all members. A letter No. 16-7/2017-TS.III dated 20<sup>th</sup> November, 2017 was received from MHRD on Nov 21, 2017 in which it was suggested to drop the item from the BOG agenda and instead refer the same to MHRD for their concurrence as decided earlier. However, the item was taken up in the BOG to inform the BOG about the new information that had got revealed about the subject. The BOG discussed the issue and concluded that the matter, with complete details of new revelations, be sent to the MHRD for their concurrence with a request to convey the same within the shortest possible time. Quick resolution of these faculty grievances will help the institute to progress the recruitment of new faculty as well as mapping/upgradation of the existing faculty to avoid any further anomalies.</p> <p>Regarding other faculty grievances presented and discussed in 94<sup>th</sup> BOG meeting, seeking of concurrence from MHRD for their consequent redressal stands as decided by BOG for which concurrence as envisaged will also be sought.</p>
BOG-95/14	To consider the recommendations of the Finance Committee made at its meeting held on 21-11-2017 at 10.30 a.m. at NIT Transit House, Safderjung Enclave, New Delhi.
Resolution No. 14/95	Recommendations of the Finance Committee are Approved. Minutes of the FC are attached.

**Table B.10.1.3h**

**Minutes of the 94<sup>th</sup> meeting of Board of Governors  
National Institute of Technology Srinagar, Hazratbal, J&K**

held on June 19, 2017 at 03.30 p.m. at NIT Transit House, Safdarjung Enclave, New Delhi .

BOG-94/01	To confirm the minutes of the 93 <sup>rd</sup> Board of Governors meeting held on 04.10.2016 and minutes of 93 <sup>rd</sup> BOG meeting (adjourned) held on 13.10.2016 of the Institute at NIT Transit House, Safdarjung Enclave, New Delhi.
Resolution No. 01/94	Minutes of the meeting of the 93 <sup>rd</sup> BOG held on 04.10.2016 were confirmed. The comments as received vide letter No. 16-7/2017-S.III dated: 19 <sup>th</sup> June, 2017 from MHRD with regard to adjourned meeting was discussed by the Board. Upon discussion the said minutes were agreed as confirmed with addition of the sentence that "The action with regard to points 2,3,5 and 6 as contained in Item No. 05/93 of BOG 93 <sup>rd</sup> dated: 13.10.2016 be initiated only after obtaining concurrence of MHRD".
BOG-94/02	To record report in having engaged the services of Assistant Solicitor General of India for J&K High Court at Srinagar as Institute Counsel for conducting the litigation.
Resolution No. 02/94	Report recorded.
BOG-94/03	To record report on the action taken by the Chairman, BOG in having approved engagement of temporary faculty for Autumn Session 2016 and session 2017 against the vacant faculty positions.
Resolution No. 03/94	Report recorded.
BOG-94/04	To consider modifications in the NIT Statutes.
Resolution No. 04/94	The BOG noted that the issues of the existing faculty have been, by and large, addressed by the Revised final modified RRs and the recommendations of the Anomaly Committee communicated vide F.No.35-5/2017-TS.III dated 28/31 July, 2017, F.No. 33-9/2011-TS.III, dated 6 <sup>th</sup> October, 2017 and F.No. 33-9/2011-TS.III, dated 17 <sup>th</sup> November, 2017.
Supplementary agenda BOG-94/05	To consider handing over charge of In-charge Registrar to Prof. M. S. Mir.

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<p>Resolution No. 05/94</p>	<p>Chairman, BOG introduced and asked for distribution of supplementary agenda- handing over charge of Incharge Registrar to Prof. M.S.Mir among the Board members. The Director strongly opposed the Supplementary Agenda tabled by the Chairman. Two representatives from MHRD were of the opinion that status quo be maintained till regular Registrar joins the Institute. Director also made it clear that he will never implement the supplementary agenda in view of the sequence of communications with the Chairman, BOG in this regard, in particular, unanimous resolution passed in Deans and HODs meeting held on 13.06.2017, to maintain the status quo in the interest of the Institute. The Chairman observed that by opposing tabling of this supplementary agenda and by referring to the so called unanimous resolution passed in the meeting of the Deans and HODs, the I/C Director is only giving himself away. Chairman reiterated that it is his assessment that a change is called for given that incumbent I/C Registrar has been holding charge for nearly five years. He also mentioned that there is no apparent reason why Prof. M. S. Mir cannot be handed over charge given his meritorious background and positive and proactive approach.</p> <p>In view of the continued opposition of I/C Director, the Chairman asked for the matter to be put to vote. Upon voting by the show of hands including the casting vote by the Chairman, BOG agreed to hand over of the charge to Prof. M. S. Mir and implementation of the Chairman's order to that effect immediately.</p>
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*Table B.10.1.3i*

**Minutes of the 93rd meeting of Board of Governors**

**National Institute of Technology Srinagar, Hazratbal, J&K**

held on October 04, 2016 at 12.30 p.m. at NIT Transit House, Safdarjung Enclave, New Delhi .

BOG-93/01	To confirm the Minutes of the 92nd Board of Governors meetings of the Institute held on June 03, 2016 at 03.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.
Resolution No. 01/93	Confirmed.
Special item	To consider the resumption of the class work for autumn session 2016 in the wake of situation in the Kashmir valley.
BOG-93/02	

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<p>Resolution No. 02/93</p>	<p>The BOG deliberated on the issue of resumption of class work for autumn-2016 semesters. While taking into account all the options / suggestions put-forth by the members, students, parents, it was decided as under:</p> <p>In case the situation becomes conducive, the class work of Autumn-2016 semester will be resumed on 31st October, 2016 and continued till December 31st, 2016. The examinations for these semesters if not possible to be held at the end of session may be held in February 2017.</p> <p>In case class work is not possible to be resumed on 31 October 2016, the same will then be resumed w.e.f. February 01, 2017 and concluded by 15th April, 2017.</p> <p>The Spring 2017 semesters will start immediately thereafter and shall be concluded by 30th June, 2017.</p> <p>All Saturdays and holidays for these semesters (Autumn-2016&amp; Spring-2017) will be converted into working days.</p> <p>In case class work resumes only from February 01, 2017, the intervening period will be utilized by the students for practical training, project works etc.</p> <p>The faculty of the institute will be available to the students through e-mail / phone / institute website for guiding them and offering clarification etc. for their assigned subjects.</p> <p>Further instructions and information from time to time will be conveyed through institute website.</p>
<p>BOG-93/03</p>	<p>To record action taken report on the decisions of 92nd Board of Governors meeting, held on June 03, 2016 at 03.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.</p>
<p>Resolution No. 03/93</p>	<p>Report recorded.</p>
<p>BOG-93/04</p>	<p>To record report regarding the creation of Delhi Chapter of NIT Srinagar Alumni.</p>
<p>Resolution No. 04/93</p>	<p>Report recorded.</p>
<p>BOG-93/05</p>	<p>To consider recommendation of Grievance Committee for faculty.</p>

*Criterion 10*

and BOG-93/06	And To consider the proposal of ACoFAR Committee for mapping of existing faculty under Four Tier system.
Resolution Nos. 05/93 and05/93	The items were deferred.
BOG-93/07	To consider providing of Ph.D. scholarship to registered DRFs / SRFs of the Institute upto a maximum period of 05 years as per latest MHRD order.
Resolution No. 07/93	Approved.
BOG-93/08	To consider : i) Request of Dr. Firdous Ahmad Wani, (presently on deputation to Jamia Hamdard, New Delhi) for grant of extension of the deputation in his favour till December 2017 ii) To ratify the action taken by the Chairman, Board of Governors in having granted extension in joining in favour of Dr. Firdous A. Wani, Registrar by two months.
Resolution No. 08/93	Extension in deputation not approved. Ratified. Dr. Wani be informed about the decision to join back the Institute.
BOG-93/09	To consider the Progress Report regarding Modernization of National Institute of Technology Srinagar against Rs. 100 Crore grant.
Resolution No. 09/93	After discussion, it was observed that the grant of 100 crores has not been received by the Institute as yet. BOG advised to complete all the preparatory works for executing the projects and tenders etc. can be floated once funds are received.
BOG-93/10	Report of DASA 2016 for information.
Resolution No. 10/93	Report recorded.  The BOG congratulated and complimented NIT Srinagar for the smooth and successful completion of DASA 2016 process.

***Table B.10.1.3j***

**Minutes of the 93rd (Adjourned) Meeting of Board of Governors  
National Institute of Technology Srinagar, Hazratbal, J&K**

Meeting Held on October 13, 2016 at 11.00 a.m. at NIT Transit House, Safdarjung Enclave,  
NewDelhi.

<p>Item No. BOG-93/05</p>	<p>To consider recommendation of Grievance Committee for faculty.</p>
<p>Resolution No. 05/93</p>	<p>A power-point presentation was made by the two internal members of the Grievance Committee who were specially called for the meeting. After this, detailed discussions were held on each of the recommendations of the Faculty Grievance Committee and the following was resolved:</p> <p>1 Grievance listed at GR-01 (regarding extending the benefit of 5th CPC-CAS promotions to the faculty members from the due date of eligibility notionally without any financial benefit).</p> <p>The matter of fixation of date of eligibility in respect of Dr. I K Pandita, Dr R. Ambardar, Dr M. Mushtaq and Dr G A Harmann, was brought forth to bring parity with three professors whose date of eligibility was fixed vide order no. 93 of 2013 dated 25-04-2013 and who had been promoted earlier as Professors under 5<sup>th</sup> CPC in Dec. 2007 through open entry.</p> <p>The Board of Governors (BOG) observed that an order had been issued vide no. 93 of 2013 dated 25-04-2013 in favour of three professors for their placement as professors under CAS. However the supporting documents, on the basis of which BOG issued above order, are not placed.</p> <p>Therefore the BOG desires that the case be returned to Faculty Grievance Committee to re-examine it in light of all supporting documents &amp; come out with fresh recommendations.</p> <p>2 Grievances listed at GR-02, GR-03, GR-04 and GR-05 (regarding extending the benefit of CAS promotions to the faculty members from the due date of eligibility notionally without any financial benefit).</p> <p>The BOG examined the provision 4(q) of MHRD circular issued vide F. No. 33-7/2011-TS.III; dated 14-03-2012, which provides for the arrangement in the cases where CAS interviews were not conducted for three (03) years or more and which reads as under:</p> <p align="center"><i>"All Institutes shall strive to conduct annual selection processes regularly. In case of Institutes that have not conducted CAS interviews for 3 years or more, Selection Committees may, as a onetime measure, examine scholastic contribution of internal candidates made after the</i></p>

	<p><i>last interview and recommend a salary and AGP they would have earned now, had the Selection Committee met at the appropriate time".</i></p> <p>The BOG observed that the selection committees in the cases of Faculty mentioned under BOG-05-(GR-02 to GR-05) have not carried out the exercise as mentioned in previous paragraph. As the CAS was held in 2007 &amp; thereafter it was conducted in 2013 only, therefore BOG observed that the above mentioned provision 4(q) of MHRD circular may be used. This will call for constitution of Selection Committee as per statutory provisions and relevant MHRD circulars. ,</p> <p>The representative of MHRD informed that the term of visitor nominees has already expired. Therefore Board decided that MHRD may be asked to expedite the matter and issue the valid list of visitor nominees.</p> <p>In a similar matter, MHRD representative has stated that CAS cannot be done at this point in time. However it was brought to the notice of BOG that in all these cases one time CAS process, as desired by MHRD vide communication F. No. 33-7/2011-TS.III; dated 14-03-2012, stands already completed and orders issued way back in 2013 as these cases belong to the period prior to 30<sup>th</sup> April 2013 and only date of eligibility needs to be re-fixed by selection committee.</p> <p>Board decided that MHRD may also be requested to allow application of provision 4(q) of MHRD circular issued vide F. No. 33-7/2011-TS.III; dated 14-03-2012 to cases prior to 2007 to be able to remove the anomalies of this period. The reason stated is that prior to 2007 NIT Srinagar conducted CAS in year 2001 and thus there was a gap of six year intervening period in between two subsequent CAS interviews.</p> <p>The BOG further decided that the dates of eligibility thus recommended by the said selection committee, for each case, shall be submitted for approval to be granted by Chairman BOG, for issuance of orders.</p> <p>3 GR-06, GR-07, GR-08 and GR-09 (regarding: (1) grant to promotion from date of eligibility and (2) consideration of 2nd selection Committee recommendations).</p> <p>The BOG observed that these cases also require a review of the dates of effect given to the CAS up-gradations. The BOG decided that the same process as recommended in (2) above be followed for grant of CAS promotion from dates of eligibility. Thereafter, the sealed envelopes in their cases be opened by the Chairman BOG for implementation.</p> <p>4 GR-10 regarding: (Counting of continuous previous Service of Mr Shabir Ahmad Sofi, Assistant Professor (PB3/GP6000 - Equivalent to</p>
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	<p>Pre-revised Lecturer), rendered at NIT Srinagar EDP cell as Research Assistant and at KITE Polytechnic as Lecturer).</p> <p>The BOG did not accept the recommendation.</p> <p>5 GR-11 regarding Counting of previous Adhoc Service of Dr G R Khan rendered at University of Kashmir from 01-04-1991 to 30-04-1993 for service and seniority benefits.</p> <p>With regard to this case, it is observed that counting of Adhoc Service for CAS promotion was provided in the UGC/ AICTE rules, subject to fulfilment of certain conditions. As the conditions stipulated in UGC/ AICTE rules were being fulfilled, the Faculty Grievance Committee has accordingly recommended the case. This recommendation is also consistent with the earlier BOG appointed committee in this case. The BOG thus decided to accept the recommendation of the Faculty Grievance Committee even as the MHRD representative was opposed to it.</p> <p>6 GR-12 and GR-13 regarding counting of previous continuous Adhoc Service of Dr Tanveer Jalal, Associate Professor, Mathematics Department and Dr. Tabassum Ara, Associate Professor, Chemistry Department rendered at University of Kashmir.</p> <p>BOG accepted recommendations in these cases as-well since these are of similar nature as GR-11.</p> <p>7 GR-14 regarding request of Dr Tanveer Jalal, Associate Prof (PB4/AGP9000) for release of increments for the teaching service rendered outside the country at Yanbu Industrial College, Kingdom of Saudi Arabia during the period from 01-10-2010 to 30-09-2012.</p> <p>The case may be brought in the next board meeting along with all the supporting documents related to the other Faculty Members who were granted increments for such teaching service/ research work done.</p> <p>8 GR-15 regarding Request of Dr. M. Ashraf Shah for treating period with effect from 20-06-2011 to 03-10-2011 as active service period and release of salary for the said period.</p>
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	<p>The BOG did not accept the recommendation.</p> <p>9 GR-16 and GR-17 regarding Consideration of Cases for upgradation under 6<sup>th</sup> CPC-CAS with effect from date of eligibility (a) from AGP 6000 to 7000, (b) from AGP 7000 to 8000 and (c) from AGP 9000 to 10000.</p> <p>MHRD representative explained to the Board that MHRD had sought an advice of law Department in the matter. The opinion of the law department has been already conveyed to the Institute wherein it is mentioned that the matter is pending before the Supreme Court of India.</p> <p>However during deliberations it was brought to the notice of Board that these cases are relevant to the period prior to 30<sup>th</sup> April 2013 (the cut-off date fixed by MHRD for implementation of CAS promotions).</p> <p>In view of this, BOG decided that MHRD be requested to look into the matter a fresh and get legal opinion of Solicitor General of India for seeking the necessary relief, with regard to the above matter, from the Hon'ble Supreme Court, so that the Institute is in a position to address the long pending grievances of the deserving faculty. This is necessary for resolving anomalies of period prior to 30<sup>th</sup> April 2013.</p> <p>The BOG further decided that since the instant cases are similar to cases mentioned under BOG-05-(GR-02) and hence once allowed by MHRD, the cases can be treated on the analogy of (1) above and the dates of eligibility thus recommended by the said selection committee, for each case, shall be submitted for approval to be granted by Chairman BOG, for issuance of orders.</p> <p>10 GR-18 regarding <i>counting of service rendered abroad</i>.</p> <p>The matter was discussed and the BOG did not accept the Plea of concerned Faculty Members.</p>
<p>Item No. BOG-93/06</p>	<p>To consider the proposal of ACoFAR Committee for mapping of existing faculty under Four Tier system.</p>

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Resolution No. 06/93	<p>The BOG observed that RR's for 4-Tier structure have been approved by Council of NIT's and as such the proposal of any modification will require approval of the Council.</p> <p>As such the proposal needs to be submitted for consideration of the Council through its Standing Committee. During the discussions Board was informed that the earlier recruitments have been made as per qualifications prescribed in previous schemes circulated by GOI wherein recruitments have been done with M. Tech as well as B. Tech qualifications. In view of this it is therefore justified to incorporate modifications in the present RRs of 4-tier faculty structure so that a fair chance of upgradation is made available to the existing faculty with M. Tech qualifications at lower level cadres. It was also observed that NIT Srinagar has been working under disadvantageous locational and other constraints. The BOG thus resolved as under:</p> <p>The proposal be again studied by the same committee which may also explore the possibilities of obtaining feedback from faculty of other NIT's. The proposal be reframed on the basis of feedback and the said special locational and other constraints facing NIT Srinagar. Further options be included with proper weightage for candidates with M.Tech qualifications and teaching experience.</p>
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**Table B.10.1.3k**

The minutes are confirmed in the meeting of 94<sup>th</sup> Board of Governors held on June 19, 2017 at NIT Transit House, New Delhi with the addition of the sentence *"The action with regard to points 2,3,5, and 6 as contained in item No. 05/93 of BOG 93<sup>rd</sup> meeting dated 13-10-2016 be initiated only after obtaining concurrence of MHRD"*.

**Minutes of the 92<sup>nd</sup> meeting of Board of Governors  
National Institute of Technology Srinagar, Hazratbal, J&K  
held on June 03, 2016 at 03.30 p.m. in the Committee Room of the  
National Institute of Technology Srinagar.**

BOG-92/01	To confirm the Minutes of the 91 <sup>st</sup> Board of Governors meetings of the Institute, held on April 11, 2016 at 02.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.
Resolution No. 01/92	The minutes of the 91 <sup>st</sup> meeting of the Board of Governors were confirmed with inclusion of comments received from Mr. S. P. Goyal, Joint Secretary (TEL), MHRD, Department of Secondary & Higher Education.
BOG-92/02	To record action taken report on the decisions of 91 <sup>st</sup> Board of Governors meeting,

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	held on April 11, 2016 at 02.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.
Resolution No. 02/92	Record reported.
BOG-92/03	To record report on nomination of two faculty members on the Board of Governors of the Institute as per NIT Act 2007.
Resolution No. 03/92	Record reported.
BOG-92/04	To consider the nomination of the Board of Governors on the Finance Committee as per the rules of First Statutes under the National Institute of Technology Act, 2007.
Resolution No. 04/92	Prof. Rajinder Ambardar, Professor, Metallurgical & Materials Engineering department is nominated as member on the Finance Committee from BOG members.
BOG-92/05	To consider the request of the Mr. Mohammad Farooq Mir, Assistant Librarian to fix the superannuation age in his favour as 62 years.
Resolution No. 05/92	<p>The matter was discussed and it was noted that :</p> <p>a) The BOG in its 91st meeting after considering the report of the constituted committee decided to refer the matter to MHRD for their opinion.</p> <p>b) However, MHRD order [F.No.5-3/2012.TS-III dated 31-01-2013 and F.No.3-4/2013-TS dated 12-07-2013 (copies enclosed)] allows granting the benefit of age of superannuation as 62 years in favour of Asstt. Librarians subject to fulfillment of qualification as prescribed by the UGC.</p> <p>c) As per UGC notifications issued vide its order No. F.3-1/94(PS)-7 dated 22-09-2006 candidates having M.Phil. and Ph.D. are exempt from NET. Since Mr. Mohammad Farooq Mir has M.Phil. qualification and as such he is exempted from the NET qualification. In view of this, no relaxation in qualification is required in case of the candidate as he possess M.Phil. qualification.</p> <p>d) Mr. Farooq is therefore entitled to the benefit of superannuation of at the age of 62 years as per the mentioned MHRD order.</p> <p>e) MHRD may be informed of the above and necessary orders for giving the benefit to Mr Farooq be issued thereafter.</p>
BOG-92/06	To consider the report of the Fact Finding Committee of the Institute.
Resolution No. 06/92	The report submitted by Chairman of the Committee Prof. R. Ambardar in a sealed envelope was opened in the meeting with permission of the Chair and thereafter it was deliberated upon thoroughly. The recommendations given by the committee at page no. 18 and 19 were considered one by one and following decisions taken in respect of each recommendation:

	<p>1. Confidence building: It was decided that interaction with students must be enhanced in a structured way and following ways be adopted for the same:</p> <p>The existing clubs of students is used for interaction by the administration periodically for a review of the activities and issues. This should be done atleast twice in one semester.</p> <p>A lunch or dinner is arranged once in each semester where students and faculty would be together.</p> <p>The HODs must organize an interaction with the students of each class once in a month. They may take alongwith one or more other faculty members who are not associated with that class.</p> <p>Saturdays must be utilized in curricular activities through clubs and departments. Sports activities should be increased.</p> <p>2. The departments must publicize the procurements made or procurements under process for laboratory development and other activities in the department through the Institute website and also by a departmental newsletter, managed by students under supervision of faculty.</p> <p>3. In order to attract more faculty members / officers to take up proctorial duties, the benefits for the same needs to be enhanced but simultaneously it needs to be conveyed that no staff member can decline any assignment given to him.</p> <p>4. The Wardens shall submit a report of their periodic visits to the hostel and interaction held with the hostel residents to the Director every fortnight.</p> <p>5. Since the class representatives are already in place, the departments should formalize interaction with these representatives and report of interaction must be kept on record.</p> <p>6. The BOG observed that since the FIR is understood to be against unknown persons as such no discussion is required as this stage.</p> <p>7. The evaluated answer script of the major examination must be got signed by the student after he goes through it. They must also record that he has received back the Minor exam scripts.</p> <p>8. Heads of the Departments must ensure that lower semesters are taught by senior faculty members.</p> <p>9. A booklet containing hostel rules and regulations and other information must be made available to every student at the time of admission in the Institute. This shall be ensured by the Dean Students Welfare.</p> <p>10. The Institute must organize motivational andbehavioural lectures by professional and eminent persons for the students in a structured manner under extracurricular activities.</p>
BOG-92/07	To consider the framing of modalities for constitution of a Students Council.
Resolution	The BOG after detailed deliberations found that the model of Student Council at

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No. 07/92	IEST Shibpur may be adopted by the Institute. However, before implementation, the model may be studied by a Committee including student nominee also for any changes that may be required.			
BOG-92/08	To consider the representations of the students for introduction of NCC in the Institute.			
Resolution No. 08/92	Approved. The programme details shall be worked out by the Institute for the same.			
BOG-92/09	Action taken on the decisions of the meeting held on 19-04-2016 in Delhi with student representatives			
Resolution No. 09/92	The Director, Prof. Rajat Gupta presented the action taken in respect of this item as detailed below:			
	S.No.	Decision	Action taken	BOG order
	1	A new Committee for students Grievance Redressal which has been constituted with two external members will do the fact finding now and its Report is likely to be submitted by 15th may, 2016.	Report already submitted and considered by BOG.	Orders are recorded in item no. BOG-92/06.
	2	BOG to consider the report and formation of students' council and its modalities.	Considered by BOG on 03-06-2016.	Orders are recorded in item no. BOG-92/07.
	3	BOG meeting likely to be held within 20th of May as per the convenience of Chairman.	BOG meeting was scheduled on 27-05-2016 but had to be deferred and was held on 03-06-2015.	No orders required.
	4	Optional external evaluation for minor one on written request and irrevocable basis.	Students were informed to give option through written notice but no one opted.	Record reported.
	5	Enhancement of medical facilities within 3-4 months.	Staff engagement is near finalization after advertisement and scrutiny. Equipment supply orders issued.	Record reported.
6	Prefab two hostels having	Work is going on	Record	

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	80 rooms and prefab 15 class rooms likely to be completed within 6 months.	satisfactorily.	reported.
7	Some medical claims already borne by the Institute and those submitted the bills will also be reimbursed.	Reimbursement made on all claims.	Record reported.
8	Food and fruit corner in the campus to be installed.	N.I. T. issued and these facilities will be soon operational.	BOG ordered to make these operational by 30-06-2016.
9	Encroachment of NIT land has already been taken up, however it will be vigorously pursued with State Government.	Matter already taken up with D. C. Srinagar.	BOG advised to write to Commissioner / Secretary, Higher Education of J&K Government also.
10	All National festivals to be celebrated.	Implemented.	Record reported.
11	Demands relating to improved facilities in the hostels will be expeditiously looked into.	System fast tracked.	Record reported.
<p>The BOG advised that periodic reviews must be made on these issues and students taken into confidence about these during interactions.</p>			

**Table B.10.1.3l**

**Minutes of the 91<sup>st</sup> meeting of Board of Governors National Institute of Technology Srinagar, Hazratbal, J&K held on April 11, 2016 at 02.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.**

BOG-91/01	To confirm the Minutes of the 90 <sup>th</sup> Board of Governors meeting of the Institute, held on December 30, 2015 11.45 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi.
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Resolution No. 01/91	Confirmed with inclusion of the comments received from Mr. S. P. Goyal, Joint Secretary, MHRD, New Delhi.				
BOG-91/02	To record action taken report on the decisions of 90 <sup>th</sup> Board of Governors meeting, held on December 30, 2015 11.45 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi.				
Serial	Meeting No. & Date	Agenda item No.	Resolution	Action taken by the Institute	Resolution/ Comments of the BOG
1	90th 30-12-2015	10	The BOG congratulated the Institute administration and staff for having succeeded to have the external review done on time. The BOG advised to take necessary steps for implementing suggestions of the external review report.	Necessary steps have been initiated.	A quantified report of the action taken be submitted in next meeting of the BOG.
2	90th 30-12-2015	11	<p>During the presentation by Dean P&amp;D, it was revealed that at present as per LAWDA norms the building permission is restricted to G+2 but the proposals of the Institute prepared by CPWD are for G+5 blocks. It was further informed that the Government of J&amp;K Town Planning Department is working on the revised Master Plan of Srinagar City wherein a provision for permission for G+5 type structures is envisaged.</p> <p>Based on these facts the BOG:</p> <p>a) granted in-principal approval for the following two works as G+5 structures through CPWD subject to the permission by the concerned authorities:.</p> <ol style="list-style-type: none"> <li>1. Construction of Academic Block at an estimated cost Rs. 1,58,45,12,000/-.</li> <li>2. Construction of Multi Facility Block at an estimated cost Rs.75,98,42,300/-.</li> </ol> <p>b) In case the permission for G+5 proposals is not granted the proposal shall be revised in terms of the cost of estimate</p>		<p>It was noted that permission for these structures has been granted for G+2 as per existing norms. The Director informed that an assurance by the concerned authorities has been given that permission for G+5 to NIT, Srinagar shall be granted very soon. It was advised that the grant of permission for G+5 from the concerned authorities needs to be pursued vigorously.</p>

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			and resubmitted to the BWC for fresh consideration for the revised proposal. c) In any case, this whole proposal would be reconsidered afresh by each statutory authority of the NIT (i.e. the BWC, the FC & the BOG) upon receiving the approval of the J&K Town Planning Department to entrust G+ 5 types of structures.		
3	FC -09-2015	28 04	FC did not approve the request of officiating Registrar for grant of additional pay..	A report was submitted about deputation of Registrar of Institute, Dr. Firdous Ahmad Wani in the 91 <sup>st</sup> meeting of BOG dated 11-04-2015.	Dr. Firdous Ahmad Wani, Registrar who is on deputation be informed to join back the Institute immediately as the presence of a regular Registrar is essential for the smooth functioning of the Institute.
	BOG-91/03		To record report on the action taken by the Chairman, BOG in having approved engagement of temporary faculty for Spring Session 2016 against the vacant faculty positions.		
	Resol ution No. 03/91		Report recorded. The Board was informed that the due process for such contractual appointments has been strictly adhered to. The Institute was further advised to stringently adhere to the provisions contained in Statute No. 28 of the First Statutes under the NITSER Act, 2007.		
	BOG-91/04		To record report on the stoppage of sitting fee amount to the officials of Ministry / attached Institutions for attending the meetings of Board of Governors, Finance Committee and BWC etc.		
	Resol ution No. 04/91		Report recorded.		
	BOG-91/05		To consider the recommendations of the constituted Committee to fix the superannuation age of Mr. Mohammad Farooq Mir, Assistant Librarian as 62 years.		



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Resol ution 05/91	No.	In view of the recommendations of the committee at para (2) of their report, it was decided to refer the matter to MHRD for their opinion.
91/06	BOG-	To consider the recommendations of the constituted Committee with regard to leave entitlement to Adjunct Faculty in the Institute.
Resol ution 06/91	No.	Since adjunct faculty is not a regular staff, earned leave is not admissible.
91/07	BOG-	To consider the report of the committee constituted to examine the case of Dr. G. R. Khan.
Resol ution 07/91	No.	Mr. S. P. Goyal, Joint Secretary, MHRD and member BOG, desired that copy of the minutes of Selection committee of his engagement in University of Kashmir may be obtained and put up at the next meeting of Board of Governors for consideration.
91/08	BOG-	To consider the two orders of Hon'ble High Court of J&K in matters related to Career Advancement Scheme (CAS).
Resol ution 08/91	No.	The cases be pursued. However the grievances of faculty are fast tracked so that such cases do not arise or at least are minimized. It was strongly pleaded by the Institute administration that the service interests of the existing faculty needs to be protected which otherwise would lead to a non-congenial environment as the affected faculty feels disgruntled which is not a healthy situation. The BOG noted with concern that there is need to address the grievances; however, this can be done within the framework of rules only and it is essential that the Institute Administration and the faculty members appreciate that.
91/09	BOG-	To consider the issues discussed in the brainstorming session held on 10-04-2016 for appropriate advice and orders.
		Item withdrawn.
91/10	BOG-	To consider termination of service as Technical Resignation in favour of Prof. R. K. Wanchoo, former Director of the Institute.
Resol ution 10/91	No.	It was decided to refer the matter to MHRD.
91/11	BOG-	To consider the minutes and recommendations of the Finance Committee made at its meeting held on 11-04-2016 at 10.30 a.m. in the Committee Room of the NIT Srinagar.
Resol ution 11/91	No.	The Institute was advised to place the same before the Board of Governors after the finalization and confirmation of the Minutes of the 1 <sup>st</sup> Meeting of the Finance Committee of 2016, in its next meeting.
91/12	BOG-	To consider the recommendations of the Senate made at its meeting held on 08-04-2016 in the NIT Srinagar, Hazratbal Kashmir.

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Resolution No. 01/91	The Institute was advised to place the same before the Board of Governors after the finalization and confirmation of the Minutes of the referred meeting of the Senate, in its next meeting.
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**Table B.10.1.3m**

**Minutes of the 90<sup>th</sup> meeting of Board of Governors**  
National Institute of Technology Srinagar, Hazratbal, J&K  
held on December 30, 2015 at 11.45 a.m. in the NIT Transit House,  
Safderjung Enclave, New Delhi

BOG-90/01	To confirm the Minutes of the 89th Board of Governors meetings of the Institute, held on September 28, 2015 11.00 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi.
Resolution No. 01/90	Confirmed. The modifications incorporated in the minutes of the Finance Committee meeting dated 28-09-2015 shall also get included in these minutes.
BOG-90/02	To record action taken report on the decisions of 89 <sup>th</sup> Board of Governors meeting, held on September 28, 2015 11.00 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi
Resolution No. 02/90	Report recorded alongwith the following decisions: a) In case of resolution no. 04/89 regarding Senate item 20/07 i.e. NIT Srinagar distinguished Alumni Award, it was decided that two awards shall be presented every year during the Alumni Meet and the constituted committee shall identify the awardees accordingly.
BOG-90/03	To record report on the action taken by the Director in having approved engagement of two Electricians on contractual basis in the P&D Wing of the Institute.
Resolution No. 03/90	Ratified.
BOG-90/04	To record report on the conduct of DASA 2016 by NIT Srinagar.
Resolution No. 04/90	Report recorded.
BOG-90/05	To record report on the action taken by the BOG, BOG in having approved continuation of Mr. M. M. Shawl and Mr. P. L. Saproo.
Resolution No. 05/90	Report recorded. However, the advice of IFD may be sought so that it is ensured that there is no scope for errors in calculation of monthly consolidated emoluments in such engagements.

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BOG-90/06	To ratify the action taken by the Chairman, Board of Governors in having authorized the Director to constitute the Departmental Visiting Committees.
Resolution No. 06/90	Ratified.
BOG-90/07	To ratify the action taken by the Chairman, Board of Governors in having approved composition of a Committee for External Review.
Resolution No. 07/90	Ratified.
BOG-90/08	To approve the minutes of Selection Committee of the Trainee Teachers
Resolution No. 08/90	Recommendations of the Selection Committee of the Trainee Teachers are approved. Needful may be done so that the selected candidates can join IIT Delhi as Ph.D. scholars for the January 2016 session after submission of prescribed bond which has already been vetted by the Standing Counsel of the Institute. The maximum duration is 07 years which has been confirmed from IIT Delhi and included in the Bond.
BOG-90/09	To consider the report of the Committee for mapping under Restructuring of Non faculty staff
Resolution No. 09/90	The BOG noted that the proposal has been circulated to all the members as per the decision in the previous meeting. However, while no comment was received, Prof. Rather pointed out certain errors in the proposal during discussion. Chairman, BOG also observed that the Restructuring and the corresponding Mapping proposal is important requiring great care inasmuch as the structure / positions / posts proposed must take into account needs of the Institute in the foreseeable future. Further, mapping / deployment of the existing staff against the proposed structure / positions has to be done as per the prescribed rules ensuring at the same time that there is no or minimal possibility of any anomalies arising as a result of the exercise. It was, therefore, decided that the Director should get this proposal examined / reworked out by a small Group / Committee comprising Prof. G. M. Rather, member BOG and others. The concerned staff from Personnel Department of the Institute requires to provide necessary assistance to this Committee and in fact, be actively involved in this exercise. Upon satisfying himself with the report of this Committee, the Director can put it up to the Chairman, BOG for final approval for implementing the same.
BOG-90/10	Consider the report of the External Review Committee.

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<p>Resolution No. 10/90</p>	<p>The BOG congratulated the Institute administration and staff for having succeeded to have the external review done on time. The BOG advised to take necessary steps for implementing suggestions of the external review report.</p>
<p>BOG-90/11</p>	<p>To consider grant of in Principle approval for construction of two new multi storied buildings as per approved Master Plan.</p>
<p>Resolution No. 11/90</p>	<p>During the presentation by Dean P&amp;D, it was revealed that at present as per LAWDA norms the building permission is restricted to G+2 but the proposals of the Institute prepared by CPWD are for G+5 blocks. It was further informed that the Government of J&amp;K Town Planning Department is working on the revised Master Plan of Srinagar City wherein a provision for permission for G+5 type structures is envisaged.</p> <p>Based on these facts the BOG:</p> <p>a) granted in-principal approval for the following two works as G+5 structures through CPWD subject to the permission by the concerned authorities:.</p> <ol style="list-style-type: none"> <li>1. Construction of Academic Block at an estimated cost Rs. 1,58,45,12,000/-.</li> <li>2. Construction of Multi facility Block at an estimated cost Rs.75,98,42,300/-.</li> </ol> <p>b) In case the permission or G+ 5 proposals is not granted the proposal shall be revised in terms of the cost of estimate and resubmitted to the BWC for fresh approval for the revised proposal.</p>
<p>BOG-90/12</p>	<p>To consider the report on the activities of the Innovation, Incubation and Entrepreneurship Development Centre (IIEDC).</p>
<p>Resolution No. 12/90</p>	<p>The BOG noted with appreciation the steps that have been taken by the Institute under the Centre. It was advised that the Vision and Mission statement should include Incubation very prominently. It was advised that the activities should be pursued as per the Vision and Mission statement and collaboration with similar setups in the country should be explored very effectively. Further, it was advised to publicize the activities undertaken by this centre and a quarterly or six monthly News-letters may be printed by the centre for this purpose in addition to other mediums of publicity.</p> <p>Further BOG agreed in-principal to the proposal of setting up of an independent Incubation Centre to support the industries, entrepreneurship and start up in the following areas and advised for preparation of a DPR with help and involvement of an appropriate outside agency, if required:</p>

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	<ol style="list-style-type: none"> <li>1. Mechanical Engineering oriented activities</li> <li>2. Chemical Engineering oriented activities</li> <li>3. Civil Engineering oriented activities</li> <li>4. Electronics &amp; Comm. Engineering oriented activities</li> <li>5. Electrical Engineering oriented activities</li> <li>6. Information Technology oriented activities</li> </ol>
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**Table B.10.1.3n**

**Action taken report:**

**To record action taken report on the decisions of Board of Governors Meeting held on 21-11-2017 in the NIT Transit House, Safderjung Enclave, New Delhi.**

BOG-95/01	To confirm the minutes of the 95 <sup>th</sup> Board of Governors meeting of the Institute held on June 19 <sup>th</sup> , 2017 in NIT Transit House, at Safdarjung Enclave, New Delhi.	
Resolution No. 01/95	<p>Minutes Confirmed with the change that the words, 'so called' be replaced by 'as reported' in the twelfth line of the Resolution No. 05/94 of BOG-94/05. This change was sought to be made by the Chairman in view of the sentiments expressed by the then I/C Director, Prof. A. R. Dar in one of his communications.</p> <p>While confirming the minutes, the BOG was informed that with regard to Resolution No. 04/94 of BOG-94/04 the issues have been, by and large, addressed by the Revised final modified RRs and the recommendations of the Anomaly Committee.</p>	No action called for.
BOG-95/02	To record action taken report on the decisions of 93 <sup>rd</sup> Board of Governors meeting, held on October 04, 2016 and Adjourned meeting on October 13, 2016 at NIT Transit House, Safdarjung Enclave, New Delhi.	
Resolution No. 02/95	Report Recorded.	No action called for.
BOG-95/03	To ratify the action taken by the Chairman, BOG in having approved enhancement of wages as per the Labour Schedule of Government of India in favour of Contractual workers engaged on compassionate basis.	
Resolution No.	Ratified.	Office Order issued.

Criterion 10

03/95		
BOG-95/04	To ratify the action taken by the Chairman, BOG in having approved extension of cut-off date for usage of CPDA of Block 2014-17 by faculty members upto 31-03-2018.	
Resolution No. 04/95	Ratified.	Office Order issued.
BOG-95/05	To consider the recommendations of the Central Purchase Committee with regard to releasing of remaining 30% payment in favour of M/S New Hi-Tech Enterprises, Srinagar against supply of gold medals for convocation 2013, held for the batches from 2004-2011.	
Resolution No. 05/95	The BOG advised to refer the matter for legal opinion and take a decision accordingly.	Matter under consideration.
BOG-95/06	Adoption of communications of Vigilance Section of Department of Higher Education, MHRD, received by the Institute.	
Resolution No. 06/95	Adopted	No action called for.
BOG-95/07	To consider the minutes of 8 <sup>th</sup> , 9 <sup>th</sup> and 10 <sup>th</sup> meetings of NIT Council held on 25-09-2014, 01-10-2015 and 26-05-2017 respectively.	
Resolution No. 07/95	Report Recorded. The minutes of 10 <sup>th</sup> meeting of NIT Council was tabled in the meeting.	No action called for.
BOG-95/08	To adopt amendments in the First Statutes of the National Institutes of Technology (NITs).	
Resolution No. 08/95	Adopted	No action called for.

Criterion 10

BOG-95/09	To adopt the recommendations of the Anomaly Committee on new Recruitment Rules for Faculty in NITs and IEST regarding promotion of existing Assistant Professors to Associate Professors and mapping of existing Associate Professors with AGP of Rs.9,000/- to Rs. 9,500/- and Professors with AGP of Rs. 10,000/- to Rs.10,500/- communicated vide F. No. 33-9/2011-TS.III, dated 6 <sup>th</sup> October, 2017 and F. No. 33-9/2011-TS.III, dated 17 <sup>th</sup> November, 2017	
Resolution No. 09/95	Adopted. The communications vide F.No. 33-9/2011-TS.III, dated 17 <sup>th</sup> November, 2017 was tabled in the meeting.	Exercise under process.
BOG-95/10	To consider the recommendations of the Finance Committee made at its meeting held on 04-10-2016 at 10.30 a.m. at NIT Transit House, Safdarjung Enclave, New Delhi.	
Resolution No. 10/95	The recommendations of the Finance Committee are Approved	No action called for.
BOG-95/11	To approve the recommendations of the Selection Committee for appointment of Registrar for NIT Srinagar.	
Resolution No. 11/95	The recommendations of the Selection Committee for selection of Registrar for NIT Srinagar are Accepted and Approved. The offer letter may first be issued to the incumbent at S.No. 1, i.e., Dr. Nisar Ahmad Mir, at the earliest as per the recommendations of the Selection Committee. The necessary contract may be signed with the selected candidate.	Offer Letter issued.  Dr. Nisar Ahmad Mir has joined as Registrar on 24.01.2018.
BOG-95/12	To consider the request of existing Assistant Professors for promotion as Associate Professors as and when they complete their Ph.D.	
Resolution No. 12/95	It was noted that all the above faculty members have teaching experience of more than 09 years and are already pursuing their Ph.D. programme. The BOG was of the view that the faculty	Matter referred to Ministry vide letter No.NIT/B&D/2017/2003/.Dated 06-12-2017

Criterion 10

	<p>members are getting covered for upgradations under the recommendations of the Anomaly Committee on new Recruitment Rules communicated vide F. No. 33-9/2011-TS.III, dated 6<sup>th</sup> October, 2017, as a onetime measure. However, it was decided to get a clarification from MHRD to this effect.</p>	
BOG-95/13	<p>To approve for correcting and re-fixing the dates of eligibility of some of the Faculty members of NIT Srinagar.</p>	
Resolution No. 13/95	<p>It was decided to bring the new revealed facts before the Board of Governors for allowing to carry out necessary exercise for implementing the selection committee recommendations, under rules, with regard to all cases in order to give effect to upgradations from the dates of eligibility. Accordingly the item was included in BOG agenda which was circulated to all members. A letter No. 16-7/2017-TS.III dated 20<sup>th</sup> November, 2017 was received from MHRD on Nov 21, 2017 in which it was suggested to drop the item from the BOG agenda and instead refer the same to MHRD for their concurrence as decided earlier. However, the item was taken up in the BOG to inform the BOG about the new information that had got revealed about the subject. The BOG discussed the issue and concluded that the matter, with complete details of new revelations, be sent to the MHRD for their concurrence with a request to convey the same within the shortest possible time. Quick resolution of these faculty grievances will help the institute to progress the recruitment of new faculty as well as mapping/up gradation of the existing faculty to avoid any further anomalies. Regarding other faculty grievances presented and discussed in 94<sup>th</sup> BOG meeting, seeking of concurrence from MHRD for their consequent redressal stands as decided by BOG for which concurrence as envisaged will also be sought.</p>	<p>Matter referred to MHRD Vide letter No. NITs/PD/17/4754 dated:25-11-2017, followed by another reminder No.NIT/DO/18/4955 dated: 15-01-2018. The decision from MHRD is yet awaited.</p>
BOG-	<p>To consider the recommendations of the Finance</p>	



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95/14	Committee made at its meeting held on 21-11-2017 at 10.30 a.m. at NIT Transit House, Safderjung Enclave, New Delhi.	
Resolution No. 14/95	Recommendations of the Finance Committee were circulated amongst the members through mail on 25 <sup>th</sup> November 2017. No comments were received.	No action called for.

**Table B.10.1.3o**

**To record action taken report on the decisions of 93<sup>rd</sup> Board of Governors meeting, held on October 04, 2016 and Adjourned meeting on October 13, 2016 at NIT Transit House, Safdarjung Enclave, New Delhi.**

BOG-93/01	To confirm the Minutes of the 92 <sup>nd</sup> Board of Governors meetings of the Institute, held on June 03, 2016 at 03.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.	
Resolution No. 01/93	Confirmed.	No action called for.
Special item	To consider the resumption of the class work for autumn session 2016 in the wake of situation in the Kashmir valley.	
BOG-93/02		
Resolution No. 02/93	<p>The BOG deliberated on the issue of resumption of class work for autumn-2016 semesters. While taking into account all the options / suggestions put-forth by the members, students, parents, it was decided as under:</p> <p>In case the situation becomes conducive, the class work of Autumn-2016 semester will be resumed on 31<sup>st</sup> October, 2016 and continued till December 31<sup>st</sup>, 2016. The examinations for these semesters if not possible to be held at the end of session may be held in February 2017.</p> <p>In case class work is not possible to be resumed on 31 October 2016, the same will then be resumed w.e.f.</p>	Implemented.

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	<p>February 01, 2017 and concluded by 15<sup>th</sup> April, 2017.</p> <p>The Spring 2017 semesters will start immediately thereafter and shall be concluded by 30<sup>th</sup> June, 2017.</p> <p>All Saturdays and holidays for these semesters (Autumn-2016&amp; Spring-2017) will be converted into working days.</p> <p>In case class work resumes only from February 01, 2017, the intervening period will be utilized by the students for practical training, project works etc.</p> <p>The faculty of the institute will be available to the students through e-mail / phone / institute website for guiding them and offering clarification etc. for their assigned subjects.</p> <p>Further instructions and information from time to time will be conveyed through institute website.</p>	
BOG-93/03	To record action taken report on the decisions of 92nd Board of Governors meeting, held on June 03, 2016 at 03.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.	
Resolution No. 03/93	Report recorded.	No action called for.
BOG-93/04	To record report regarding the creation of Delhi Chapter of NIT Srinagar Alumni.	
Resolution No. 04/93	Report recorded.	No action called for.
BOG-93/05 and BOG-93/06	To consider recommendation of Grievance Committee for faculty. And To consider the proposal of ACoFAR	

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	Committee for mapping of existing faculty under Four Tier system.	
Resolution Nos. 05/93 and 06/93	The items were deferred.	These items were placed in adjourned meeting held on 13-10-2016.
BOG-93/07	To consider providing of Ph.D. scholarship to registered DRFs / SRFs of the Institute upto a maximum period of 05 years as per latest MHRD order.	
Resolution No. 07/93	Approved.	Orders issued and implemented.
BOG-93/08	To consider : i) Request of Dr. Firdous Ahmad Wani, (presently on deputation to Jamia Hamdard, New Delhi) for grant of extension of the deputation in his favour till December 2017 ii) To ratify the action taken by the Chairman, Board of Governors in having granted extension in joining in favour of Dr. Firdous A. Wani, Registrar by two months.	
Resolution No. 08/93	Extension in deputation not approved. Ratified. Dr. Wani be informed about the decision to join back the Institute.	Dr. Wani was conveyed about the decision of the BOG. However, he opted for premature retirement from the Institute.
BOG-93/09	To consider the Progress Report regarding Modernization of National Institute of Technology Srinagar against Rs. 100 Crore grant.	
Resolution No. 09/93	After discussion, it was observed that the grant of 100 crores has not been received by the Institute as yet. BOG advised to complete all the preparatory works for executing the projects and tenders etc. can be floated once funds are received.	So far we have utilized 9.2 crores out of this fund under the 1st phase. Some of the tenders are at last stage of processing. Works for executing the projects and tenders etc. are going on.
BOG-93/10	Report of DASA 2016 for information.	
Resolution No. 10/93	Report recorded. The BOG congratulated and	No action called for. Felicitations have been conveyed.

Criterion 10

	complimented NIT Srinagar for the smooth and successful completion of DASA 2016 process.	
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**Table B.10.1.3p**

**Adjourned meeting dated 13-10-2017**

Item No. BOG-93/05	To consider recommendation of Grievance Committee for faculty.			
Resolution No. 05/93	<p>A power-point presentation was made by the two internal members of the Grievance Committee who were specially called for the meeting. After this, detailed discussions were held on each of the recommendations of the Faculty Grievance Committee and the following was resolved:</p> <table border="1"> <tr> <td>1</td> <td> <p>Grievance listed at GR-01 (regarding extending the benefit of 5th CPC-CAS promotions to the faculty members from the due date of eligibility notionally without any financial benefit).</p> <p>The matter of fixation of date of eligibility in respect of Dr. I K Pandita, Dr R. Ambardar, Dr M. Mushtaq and Dr G A Harmann, was brought forth to bring parity with three professors whose date of eligibility was fixed vide order no. 93 of 2013 dated 25-04-2013 and who had been promoted earlier as Professors under 5<sup>th</sup> CPC in Dec. 2007 through open entry.</p> <p>The Board of Governors (BOG) observed that an order had been issued vide no. 93 of 2013 dated 25-04-2013 in favour of three professors for their placement as professors under CAS. However the supporting documents, on the basis of which BOG issued above order, are not placed.</p> </td> </tr> </table>	1	<p>Grievance listed at GR-01 (regarding extending the benefit of 5th CPC-CAS promotions to the faculty members from the due date of eligibility notionally without any financial benefit).</p> <p>The matter of fixation of date of eligibility in respect of Dr. I K Pandita, Dr R. Ambardar, Dr M. Mushtaq and Dr G A Harmann, was brought forth to bring parity with three professors whose date of eligibility was fixed vide order no. 93 of 2013 dated 25-04-2013 and who had been promoted earlier as Professors under 5<sup>th</sup> CPC in Dec. 2007 through open entry.</p> <p>The Board of Governors (BOG) observed that an order had been issued vide no. 93 of 2013 dated 25-04-2013 in favour of three professors for their placement as professors under CAS. However the supporting documents, on the basis of which BOG issued above order, are not placed.</p>	Case is returned to Grievance Committee, its report is awaited
1	<p>Grievance listed at GR-01 (regarding extending the benefit of 5th CPC-CAS promotions to the faculty members from the due date of eligibility notionally without any financial benefit).</p> <p>The matter of fixation of date of eligibility in respect of Dr. I K Pandita, Dr R. Ambardar, Dr M. Mushtaq and Dr G A Harmann, was brought forth to bring parity with three professors whose date of eligibility was fixed vide order no. 93 of 2013 dated 25-04-2013 and who had been promoted earlier as Professors under 5<sup>th</sup> CPC in Dec. 2007 through open entry.</p> <p>The Board of Governors (BOG) observed that an order had been issued vide no. 93 of 2013 dated 25-04-2013 in favour of three professors for their placement as professors under CAS. However the supporting documents, on the basis of which BOG issued above order, are not placed.</p>			

	<p>Therefore the BOG desires that the case be returned to Faculty Grievance Committee to re-examine it in light of all supporting documents &amp; come out with fresh recommendations.</p>	
	<p>2 Grievances listed at GR-02, GR-03, GR-04 and GR-05 (regarding extending the benefit of CAS promotions to the faculty members from the due date of eligibility notionally without any financial benefit).</p> <p>The BOG examined the provision 4(q) of MHRD circular issued vide F. No. 33-7/2011-TS.III; dated 14-03-2012, which provides for the arrangement in the cases where CAS interviews were not conducted for three (03) years or more and which reads as under:</p> <p><i>"All Institutes shall strive to conduct annual selection processes regularly. In case of Institutes that have not conducted CAS interviews for 3 years or more, Selection Committees may, as a onetime measure, examine scholastic contribution of internal candidates made after the last interview and recommend a salary and AGP they would have earned now, had the Selection Committee met at the appropriate time".</i></p> <p>T The BOG observed that the selection committees in the cases of Faculty mentioned under BOG-05- (GR-02 to GR-05) have not carried out the exercise as mentioned in previous paragraph. As the CAS was held in 2007 &amp; thereafter it was conducted in 2013 only, therefore BOG observed that the above mentioned provision 4(q) of MHRD circular may be used. This will call for constitution of Selection</p>	<p>The recommendations of the Scrutiny and Selection Committees with regard to dates of eligibility for CAS upgradations had not been made available to the Grievance Committee. After examining the reports of internal scrutiny committee and recommendations of selection committees, following was observed:</p> <p>(a) Internal scrutiny committee has correctly recorded the dates of eligibility for CAS upgradations and the same had been placed before the selection committees.</p> <p>(b) Selection committees have given the recommendations for CAS promotions / upgradations as 'UNDER RULES' from effective dates.</p> <p>In light of above, it was decided to put the new facts before the Board of Governors again for their consideration and approval for allowing correcting and refixing dates of eligibility of faculty members.</p>

	<p>Committee as per statutory provisions and relevant MHRD circulars. ,</p> <p>The representative of MHRD informed that the term of visitor nominees has already expired. Therefore Board decided that MHRD may be asked to expedite the matter and issue the valid list of visitor nominees.</p> <p>In a similar matter, MHRD representative has stated that CAS cannot be done at this point in time. However it was brought to the notice of BOG that in all these cases one time CAS process, as desired by MHRD vide communication F. No. 33-7/2011-TS.III; dated 14-03-2012, stands already completed and orders issued way back in 2013 as these cases belong to the period prior to 30<sup>th</sup> April 2013 and only date of eligibility needs to be re-fixed by selection committee.</p> <p>Board decided that MHRD may also be requested to allow application of provision 4(q) of MHRD circular issued vide F. No. 33-7/2011-TS.III; dated 14-03-2012 to cases prior to 2007 to be able to remove the anomalies of this period. The reason stated is that prior to 2007 NIT Srinagar conducted CAS in year 2001 and thus there was a gap of six year intervening period in between two subsequent CAS interviews.</p> <p>The BOG further decided that the dates of eligibility thus recommended by the said selection committee, for each case, shall be submitted for approval to be granted by Chairman BOG, for issuance of orders.</p>	
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	<table border="1"> <tr> <td>3</td> <td> <p>GR-06, GR-07, GR-08 and GR-09 (regarding: (1) grant to promotion from date of eligibility and (2) consideration of 2nd selection Committee recommendations). The BOG observed that these cases also require a review of the dates of effect given to the CAS up-gradations. The BOG decided that the same process as recommended in (2) above be followed for grant of CAS promotion from dates of eligibility. Thereafter, the sealed envelopes in their cases be opened by the Chairman BOG for implementation.</p> </td> </tr> </table>	3	<p>GR-06, GR-07, GR-08 and GR-09 (regarding: (1) grant to promotion from date of eligibility and (2) consideration of 2nd selection Committee recommendations). The BOG observed that these cases also require a review of the dates of effect given to the CAS up-gradations. The BOG decided that the same process as recommended in (2) above be followed for grant of CAS promotion from dates of eligibility. Thereafter, the sealed envelopes in their cases be opened by the Chairman BOG for implementation.</p>	<p>The recommendations of the Scrutiny and Selection Committees with regard to dates of eligibility for CAS upgradations had not been made available to the Grievance Committee. After examining the reports of internal scrutiny committee and recommendations of selection committees, following was observed:</p> <p>(a) Internal scrutiny committee has correctly recorded the dates of eligibility for CAS upgradations and the same had been placed before the selection committees.</p> <p>(b) Selection committees have given the recommendations for CAS promotions / upgradations as 'UNDER RULES' from effective dates.</p> <p>In light of above, it was decided to put the new facts before the Board of Governors again for their consideration and approval for allowing correcting and refixing dates of eligibility of faculty members.</p>
3	<p>GR-06, GR-07, GR-08 and GR-09 (regarding: (1) grant to promotion from date of eligibility and (2) consideration of 2nd selection Committee recommendations). The BOG observed that these cases also require a review of the dates of effect given to the CAS up-gradations. The BOG decided that the same process as recommended in (2) above be followed for grant of CAS promotion from dates of eligibility. Thereafter, the sealed envelopes in their cases be opened by the Chairman BOG for implementation.</p>			
	<table border="1"> <tr> <td>4</td> <td> <p>GR-10 regarding: (Counting of continuous previous Service of Mr Shabir Ahmad Sofi, Assistant Professor (PB3/GP6000 - Equivalent to Pre-revised Lecturer), rendered at NIT Srinagar EDP cell as Research Assistant and at KITE Polytechnic as Lecturer).</p> <p>The BOG did not accept the recommendation.</p> </td> </tr> </table>	4	<p>GR-10 regarding: (Counting of continuous previous Service of Mr Shabir Ahmad Sofi, Assistant Professor (PB3/GP6000 - Equivalent to Pre-revised Lecturer), rendered at NIT Srinagar EDP cell as Research Assistant and at KITE Polytechnic as Lecturer).</p> <p>The BOG did not accept the recommendation.</p>	<p>No action called for.</p>
4	<p>GR-10 regarding: (Counting of continuous previous Service of Mr Shabir Ahmad Sofi, Assistant Professor (PB3/GP6000 - Equivalent to Pre-revised Lecturer), rendered at NIT Srinagar EDP cell as Research Assistant and at KITE Polytechnic as Lecturer).</p> <p>The BOG did not accept the recommendation.</p>			
	<table border="1"> <tr> <td>5</td> <td> <p>GR-11 regarding Counting of previous Adhoc Service of Dr G R Khan rendered at University of Kashmir from 01-04-1991 to 30-04-1993 for service and seniority benefits.</p> </td> </tr> </table>	5	<p>GR-11 regarding Counting of previous Adhoc Service of Dr G R Khan rendered at University of Kashmir from 01-04-1991 to 30-04-1993 for service and seniority benefits.</p>	
5	<p>GR-11 regarding Counting of previous Adhoc Service of Dr G R Khan rendered at University of Kashmir from 01-04-1991 to 30-04-1993 for service and seniority benefits.</p>			

Criterion 10

		<p>With regard to this case, it is observed that counting of Adhoc Service for CAS promotion was provided in the UGC/ AICTE rules, subject to fulfillment of certain conditions. As the conditions stipulated in UGC/ AICTE rules were being fulfilled, the Faculty Grievance Committee has accordingly recommended the case. This recommendation is also consistent with the earlier BOG appointed committee in this case. The BOG thus decided to accept the recommendation of the Faculty Grievance Committee even as the MHRD representative was opposed to it.</p>	<p>Concurrence of MHRD being sought.</p>
	6	<p>GR-12 and GR-13 regarding counting of previous continuous Adhoc Service of Dr Tanveer Jalal, Associate Professor, Mathematics Department and Dr. Tabassum Ara, Associate Professor, Chemistry Department rendered at University of Kashmir. BOG accepted recommendations in these cases as-well since these are of similar nature as GR-11.</p>	<p>Concurrence of MHRD is being sought.</p>
	7	<p>GR-14 regarding request of Dr Tanveer Jalal, Associate Prof (PB4/AGP9000) for release of increments for the teaching service rendered outside the country at Yanbu Industrial College, Kingdom of Saudi Arabia during the period from 01-10-2010 to 30-09-2012. The case may be brought in the next board meeting along with all the supporting documents related to the other Faculty Members who were granted increments for such teaching service/ research work done.</p>	<p>Item will be put up in the next BOG meeting.</p>
	8	<p>GR-15 regarding Request of Dr.</p>	



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	<p>M. Ashraf Shah for treating period with effect from 20-06-2011 to 03-10-2011 as active service period and release of salary for the said period. The BOG did not accept the recommendation.</p>	<p>No action called for.</p>
<p>9</p>	<p>GR-16 and GR-17 regarding Consideration of Cases for upgradation under 6<sup>th</sup> CPC-CAS with effect from date of eligibility (a) from AGP 6000 to 7000, (b) from AGP 7000 to 8000 and (c) from AGP 9000 to 10000.</p> <p>MHRD representative explained to the Board that MHRD had sought an advice of law Department in the matter. The opinion of the law department has been already conveyed to the Institute wherein it is mentioned that the matter is pending before the Supreme Court of India.</p> <p>However during deliberations it was brought to the notice of Board that these cases are relevant to the period prior to 30<sup>th</sup> April 2013 (the cut-off date fixed by MHRD for implementation of CAS promotions).</p> <p>In view of this, BOG decided that MHRD be requested to look into the matter a fresh and get legal opinion of Solicitor General of India for seeking the necessary relief, with regard to the above matter, from the Hon'ble Supreme Court, so that the Institute is in a position to address the long pending grievances of the deserving faculty. This is necessary for resolving</p>	<p>The recommendations of the Scrutiny and Selection Committees with regard to dates of eligibility for CAS upgradations had not been made available to the Grievance Committee. After examining the reports of internal scrutiny committee and recommendations of selection committees, following was observed:</p> <p>(a) Internal scrutiny committee has correctly recorded the dates of eligibility for CAS upgradations and the same had been placed before the selection committees.</p> <p>(b) Selection committees have given the recommendations for CAS promotions / upgradations as 'UNDER RULES' from effective dates.</p> <p>In light of above, it was decided to put the new facts before the Board of Governors again for their consideration and approval for allowing correcting and re-fixing dates of eligibility of faculty members.</p>

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		<p>anomalies of period prior to 30<sup>th</sup> April 2013.</p> <p>The BOG further decided that since the instant cases are similar to cases mentioned under BOG-05-(GR-02) and hence once allowed by MHRD, the cases can be treated on the analogy of (1) above and the dates of eligibility thus recommended by the said selection committee, for each case, shall be submitted for approval to be granted by Chairman BOG, for issuance of orders.</p>	
	10	<p>GR-18 regarding <i>counting of service rendered abroad</i>.</p> <p>The matter was discussed and the BOG did not accept the Plea of concerned Faculty Members.</p>	No action called for.
Item No. BOG-93/06	To consider the proposal of ACoFAR Committee for mapping of existing faculty under Four Tier system.		
Resolution No. 06/93	<p>The BOG observed that RR's for 4-Tier structure have been approved by Council of NIT's and as such the proposal of any modification will require approval of the Council.</p> <p>As such the proposal needs to be submitted for consideration of the Council through its Standing Committee. During the discussions Board was informed that the earlier recruitments have been made as per qualifications prescribed in previous schemes circulated by GOI wherein recruitments have been done with M. Tech as well as B. Tech qualifications. In view of this it is therefore justified to incorporate modifications in the present RRs of 4-tier faculty structure so that a fair chance of upgradation is made available to the existing faculty with M. Tech qualifications at lower level cadres. It was also observed that NIT Srinagar has been working under</p>		In view of final revised RR's no action called for.

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	<p>disadvantageous locational and other constraints. The BOG thus resolved as under:</p> <p>The proposal is again studied by the same committee which may also explore the possibilities of obtaining feedback from faculty of other NIT's. The proposal be reframed on the basis of feedback and the said special locational and other constraints facing NIT Srinagar. Further options are included with proper weightage for candidates with M.Tech qualifications and teaching experience.</p>	
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**Table B.10.1.3q**

**To record action taken report on the decisions of 92nd Board of Governors meeting, held on June 03, 2016 at 03.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.**

BOG-92/01	To confirm the Minutes of the 91 <sup>st</sup> Board of Governors meetings of the Institute held on April 11, 2016 at 02.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.	
Resolution No. 01/92	The minutes of the 91 <sup>st</sup> meeting of the Board of Governors were confirmed with inclusion of comments received from Mr. S. P. Goyal, Joint Secretary (TEL), MHRD, and Department of Secondary & Higher Education.	Needful done.
BOG-92/02	To record action taken report on the decisions of 91st Board of Governors meeting, held on April 11, 2016 at 02.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.	
Resolution No. 02/92	Record reported.	No action called for.
BOG-92/03	To record report on nomination of two faculty members on the Board of Governors of the Institute as per NIT Act 2007.	
Resolution No. 03/92	Record reported.	No action called for.
BOG-92/04	To consider the nomination of the Board of Governors on the Finance Committee as per the rules of First Statutes under the National Institute of Technology Act, 2007.	
Resolution No. 04/92	Prof. Rajinder Ambardar, Professor, Metallurgical & Materials Engineering department is nominated as member on the Finance Committee from BOG members.	Orders issued.
BOG-	To consider the request of the Mr. Mohammad Farooq Mir,	

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92/05	Assistant Librarian to fix the superannuation age in his favour as 62 years.	
Resolution No. 05/92	<p>The matter was discussed and it was noted that :</p> <p>a) The BOG in its 91st meeting after considering the report of the constituted committee decided to refer the matter to MHRD for their opinion.</p> <p>b) However, MHRD order [F.No.5-3/2012.TS-III dated 31-01-2013 and F.No.3-4/2013-TS dated 12-07-2013 (copies enclosed)] allows granting the benefit of age of superannuation as 62 years in favour of Asstt. Librarians subject to fulfillment of qualification as prescribed by the UGC.</p> <p>c) As per UGC notifications issued vide its order No. F.3-1/94(PS)-7 dated 22-09-2006 candidates having M.Phil. and Ph.D. are exempt from NET. Since Mr. Mohammad Farooq Mir has M.Phil. qualification and as such he is exempted from the NET qualification. In view of this, no relaxation in qualification is required in case of the candidate as he possess M.Phil. qualification.</p> <p>d) Mr. Farooq is therefore entitled to the benefit of superannuation of at the age of 62 years as per the mentioned MHRD order.</p> <p>e) MHRD may be informed of the above and necessary orders for giving the benefit to Mr Farooq be issued thereafter.</p>	
BOG-92/06	To consider the report of the Fact Finding Committee of the Institute.	
Resolution No. 06/92	<p>The report submitted by Chairman of the Committee Prof. R. Ambarder in a sealed envelope was opened in the meeting with permission of the Chair and thereafter it was deliberated upon thoroughly. The recommendations given by the committee at page no. 18 and 19 were considered one by one and following decisions taken in respect of each recommendation:</p> <p>1. Confidence building: It was decided that interaction with students must be enhanced in a structured way and following ways be adopted for the same:</p> <p>The existing clubs of students be used for interaction by the administration periodically for a review of the activities and issues. This should be done atleast twice in one semester. A lunch or dinner is arranged once in each semester where students and faculty would be together.</p>	<p>It was planned to implement these decisions from autumn 2016 session which has unfortunately got delayed due to the situation in the valley.</p>

	<p>The HODs must organize an interaction with the students of each class once in a month. They may take alongwith one or more other faculty members who are not associated with that class.</p> <p>Saturdays must be utilized in curricular activities through clubs and departments.</p> <p>Sports activities should be increased.</p> <p>2. The departments must publicize the procurements made or procurements under process for laboratory development and other activities in the department through the Institute website and also by a departmental newsletter, managed by students under supervision of faculty.</p> <p>3. In order to attract more faculty members / officers to take up proctorial duties, the benefits for the same needs to be enhanced but simultaneously it needs to be conveyed that no staff member can decline any assignment given to him.</p> <p>4. The Wardens shall submit a report of their periodic visits to the hostel and interaction held with the hostel residents to the Director every fortnight.</p> <p>5. Since the class representatives are already in place, the departments should formalize interaction with these representatives and report of interaction must be kept on record.</p> <p>6. The BOG observed that since the FIR is understood to be against unknown persons as such no discussion is required as this stage.</p> <p>7. The evaluated answer script of the major examination must be got signed by the student after he goes through it. They must also record that he has received back the Minor exam scripts.</p> <p>8. Heads of the Departments must ensure that lower semesters are taught by senior faculty members.</p> <p>9. A booklet containing hostel rules and regulations and other information must be made available to every student at the time of admission in the Institute. This shall be ensured by the Dean Students Welfare.</p> <p>10. The Institute must organize motivational andbehavioural lectures by professional and eminent persons for the students in a structured manner under extracurricular activities.</p>	
BOG-92/07	To consider the framing of modalities for constitution of a Students Council.	

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Resolution No. 07/92	The BOG after detailed deliberations found that the model of Student Council at IEST Shibpur may be adopted by the Institute. However, before implementation, the model may be studied by a Committee including student nominee also for any changes that may be required.				
BOG-92/08	To consider the representations of the students for introduction of NCC in the Institute.				
Resolution No. 08/92	Approved. The programme details shall be worked out by the Institute for the same.				
BOG-92/09	Action taken on the decisions of the meeting held on 19-04-2016 in Delhi with student representatives				
Resolution No. 09/92	The Director, Prof. Rajat Gupta presented the action taken in respect of this item as detailed below:			Action initiated / completed as per the BOG orders.	
	S.No.	Decision	Action taken		BOG order
	1	A new Committee for students Grievance Redressal which has been constituted with two external members will do the fact finding now and its Report is likely to be submitted by 15th may, 2016.	Report already submitted and considered by BOG.		Orders are recorded in item no. BOG-92/06.
	2	BOG to consider the report and formation of students council and its modalities.	Considered by BOG on 03-06-2016.		Orders are recorded in item no. BOG-92/07.
3	BOG meeting likely to be held within 20th of May as per the	BOG meeting was scheduled on 27-05-2016 but had to deferred and	No orders required.		

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		convenience of Chairman.	was held on 03-06-2015.	
4	Optional external evaluation for minor one on written request and irrevocable basis.	Students were informed to give option through written notice but no one opted.	Record reported.	
5	Enhancement of medical facilities within 3-4 months.	Staff engagement is near finalization after advertisement and scrutiny. Equipment supply orders issued.	Record reported.	
6	Prefab two hostels having 80 rooms and prefab 15 class rooms likely to be completed within 6 months.	Work is going on satisfactorily.	Record reported.	
7	Some medical claims already borne by the Institute and those submitted the bills will also be reimbursed.	Reimbursement made on all claims.	Record reported.	
8	Food and fruit corner in the campus to be installed.	N.I. T. issued and these facilities will be soon	BOG ordered to make these operational by 30-06-2016.	

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			operational.		
	9	Encroachment of NIT land has already been taken up, however it will be vigorously pursued with State Government.	Matter already taken up with D. C. Srinagar.	BOG advised to write to Commissioner / Secretary, Higher Education of J&K Government also.	
	10	All National festivals to be celebrated.	Implemented.	Record reported.	
	11	Demands relating to improved facilities in the hostels will be expeditiously looked into.	System fast tracked.	Record reported.	
<p>The BOG advised that periodic reviews must be made on these issues and students taken into confidence about these during interactions.</p>					

**Table B.10.1.3r**

**To record action taken report on the decisions of 91st Board of Governors meeting, held on April 11, 2016 at 02.30 p.m. in the Committee Room of the National Institute of Technology Srinagar.**

BOG-91/01	To confirm the Minutes of the 90 <sup>th</sup> Board of Governors meeting of the Institute, held on December 30, 2015 11.45 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi.	
Resolution No. 01/91	Confirmed with inclusion of the comments received from Mr. S. P. Goyal, Joint Secretary, MHRD,	No action called for.



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	New Delhi.	
BOG-91/02	To record action taken report on the decisions of 90 <sup>th</sup> Board of Governors meeting, held on December 30, 2015 11.45 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi.	
Resolution No. 02/91	<p>Record reported. The following is instructed:</p> <ol style="list-style-type: none"> <li>1. A quantified report of the action taken be submitted in next meeting of BOG in case of resolution no. 10/90.</li> <li>2. In case of item no. BOG-90/11, it was noted that permission for these structures has been granted as G+2 as per existing norms. However the permission for G+5 to NIT Srinagar has been assured. It was thus advised that the grant of permission as G+5 from the concerned authority needs to be pursued vigorously.</li> <li>3. Mr. Firdous Ahmad Wani, Registrar who is on deputation be informed to join back the Institute as the regular Registrar availability is very essential given the work load of the post.</li> </ol>	<ol style="list-style-type: none"> <li>1. To be placed on the table.</li> <li>2. The Director met Hon'ble Chief Minister, J&amp;K regarding the issue who assured to expedite the matter for grant of approval.</li> <li>3. Will be intimated of the decision after confirmation of minutes of 91<sup>st</sup> meeting.</li> </ol>
BOG-91/03	To record report on the action taken by the Chairman, BOG in having approved engagement of temporary faculty for Spring Session 2016 against the vacant faculty positions.	
Resolution No. 03/91	Report recorded.	No action called for.
BOG-91/04	To record report on the stoppage of sitting fee amount to the officials of Ministry / attached Institutions for attending the	

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	meetings of Board of Governors, Finance Committee and BWC etc.	
Resolution No. 04/91	Report recorded.	No action called for.
BOG-91/05	To consider the recommendations of the constituted Committee to fix the superannuation age of Mr. Mohammad Farooq Mir, Assistant Librarian as 62 years.	
Resolution No. 05/91	In view of the recommendations of the committee at para (2) of their report, it was decided to refer the matter to MHRD for their opinion.	Matter is resubmitted to BOG in view of the fresh representation of the person and orders of Chairman, BOG on it.
BOG-91/06	To consider the recommendations of the constituted Committee with regard to leave entitlement to Adjunct Faculty in the Institute.	
Resolution No. 06/91	Since adjunct faculty is not a regular staff, earned leave is not admissible.	Notified for needful.
BOG-91/07	To consider the report of the committee constituted to examine the case of Dr. G. R. Khan.	
Resolution No. 07/91	Mr. S. P. Goyal, Joint Secretary, MHRD and member BOG, desired that copy of the minutes of Selection committee of his engagement in University of Kashmir may be obtained and put up at the next meeting of Board of Governors for approval of the case.	University of Kashmir is being approached.
BOG-91/08	To consider the two orders of Hon'ble High Court of J&K in matters related to Career Advancement Scheme (CAS).	
Resolution No. 08/91	The cases are pursued. However the grievances of faculty be fast tracked so that such cases do not arise or at least are minimized. It was strongly pleaded by the Institute administration that the service interests of the existing faculty needs to be protected which	The Grievance Committee for faculty has met twice recently and is scheduled again in June 2016 to give its final report.

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	otherwise would lead to a non-congenial environment as the affected faculty feels disgruntled which is not a healthy situation. The BOG noted with concern that there is need to address the grievances within the frame work of rules so that the faculty morale is boosted which is very essential for the development of the Institute.	
BOG-91/09	To consider the issues discussed in the brain storming session held on 10-04-2016 for appropriate advice and orders.	
	Item withdrawn.	No action called for.
BOG-91/10	To consider termination of service as Technical Resignation in favour of Prof. R. K. Wanchoo, former Director of the Institute.	
Resolution No. 10/91	It was decided to refer the case to MHRD.	Case will be referred to MHRD after confirmation of the minutes of 91 <sup>st</sup> meeting.
BOG-91/11	To consider the minutes and recommendations of the Finance Committee made at its meeting held on 11-04-2016 at 10.30 a.m. in the Committee Room of the NIT Srinagar.	
Resolution No. 11/91	Record reported on the minutes and the recommendations are approved.	No action called for.
BOG-91/12	To consider the recommendations of the Senate made at its meeting held on 08-04-2016 in the NIT Srinagar, Hazratbal Kashmir.	
Resolution No. 01/91	Record reported on the minutes of the Senate meeting. For granting of PDF, modalities from the IITs may be obtained and put up in the next BOG meeting for approval.	The details from IITs have been sought and shall be placed in next meeting of BOG.

*Table B.10.1.3s*

**To record action taken report on the decisions of 90<sup>th</sup> Board of Governors meeting, held on December 30, 2015 11.45 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi.**

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BOG-90/01	To confirm the Minutes of the 89th Board of Governors meetings of the Institute, held on September 28, 2015 11.00 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi.	
Resolution No. 01/90	Confirmed. The modifications incorporated in the minutes of the Finance Committee meeting dated 28-09-2015 shall also get included in these minutes.	Needful done.
BOG-90/02	To record action taken report on the decisions of 89 <sup>th</sup> Board of Governors meeting, held on September 28, 2015 11.00 a.m. in the NIT Transit House, Safdarjung Enclave, New Delhi	
Resolution No. 02/90	Report recorded alongwith the following decisions: In case of resolution no. 04/89 regarding Senate item 20/07 i.e. NIT Srinagar distinguished Alumni Award, it was decided that two awards shall be presented every year during the Alumni Meet and the constituted committee shall identify the awardees accordingly.	Orders noted.
BOG-90/03	To record report on the action taken by the Director in having approved engagement of two Electricians on contractual basis in the P&D Wing of the Institute.	
Resolution No. 03/90	Ratified.	No action called for.
BOG-90/04	To record report on the conduct of DASA 2016 by NIT Srinagar.	
Resolution No. 04/90	Report recorded.	No action called for.
BOG-90/05	To record report on the action taken by the BOG, BOG in having approved continuation of Mr. M. M. Shawl and Mr. P. L. Saproo.	

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Resolution No. 05/90	Report recorded. However, the advice of IFD may be sought so that it is ensured that there is no scope for errors in calculation of monthly consolidated emoluments in such engagements.	Order noted.
BOG-90/06	To ratify the action taken by the Chairman, Board of Governors in having authorized the Director to constitute the Departmental Visiting Committees.	
Resolution No. 06/90	Ratified.	No action called for.
BOG-90/07	To ratify the action taken by the Chairman, Board of Governors in having approved composition of a Committee for External Review.	
Resolution No. 07/90	Ratified.	No action called for.
BOG-90/08	To approve the minutes of Selection Committee of the Trainee Teachers	
Resolution No. 08/90	Recommendations of the Selection Committee of the Trainee Teachers are approved. Needful may be done so that the selected candidates can join IIT Delhi as Ph.D. scholars for the January 2016 session after submission of prescribed bond which has already been vetted by the Standing Counsel of the Institute. The maximum duration is 07 years which has been confirmed from IIT Delhi and included in the Bond.	Needful done. 08 Trainee Teachers have joined IIT Delhi w.e.f. January 2016, after completion of the formalities.
BOG-90/09	To consider the report of the Committee for mapping under Restructuring of Non faculty staff	

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<p>Resolution No. 09/90</p>	<p>The BOG noted that the proposal has been circulated to all the members as per the decision in the previous meeting. However, while no comment was received, Prof. Rather pointed out certain errors in the proposal during discussion. Chairman, BOG also observed that the Restructuring and the corresponding Mapping proposal is important requiring great care inasmuch as the structure / positions / posts proposed must take into account needs of the Institute in the foreseeable future. Further, mapping / deployment of the existing staff against the proposed structure / positions has to be done as per the prescribed rules ensuring at the same time that there is no or minimal possibility of any anomalies arising as a result of the exercise. It was, therefore, decided that the Director should get this proposal examined / reworked out by a small Group / Committee comprising Prof. G. M. Rather, member BOG and others. The concerned staffs from Personnel Department of the Institute require providing necessary assistance to this Committee and in fact, being actively involved in this exercise. Upon satisfying himself with the report of this Committee, the Director can put it up to the Chairman, BOG for final approval for implementing the same.</p>	<p>The proposal alongwith the report of the Committee has been approved by the Chairman, BOG and implemented accordingly.</p>
<p>BOG-90/10</p>	<p>To consider the report of the External Review Committee.</p>	
<p>Resolution No. 10/90</p>	<p>The BOG congratulated the Institute administration and staff for having succeeded to have the</p>	<p>Necessary steps have been initiated.</p>

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	external review done on time. The BOG advised to take necessary steps for implementing suggestions of the external review report.	
BOG-90/11	To consider grant of in Principle approval for construction of two new multi storied buildings as per approved Master Plan.	
Resolution No. 11/90	<p>During the presentation by Dean P&amp;D, it was revealed that at present as per LAWDA norms the building permission is restricted to G+2 but the proposals of the Institute prepared by CPWD are for G+5 blocks. It was further informed that the Government of J&amp;K Town Planning Department is working on the revised Master Plan of Srinagar City wherein a provision for permission for G+5 type structures is envisaged.</p> <p>Based on these facts the BOG:</p> <p>a) granted in-principle approval for the following two works as G+5 structures through CPWD subject to the permission by the concerned authorities:.</p> <p>Construction of Academic Block at an estimated cost Rs. 1,58,45,12,000/-.</p> <p>Construction of Multi facility Block at an estimated cost Rs.75,98,42,300/-.</p> <p>b) In case the permission of G+ 5 proposals is not granted the proposal shall be revised in terms of the cost of estimate and resubmitted to the BWC for fresh approval for the revised proposal.</p>	LAWDA has granted permission for G+2 structures at present but also intimated that as per revised Master Plan of Srinagar city, G+5 structures are being proposed for grant of permission. Accordingly the revised proposals have been framed and are being considered in the BWC meeting scheduled on 07-04-2016, the recommendations thereof will be placed in meeting.
BOG-90/12	To consider the report on the activities of the Innovation,	

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	<p>Incubation and Entrepreneurship Development Centre (IIEDC).</p>	
<p>Resolution No. 12/90</p>	<p>The BOG noted with appreciation the steps that have been taken by the Institute under the Centre. It was advised that the Vision and Mission statement should include Incubation very prominently. It was advised that the activities should be pursued as per the Vision and Mission statement and collaboration with similar setups in the country should be explored very effectively. Further, it was advised to publicize the activities undertaken by this centre and a quarterly or six monthly News-letters may be printed by the centre for this purpose in addition to other mediums of publicity.</p> <p>Further BOG agreed in-principle to the proposal of setting up of an independent Incubation Centre to support the industries, entrepreneurship and start up in the following areas and advised for preparation of a DPR with help and involvement of an appropriate outside agency, if required:</p> <p>Mechanical Engineering oriented activities          Chemical Engineering oriented activities          Civil Engineering oriented activities          Electronics &amp; Comm. Engineering oriented activities          Electrical Engineering oriented activities          Information Technology oriented activities</p>	<p>Action as per the decisions is underway.</p> <p>He Hon'ble Chairman, BOG reviewed the progress in this regard during his visit to the Institute on 28-03-2016</p>

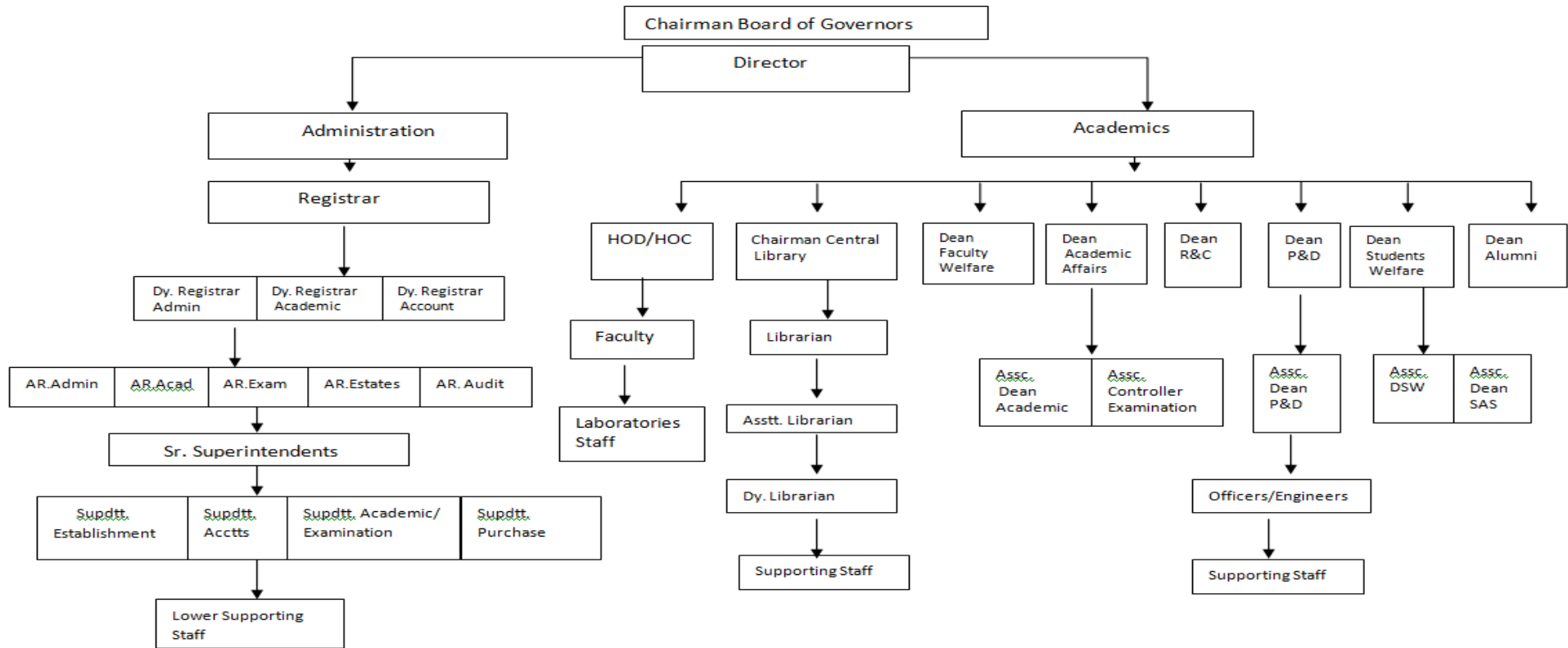
**Table B.10.1.3t**



10.1.4. Decentralization in working and grievance Redressal mechanism: (5)

10.1.4. (A) Organizational Structure

**Organizational Structure of NIT Staff**



**Figure B.10.1.4**

**Decentralization in Working: Faculty Development is delegated to the Dean Faculty Welfare:**

- Students' Academic Activities and Examination is being looked after by Dean Academic Affairs who further is assisted by Associate Dean Academics and Associate Dean Examination.
- Developmental works of the Institute is being looked by Dean Planning & Development who is being assisted by Associate Dean.
- Training and Placement is delegated to Dean Alumni and International Affairs.
- The Students Activities, Hostels, Security is being looked after by Dean Students Welfare.
- Research and Consultancy of the Institute is being looked after by Dean Research and Consultancy.
- Office Administration and other matters are being looked after by Registrar.
- The Departments and Centres are being looked after by Heads of Departments and Heads of Centres.

All the above arrangements report to the Director of Institute in their day- to-day official activities and assignments.

**10.1.4 B.Mechanism and Composition of Grievance Redressal system.**

The Institute receives grievance both online and off line. The online grievances are addressed through online mode after obtaining the relevant information for concerned quarters. The offline grievances are also responded through surface mail to the aggrieved parties.

Further for grievance Redressal of teaching and Non-Teaching staff committees are constituted to look into the complaints/ grievances from the aggrieved. The report of the grievance committee is forwarded to the Director for further necessary action and the corrective measures are taken. Following Grievance Committees have been constituted:

**1. Grievance Committees:**

- **For Faculty**

Prof. A. H. Mir	Chairman
Prof. A. A. Zargar	Member
Prof. Roohie Naaz	Member
Prof. S. A. Lone	Member
Dr. Nisar Ahmad Mir	Convener
- **For Non-Faculty**

Prof. A. M. Shah	Chairman
Professor Kashmir University	
Prof. A. A. Zargar	Member
Professor Electrical Engg. Deptt.	
Prof. G. M. Rather	Convener
Professor ECE Department	
- **For Students**

Dr. Abdul Liman	Chairman
Dr. Neyaz Ahmad Sheikh	Member

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Dr. Atiqur Rehman	Member
Dr. M. A. Rather	Member
Er. Tanveer Rasool	Member

**2. For Anti-Ragging Committee**

Dr. Abdul Liman	Chairman
Dr. Neyaz Ahmad Sheikh	Member
Dr. Atiqur Rehman	Member
Dr. M. A. Rather	Member
Er. Tanveer Rasool	Member
Concerned HOD	Member
Medical Officer	Member
Dy. Registrar (Academics)	Member
Asstt. Security Officer	Member
Two Students Representatives	Member

**3. The Internal Complaints Committee under the provisions of “The Sexual Harassment of Women at work place (Prevention, Prohibition and Redressal) Act 2013 is constituted as under for our Institute:**

Prof. Roohie Naaz	Chairperson
Prof. CSE Department	
Prof. Nahida Tabasum	Member
Prof. Pharmaceuticals Sciences KU	
Prof. Babar Ahmad	Member
Prof. Mechanical Engg. Deptt.	
Dr. Kowsar Majid	Member
Associate Professor Chemistry	
Dr. Seemin Rubab	Member
Associate Professor Physics	
Mr. M. Y. Kuchay	Member
Section Officer Cash & Compilation	

**10.1.5. Delegation of Financial Powers (5)**

The Accounts of the Institute are in the name of Director. He is empowered to sanction the requisite amount of money/ proposes upto Rs. 25.00 Lacs beyond this amount the proposal needs to be approved by Chairman BOG. The financial Cheques /transactions are jointly signed by Director and the Registrar.

Further, the HOD's/HOC's are delegated to spend Rs. 15,000/- for purchase of consumables and repairs for smooth running of the departments/centers.

**10.1.6. Transparency and Availability of Correct Information in Public Domain (5)**

The Institute has a dynamic website and all the relevant information is placed on the Institute Website [www.nitsri.ac.in](http://www.nitsri.ac.in) for the information of Public.

**10.2 Budget Allocation, Utilization and Public Accounting at Institute level.(15)**

**10.2.1. (A) Quantum of Budget Allocation for Three Years**

Financial Year	Budget			Expenditure			Total Number of Students
	Non-Recurring	Recurring	Total Budget	Non-Recurring	Recurring	Actual Budget	
2017-18	6770.00	6320.00	13090.00	6302.00	8428.00	14730.00	
2016-17	3400.00	5500.00	8900.00	3395.00	6388.00	9783.00	
2015-16	2900.00	6500.00	9400.00	2635.00	5554.00	8189.00	

Table B.10.2.1

### 10.2.2 Utilization of Allocated Funds (5)

#### A. Budget utilization for three years:

Financial Year	Budget	Expenditure	Percentage of Utilization
2017-18	130.90 crores	147.14 crores	112.40%
2016-17	89.00	97.83 crores	109.92 %
2015-16	94.00 crores	81.89 crores	87.11%

Table B.10.2.2

The Funds allocated have been well utilized for:

- Developing lab facilities.
- Additional labs were setup.
- New equipments were added to different labs.
- Library and Internet facilities were improved.
- Maintenance of workshop and lab equipments.
- Training programs for faculty members and non-teaching staffs.
- Extracurricular activities of students.

### 10.2.3. Availability of Audited Statements on the Institute Website. (5)

#### A. Availability of Audited Statement on website

The Audited statements for the last three years are available on the Institute Website

[www.nitsri.ac.in](http://www.nitsri.ac.in).

### 10.3 Programme specific Budget Allocation, Utilization(30)

#### 10.3.1. (A) Quantum of Budget Allocation for Three Years.

Financial Year	Budget			Expenditure			Total Number of Students
	Non-	Recurring	Total	Non-	Recurring	Actual	

Criterion 10

	<b>Recurring</b>		<b>Budget</b>	<b>Recurring</b>		<b>Budget</b>	
2017-18	6770.00	6320.00	13090.00	6302.00	8428.00	14730.00	
2016-17	3400.00	5500.00	8900.00	3395.00	6388.00	9783.00	
2015-16	2900.00	6500.00	9400.00	2635.00	5554.00	8189.00	

**Table B.10.3.1a**

**Specific Allocation**

<b>Items</b>	<b>BUDGETED IN 2017-018</b>	<b>EXPENSES IN 2017-018</b>	<b>BUDGETED IN 2016-017</b>	<b>EXPENSES IN 2016- 017</b>	<b>BUDGETED IN 2015- 016</b>	<b>EXPENSES IN 2015 - 016</b>
<b>Laboratory equipment</b>	98000000.00	97778000.00	160000000.00	152906000.00	90000000.00	85847000.00
<b>Computer Software</b>	25000000.00	24500000.00	45000000.00	4090000.00	500000.00	418300.00
<b>Library</b>	33500000.00	32500000.00	NIL	NIL	11000000.00	10246942.00
<b>Maintenance And Spares</b>						00.00
<b>R&amp;D</b>						00.00
<b>Training and Travel</b>						00.00
<b>Misc. Expenses*</b>						00.00
<b>Lab consumable</b>	7000000.00	6903000.00	6000000.00	2065000.00	5000000.00	1151000.00
<b>Total</b>	<b>16350000.00</b>	<b>161681000</b>	<b>2110000.00</b>	<b>169061000.00</b>	<b>106500000.00</b>	<b>97663242.00</b>

**Table B.10.3.1b**

**10.3.1.(B) Justification of Budget Allocated**

- As per the requirement of Institute New Labs were established and New Equipments and accessories had to be procured.
- New Facilities were introduced for extension programmes of R&C Wing.
- Existing labs were upgraded and improved for ambience and facilities.
- Purchase of New Softwares and Renewal of Softwares already existing.
- Purchase of E-Resources, E-Books and E-Journals.
- Faculty members were encouraged to attend faculty development programmes.
- Trainings programmes for non-faculty staff were held for upgradation of soft skill.

**10.3.2. Utilization of Allocated Funds:**

<b>Financial Year</b>	<b>Budget</b>	<b>Expenditure</b>	<b>Percentage of Utilization</b>
2017-18	130.90 crores	147.14 crores	112.40%
2016-17	89.00	97.83 crores	109.92 %
2015-16	94.00 crores	81.89 crores	87.11%

*Table B.10.3.2*

The funds allocated have been well utilized for:

- Developing of lab facilities and upgradation of existing facilities.
- Purchase of equipments for different labs
- Library resources and internet facilities
- Workshop maintenance and lab consumables.
- Training of faculty and non-faculty.

**10.4. Library and Internet (20)**

**10.4.1 Quality of leaning Resources**

The NIT Srinagar library supports the Teaching, Research & and other related programmes of the institute. The Library has a good collection of documents that comprises of Books, Journals, Theses, Video cassettes, Learning Resources (LRs)& Compact discs in the field of Engineering, Science, Management, Literature & Humanities.

The library has computerized data of whole of its collection using **KOHA software** and is in the process of computerizing all its activities.

The library has a separate section for **SC/ST &OBC Students**.

Library Established in	1960
Library Members	3217
Number of Books	48575
Reprographic facility	Xeroxing
Data usage of the Library	70-80% (in terms of Books issued to faculty& students)
Annual Budget	3crore`
Timing during working days	8.45 am to12 pm
Timing on Sundays &Holidays	10am to 5pm

*Table B.10.4.1a*

**Layout and Floor plan**

**Ground Floor**

**The ground floor houses the following important sections.**

- Reading room
- Periodical section

*Criterion 10*

- Circulation section
- Audiovisual Section
- Acquisition Section
- Stacks I
- Chairman, Library Committee's Room
- Librarian's room
- Office

**First Floor**

- Textbook & Reference section
- Stacks II

**Second Floor**

- Back Volume Section

**Library Mission**

- To promote the technical knowledge
- Generation and application of knowledge & resources
- Effective dissemination of knowledge.
- Library automation and networking for remote access of online electronic resources.
- Improve the library resources.
- Enhance the student experience.
- Build the digital research environment.
- Provide convenient and customized access to information Library Resources

The library has a wide range of resources on Engineering, Sciences, Humanities & Social Sciences.

<b>Collection</b>	<b>Size (number)</b>
Books	48575
Bund volumes of journals	10070
Video cassettes	496
Learning resources	36
Compact discs	273
Books in text book section	8024
Books in stacks section	40451
Books in SC,ST section	9898

***Table B.10.4.1b***

<b>Year</b>	<b>Number of New Titles Added</b>
2017-2018	164
2016-2017	1193
2015-2016	4680

***Table B.10.4.1c***

**E-Library (Electronic/On-line resources/e-resource 2018)**

E-library provides collaborative search of all type of e-resources/on-line resources such as e-journals and books

**E-Books**

Central library procured different type of e-books, online books for students and faculty via IP range in the campus. The different departments can also be access various type of e-books such as text books and reference books in the electronic form.

**1. Wiley**

Subjects Covered	URL	Total cost
Civil Engineering & Construction, Electronics &Electrical Engg, Computer Science &IT, Chemistry &Chemical Engg, Physics, Maths & Statistics &Mechanical Engineering.	<a href="http://onlinelibrary.wiley.com">onlinelibrary.wiley.com</a>	\$88694

*Table B.10.4.1d*

**2. Springer Nature**

Subjects Covered	URL	Total Cost
Chemistry & Materials Science, Computer Science, Engineering, Mathematics &Statistics, Physics &Astronomy	link.springer.com/open url?genre=book&isbn=978-1-4471-6807-2	€52,759.20

*Table B.10.4.1e*

**3. Elsevier**

Subjects Covered	URL	Total Cost
Chemical Engineering, Chemistry ,Engineering, Materials Science, Mathematics,Physics & Astronomy, Computer Science	sciencedirect.com	\$102136

*Table B.10.4.1f*



**4. Pearson**

Subjects Covered	URL	Total Cost
Chemistry, Civil Engineering, Computer Science & IT, Electronic Telecommunication, Mathematics, Mechanical Engineering, Physics	lib.myilibrary.com	INR 15.64059

**Table B.10.4.1g**

**E-Journals**

**E-Resources are accessible to our Institute through eShodhSindhu (eSS)**

**E-resources Subscription Period**

ACM Digital Library	January2018toDecember2018
ASCE Journals	January2018toDecember2018
ASME Journals Online	January2018toDecember2018
Economic & Political Weekly	April 2018 to March 2019
Institute for Studies in Industrial Development	April 2018 to March 2019
JGatePlus(JCCC)	January2018toDecember2018
Oxford University Press	April 2018 to March 2019
Springer Link 1700 Collection+ Nature Journals	April 2018 to March 2019
Web of Science Lease Access	January2018toDecember2018

**NDL e Resources**

- |                              |                               |
|------------------------------|-------------------------------|
| 1. World E-Book Library      | September 2017 to August 2018 |
| 2. South Asia Archives (SAA) | National Licensing            |

URL<http://www.inflibnet.ac.in/ess/eres.php.?memID=357>

**Back Files of Science Direct Journals from M/S Elsevier** on the following subjects are now available from **Vol.1, Issue1** up to the year **1994**.

Subjects Covered	Year	URL	Total Cost
Engineering & Technology	Pre 1995	sciencedirect.com	\$193,874
Materials Science	”	”	
Chemical Engineering	”	”	
Computer Science	”	”	
Inorganic Chemistry	”	”	

*Criterion 10*

Organic Chemistry	”	”	
Mathematics	”	”	
Business Management Accounting	”	”	

**Table B.10.4.1h**

<b>Subjects Covered</b>	<b>URL</b>	<b>Total Cost</b>
Science Direct ( 8 subject collection)	<a href="http://www.sciencedirect.com/">www.sciencedirect.com/</a>	
IEEE/IET Electronic Library (IEL) online	<a href="http://ieeexplore.ieee.org/">http://ieeexplore.ieee.org/</a>	INR 3109669

**Table B.10.4.1i**

**BIS &ASTM Standards on our IP range**

<b>Subjects Covered</b>	<b>URL</b>	<b>Total Cost</b>
BIS	<a href="http://standards.bsb.co.in/">http://standards.bsb.co.in/</a>	INR 1248345.60( for 3 Years)
ASTM	<a href="http://compass.astm.org">http://compass.astm.org</a>	INR 744420.44

**Table B.10.4.1j**

**Services**

**Membership**

All the students, faculty members, research scholars & administrative staff can register themselves for the membership of the library. The membership form is available at the circulation counter and the same is required to be attested by the Head of the Department/Section.

The number of books borrowed by users is as follows:

<b>Category</b>	<b>Number of Books</b>	<b>Duration</b>
Faculty	10	30 days
Research Scholar	5	15 days
Student	3	15 days
Supporting Staff	2	15 days

**Text Book & Reference Section**

The textbook and reference section remains open from 8.45 a.m.to 9.30p.m. on all working days and from 10.a.m. to 4.00 p.m. on weekdays & holidays. The books available in this section can be consulted in the library only.

**Stacks section**

The books available here are meant to be issued to the faculty, students, research scholars and other readers as per the criteria given in the library rules.

**Video Library**

### Criterion 10

The library has collection of video cassettes, CDs, & LRs. They are kept in the audio visual section of the library. This section remains open on all working days from 8.45 AM to 5 PM.

### Photo copying facility

The photocopying facility is provided to all students and faculty at subsidized rates.

### Search

OPAC (Online public access catalogue)

Science Direct

E-Resources

Video library

### Our Team

Prof. M S Mir.	Chairman Library Committee M 9469425113, <a href="mailto:shafi@nitsri.net">shafi@nitsri.net</a>
Dr. Mohammad Hanief	I/C Library M 9906763424 <a href="mailto:hanief@nitsri.net">hanief@nitsri.net</a>
Mr . M Farooq Mir	I/C Deputy Librarian <a href="mailto:Tel:9469804611Farooqmir58@gmail.com">Tel:9469804611Farooqmir58@gmail.com</a>
Technical Asstt. (SG)	Mrs Saymee M 9858943292 <a href="mailto:saymee786@rediffmail.com">saymee786@rediffmail.com</a>
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Technical Asstt	Mrs. Tahira
Technical Asstt	Mr. M Y Rather
Assistant (SG)	Mr. Bashir A Kawoosa 9797073820 <a href="mailto:bashirkawoosa@gmail.com">bashirkawoosa@gmail.com</a>
Assistant(SG)	Mrs.Dilshada
Assistant(SG)	Mrs.Neelofar
Jr. Lib assistant	Mr. Shabir Ahmad Sheikh
Orderly	M Yousuf Mir
Orderly	Mr. Gh Mohammad Sheikh
Contractual	Four

**Table B.10.4.1k**

### Library Organization

The Library is organized into the following functional Units:

- Acquisition Section
- Processing Section
- Periodical Section
- Circulation section
- Stacks I
- Text book & Reference Section
- Stacks II
- Reprographic Section
- Audio Visual Section
- Back Volume Section

**Members of the Library Committee**

1. Prof. M. S. Mir	Chairman Library Committee
2. Dr. M. Hanief	I/C Library
3. Mr. M. Farooq Mir	I/C Deputy Librarian
4. Prof. B. A. Mir	Member
5. Prof. M. F. Lala	Member
6. Dr. (Mrs.) Rubab	Member
7. Dr. Niyaz Ahmed	Member
8. Dr. J. A. Bandy	Member
9. Dr. JavidIqbal	Member
10. Dr.(Mrs.) Farida	Member
11. Dr. M. A. Rather	Member
12. Dr. Atik ur Rehman	Member
13. Dr. Shabir Ahmed	Member
14. Dr. Ahsan Chesti	Member

**10.4.2 Internet**

Name of the Internet Provider	NIC NKN; BSNL
Available Bandwidth	NIC NKN :1 GBPS (1:1) & BSNL: 250 Mbps
Wi-Fi Availability	YES
Internet access in labs classrooms library and offices of all departments	YES
SECURITY ARRANGEMENT	YES HARDWARE FIREWALL

*Table B.10.4.2a*

**Wi-Fi Details**

NIT Srinagar is a Wi-Fi enabled campus with its access controlled by hardware Firewall installed in Computer Service Centre and Wi-Fi access points in various departments including both Boys and Girls hostels.

Device	Department	Coverage
Dlink Access Points	Computer Service Centre(1)	50 Meters radius without obstructions
Dlink Access Points	Direction Office (2)	50 Meters radius without obstructions
Dlink Access Points	CSE Staff Room (1)	50 Meters radius without obstructions
Dlink Access Points	Training & Placement Cell (4)	50 Meters radius without obstructions
Dlink Access Points	IT Staff Room (1)	50 Meters radius without obstructions
Dlink Access Points	Humanities Department (1)	50 Meters radius without obstructions

*Criterion 10*

Dlink Access Points	Physics Department (1)	50 Meters radius without obstructions
Dlink Access Points	Medical Unit (1)	50 Meters radius without obstructions
Dlink Access Points	Guest House (1)	50 Meters radius without obstructions
Dlink Access Points	Boys Hostels (92) Girls Hostels (15)	50 Meters radius without obstructions

***Table B.10.4.2b***

**Security Details**

<b>S.No</b>	<b>Device</b>	<b>Function</b>
1	Sophos Firewall (Hardware)	Security Controller
2	Quick Heal (Seqrite) Antivirus Software	Anti Virus

***Table B.10.4.2c***

**ANNEXURES**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR**  
**Hazratbal, Kashmir-190006.**



**VISION DOCUMENT**  
**2025**

**NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR,  
HAZATBAL, KASHMIR.**

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## ANNEXURE-I

### INTRODUCTION:

India is one of the largest technical manpower producing countries of the world. India's vision to become a developed country by the year 2020 can only be achieved through creating income generating activities.

Technology is the means to creating income generating activities. It is the basis for creating wealth for elevating the socio-economic status of the people of a country. A nation can derive strength through development of technology. Technological strength depends upon: (i) *talented manpower*, (ii) *technology base (knowledge)* and (ii) *infrastructure for industrial growth*. A measured combination of these factors together with the availability of natural resources and a huge market provides a country opportunity for developing economic and social status, which ultimately generates a self-supporting prosperous society. India possesses all these

Educational institutes, especially those dedicated to Science & Technology, have to take the lead. A technical institute is one of the different wings of science and its vision/mission must aim at supplying quality technical manpower for implementing the vision and mission of the country.

NIT Srinagar will provide dedicated service for the fulfilment of the aspirations of individual as part of that of the nation as a whole. It will work to provide engineers and technologists who would be leaders in their field of work, participate in creativity, research, design, development and technology management in the country to meet global challenges to our society and industry. This unique endeavour will focus our effort towards the common goal and help in shaping the future of our country. NIT Srinagar will play a vital role in this endeavour by creating excellent resources and facilities for research and development as well as a large pool of highly trained engineers. It will contribute its share in converting India's large population from a liability into trained human capital.

### Vision of NIT Srinagar

To establish a unique identity of a pioneer technical Institute for NIT Srinagar by developing a high quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region in particular keeping in view global challenges.

### Mission of NIT Srinagar

- (1) The broad mission of NIT Srinagar is to create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture with international standards.
- (2) Technically educated and broadly talented engineers, future innovators and entrepreneurs, graduate with understanding the needs and the problems of the industry, the society, the state, and the nation.
- (3) We promise to inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineers.

### Goals

- i) ***Providing Quality Education to the Students***
  - ✓ To offer effective teaching-learning to students.
  - ✓ To provide the knowledge, skills and attitudes to UG and PG students necessary for their being able to be distinguished globally and socially responsible.



## *Annexures*

- ✓ To train the students to learn to meet changing needs due to rapid technological advancement, to offer society the necessary technology and to actively participate in all round socio-economic development programmes.
- ✓ To provide the best, relevant, reliable and high-quality education by focussing on need-based specific solutions.
- ✓ To provide the framework to develop the inherent skill in students, by taking initiatives for technology innovation skill in the students, through sincere and target based, dedicated efforts.

### *ii) Generation of Infrastructure for Research Activities*

- ✓ To provide facilities, infrastructure, inspiration and resources to conduct meaningful research of social relevance along with development of indigenous materials, capacities and technologies.
- ✓ To act as centres of excellence in technical education catalysing absorption, innovation, diffusion and transfer of high technologies for improved productivity & quality of life at national and global level.
- ✓ To keep in consideration the needs of the region in regard to local needs, relevance, strength and limitations and provide community service.

## **Objectives**

### ***Effective Teaching-Learning & Research Environment***

- ✓ To create an environment for effective teaching-learning by encouraging students and faculty to nurture their intellectual curiosity, and scientific and research temper.
- ✓ To increase research and consultancy activity, with options for incentives and encouragement, to motivate staff and students to actively engage in research activities in collaboration with industry and R&D Centres.

### *i) Continuing Education Programs*

- ✓ To encourage organisation with participation of staff and students in in-house and outside training programs, seminars, conferences and workshops on continuous basis.
- ✓ To increase the number of continuing education programmes.
- ✓ To provide opportunities for continuous updating in the knowledge of faculty through faculty exchange from premier institutions and industries.
- ✓ To increase interaction with educational and other research institutes.

### *ii) Institute-Industry Linkage*

- ✓ To increase Institute-Industry interaction and to generate strong linkage with industry.
- ✓ To up-grade, develop and transfer Technology.
- ✓ To exchange faculty and working personnel from industry.
- ✓ To encourage active participation of alumni in resource generation, planning and development.

### *iii) Institute–Society Linkage*

- ✓ To provide society with necessary consultancy and training to solve local problems by organising community development programs.
- ✓ To create awareness on the consequences of Environmental Pollution.

## *Annexures*

- ✓ To increase demand and pay packages of the student.
- ✓ To encourage and train in development of entrepreneurship

## **Methodologies**

### *i) Qualities and Conditions of Staff*

- ✓ By imparting value education to all people, especially the engineering community of the country.
- ✓ Induction of highly qualified, talented, competent & motivated faculty, and trained & dedicated supporting technical and administrative staff.
- ✓ By improving in-service conditions of faculties and technical staff commensurate to that of the industry to attract best faculty and staff.
- ✓ By introducing award of merit, recognition and sabbatical leave to performing faculty and staff.
- ✓ Establishing excellent academic support facilities (laboratory, library, Internet etc.) required for good education on continuous basis.

### *ii) SWOT Analysis and Restructuring*

- ✓ Identifying particular areas of technology needed based on SWOT analysis (examining the existing facilities).
- ✓ Identifying the problems of J&K.
- ✓ Reforming regulations and curriculum by introducing greater flexibility to courses.
- ✓ Introduction of IT-enabled management in all activities of institute.

### *iii) Strengthening Research Oriented Activities*

- ✓ Submission of concrete proposals to funding agencies for necessary grant.
- ✓ Establishing/strengthening of R&D facilities in institute in collaboration with industries.
- ✓ Developing more research-oriented laboratories and centres.
- ✓ Involving students in innovative technology projects.
- ✓ Providing research & development oriented education.
- ✓ Creating national/international collaborative programmes.
- ✓ Introducing need based more number of UG, PG & research programmes.
- ✓ Establishing network-link amongst NITs for resource and expertise sharing.

### *iv) Introduction of Monitoring and Control Mechanism*

- ✓ Introducing a regular monitoring and control mechanism by establishing procedures and methodologies for assessing outcome of all actions taken and taking appropriate actions, wherever required, for restructuring.

## **Output Indicators**

### *i) Q-Resource MP and Academic Environment*

- ✓ Increase in qualified (minimum PhD) & talented faculty.
- ✓ Increase in qualified technical staff.
- ✓ Increase in visits of adjunct/visiting faculty from industry.
- ✓ Lectures by distinguished professionals from industry and academic institutes.
- ✓ Exchange programs at national & international level.
- ✓ Increase in state of the art laboratories in cutting edge technologies.

## *Annexures*

- ✓ Meaningful use of class rooms and laboratories, equipped with latest tools.
- ✓ Increase in non-formal training to industry and other educational institute (Executive/staff development Programme).
- ✓ Increased utilisation of infrastructure facilities in terms of man-hours by sharing the facilities with the other academic institutions.

### *ii) Infrastructure and Administrative Reforms*

- ✓ Development of state-of-the-art infrastructure in terms of building (offices, Lecture theatres, new laboratories, new departments and centres, hostels, faculty and staff residences), equipment, library, video conferencing & media centre, medical, road, electricity, water supply, sanitation, telecom and Internet facilities, security, recreational facilities, environment and ambience.
- ✓ Administrative reforms (MIS, Transparency and self-monitoring mechanisms, autonomy, well defined responsibilities & accountability, maintenance etc.).
- ✓ Establishment of industry sponsored chairs.
- ✓ Nurture entrepreneurs.
- ✓ Increase in resource generation through alumni, consultancy, fee etc.
- ✓ Increase in community services to payback to society.

### *iii) Research Activities*

- ✓ Increase in participation in national and international conferences.
- ✓ Increase in faculty visit/training/collaborative ventures with industry, research organisations and other academic institutions of repute in India & abroad.
- ✓ Increase in research publication, patents and technology transfer to industry.
- ✓ Increase sponsored research projects and consultancy.
- ✓ Increase in Ph.D. and post-doctoral research.

### *iv) Upgradation of Library Facilities*

- ✓ *Construction of new library building with adequate space.*
- ✓ *Modernisation of library facilities.*
- ✓ *Providing Independent robust internet connectivity.*
- ✓ *Creating facilities to access e-resources through internet.*
- ✓ *Creating facilities to access e-resources within the library.*
- ✓ *Development of sufficient manpower in the library.*
- ✓ *Completion of computerisation of the library.*
- ✓ *Digitization of rare references and theses.*
- ✓ *Improve Training of library staff.*

### *v) Boost in Academic Activities*

- ✓ Increase in student strength at M. Tech. and PhD level (restructuring the existing programmes & introducing new programmes).
- ✓ Increase in foreign students' intake.
- ✓ Increase in degree programmes.
- ✓ Introduction of new innovative programs like Dual degree program, MS by research program.
- ✓ Increase in departments and centres of excellence.

## *Annexures*

- ✓ National and Global Accreditation Certification and licensing for global competitiveness as per GATS (Mode - 2 and Mode – 4).

### **Identification of Technologies That NIT Srinagar will put thrust on**

Though NIT Srinagar has to keep pace with national and global trend in the development of technology, it has its own strengths and weaknesses, specific obligations and socio-economic responsibilities. NIT Srinagar needs to give greater impetus to all round development to reduce the gap in progress that has been created because of two decades of uncertainty. As a step forward in this direction, following thrust areas have been identified with Vision-2025 which is linked to major areas in advanced technologies, technologies with socio economic implications, strategic technologies and technologies to make J&K state self-reliant.

#### **A) Agriculture and Food processing**

##### **i) Agriculture Bio- Technology**

- High yielding crops & terminator gene
- High nutritional & medicinal value crops
- Food/commodities high shelf life and taste (Plant pathology)
- Highly tolerance & pest resistant crop
- New variety of agriculture produce (GM) and quality improvement

##### **ii) Food and fruit processing, packaging & storage technology**

- Packaging & transportation without damage
- Processing & healthy preservation without losing nutrient
- 

#### **B) Infrastructure (Social & Industrial)**

##### **i) Housing & Land development**

- Low cost rural housing
- Smart and energy efficient urban housing
- High rise buildings
- Mechanized Construction & modular construction
- Earthquake resistant construction
- Secured demolition technology
- Non-invasive and quick geo-technical explorations
- GIS, GPS and Remote sensing
- Utilization of underground space
- Health monitoring of the structures
- Structural green building technology.

##### **ii) Transportation**

- High-speed (Rapid) surface & sub-surface transport
- Air transport and Airports

##### **iii) Communication**

- Wireless technology and network sensors
- Satellite & space (inter-planet) communication technology
- Global high speed data transfer

## *Annexures*

- Signal Processing
- Telemedicine

### **iv) Urban & Rural Planning and Management**

- Solid waste management and utilisation
- Electronic & toxic waste management
- Water treatment
- Rain water harvesting, ground water recharging.
- GM bacteria for waste management.

### **v) Technology for Local and Regional Development**

- Avalanche & Landslide studies
- Foundations on slopes
- Prevention of land erosion.
- Preservation of tourist attractions viz. Dal Lake etc.

## **C) Resource Management**

### **i) Energy Engineering**

- Sources: Hydro, solar, wind, thermal, nuclear, fuel cell
- Alternative sources and resources of energy
- Renewable organic (bio) fuel
- Energy storage devices
- Electric Power: Generation, Transmission and distribution
- Energy audit and loss minimization
- Development of Energy efficient technologies
- Sensor based use of energy appliances.

### **ii) Water Resource Management**

- River linkage
- Irrigation canals
- Rain water harvesting and ground water recharge

### **iii) Environment, Ecology & Sustainability**

- Environmental impact assessment and audit
- Macro engineering the environment and weather
- Weather forecasting
- Global warming
- Development of Eco-friendly (Green) technology
- Waste management

## **D) Disaster Mitigation & Management**

- Earthquake.
- Flood & drought
- Widespread fire in forest or in man-made infrastructure
- Predictions and post disaster rehabilitation

## **E) Technology Management**

- Education technology and distance learning

## *Annexures*

- Knowledge Management
- Technology development, transfer, dissemination and absorption
- Development of indigenous technology (substitute of imported technology)
- Entrepreneurship
- Sustainability in resource generation and technology development
- User-friendly and Safe Technology
- Research & Development Management

### **F) Development of Newer and Advanced Technologies**

- Computational Fluid Dynamics
- Embedded technology and Real time Systems
- VLSI
- MEMS and NEMS
- Nano Technology & Bio-Nanotechnology
- Advanced sensors & Network sensors
- Application of Artificial Neural Network (ANN) & Fuzzy Logic.
- Performance Based Seismic Design.

### **G) IT & Services**

- Internet and digital network services
- E-governance
- Technology empowerment of mass
- Net security
- Software development for CAD etc.
- Telemedicine.

## **SWOT Analysis**

NIT Srinagar has identified its own thrust areas based upon its current strengths, capabilities, facilities, interests and future projections incorporating diverse needs and local conditions. A SWOT analysis is presented below for the NIT Srinagar while finalising its vision, mission, goals, policy guideline, strategies, action-plans, and expected outcomes, as stated on previous pages.

### **A) Strengths**

#### ***i) Academic Sector***

- Good quality faculty.
- Creamy layer of students.
- Full academic autonomy and university status.
- Adherence to academic calendar with regular academic sessions.
- Periodic updating of curriculum.
- Number of P.G. programmes offered.
- Well-equipped laboratories.
- Conducive ambience and well-endowed computational and academic infrastructural facilities.
- Good placement record.
- Developing countries' students come to NITS for higher studies.

#### ***ii) Non-Academic Sector***

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- Financial autonomy.
- Reasonably good funding.
- Good pay package for the staff-
- Brand image from more than 50 years of standing.
- Alumni in Senior/influential positions.
- Professional Board of Governors with administrative autonomy.

### **B) Weaknesses**

#### *i) Academic Sector*

- Inadequate and insufficiently trained supporting technical staff.
- Inadequate sophisticated equipment and labs in the areas of emerging technologies & cutting edge disciplines for post graduate teaching and research.
- Inadequate educational technology facilities according to global norms.
- Low research and consultancy output due to inadequate research facilities.
- Teaching is curriculum centric rather than learning centric (Inadequate emphasis on problem solving, laboratory experimental design and simulation).

#### *ii) Non-academic Sector*

- Work culture is still driven by old REC legacy.
- Less than needed emphasis on overall personality development of student.
- Inadequate emphasis on entrepreneur skill development in students.
- Inadequate linkages with industry and community.
- Inadequate administrative skilled staff/officers.

### **C) Opportunities**

#### *i) Academic Sector*

- Scope of providing world class education in cost effective manner.
- Increase in intake of UG, PG & PhD students as mandated by MHRD.
- Increase in research activities: PhD and sponsored research.
- Scope of establishing centre of excellence and advanced studies.
- To train technical supporting staff.
- International and national academic collaborations and joint ventures with industries.

#### *ii) Non-academic Sector*

- Boom in industrial development puts demand for quality technical manpower.
- MHRD's strong support for funds and autonomy.
- Scope of innovating new products/processes/designs and acquire patents.
- Scope of tapping Alumni experience; building corpus fund, developing labs, chair professorships, collaborative programs with universities/ industries etc.
- Increased interaction with industries.
- Tapping natural resources available in various parts of the country including different parts of J&K.

## **Threats**

## *Annexures*

### ***i) Academic Sector***

- Lack of good faculty may permit mediocrity to overtake excellence.
- Overloading of faculties by Academic & Administrative activities results in the decrease in the pace of progress in research activities.

### ***ii) Non-academic Areas***

- More attractive opportunities outside NIT Srinagar, in terms of remoteness from the heart of country, tedious transportation facilities, pose a threat to attract and retain good faculty and technical staff.
- Lack of proper transportation facilities through Road/Rail resulting slower development of infrastructure at NIT Srinagar.
- Boom in self-financing institutions.

## **Concluding Remarks**

Technical education has been the driving force in supporting industrial growth, creating healthy economic status, generating employment opportunity, eradicating poverty and all round development of society. NIT Srinagar has set its vision-mission'2025 with the aim of generating technically sound manpower, which will provide necessary technical support at both the national and international level. It is envisaged that there will be growing challenges to technical education in the coming years as global competition; technology advances, new markets etc. Shape the future. It is believed that this vision document will play the role of guideline towards fulfilling our common goal and in helping shape the future of the country.

J&K is lagging far behind the country's average development mark in almost all sectors: e.g., industrial growth, employment opportunity, transportation, education, economic condition, health etc. Being a technical institute of national importance, situated in the extreme north, NIT Srinagar would like to play a vital role in the upliftment of the quality of life of all sections of society of the region. Although a series of measures have been initiated by Government of India to implement various sponsored programmes, many more are needed to bring the general development status of this region to the level of the best in the mainstream. Therefore, NIT Srinagar has set its mission to provide cutting edge technology for this region by committing itself directly as well as indirectly to the needs of this region.

It may be pointed out that, at present NIT Srinagar has a scenic campus situated on the banks of the famous Dal Lake. The present land on which, it is built is 67 acres, which is far less than what is required for fulfilment of the vision. Therefore, a proposal for establishment of an additional New Campus comprising of 250 Acres is already under process.

The details of the existing branches of studies, proposed advanced technologies, technologies with socio-economic implications, student intake etc. along with new infrastructures required up to 2025 for making National Institute of Technology Srinagar a centre of academic excellence are highlighted in *Appendix-A*, attached herewith.

## **Abbreviations Used**

**CE**= Civil Engineering Department

**EE** = Electrical Engineering Department

**ME** = Mechanical Engineering Department

**CSE** = Computer Science and Engineering Department



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**ECE** = Electronics and Communication Engineering Department

**CHEM** = Chemistry Department

**PHY** = Physics Department

**MATHS** = Mathematics Department

**H & SS** = Humanities and Social Science

**IT**=Information Technology

**MME**=Metallurgical & Materials Engineering

**CHE**=Chemical Engineering

**ANNEXURE-I**

**Courses being offered by Existing Departments**

<b>Sl. No.</b>	<b>Name of Departments</b>	<b>B. Tech. Courses</b>	<b>M. Tech./M.Phil. Courses</b>
1	<b>CE</b>	Civil Engg.	1. Water Resources Engg. 2. Structural Engineering 3. Geo-Technical Engg. 4. Transportation Engg. & Planning
2	<b>EE</b>	1. Electrical Engg.	1. Electrical Power and Energy System
3	<b>ME</b>	Mechanical Engg	1. Mechanical System Design. 2. Industrial Tribology and Maintenance Management
4	<b>CSE</b>	Computer Science Engg	----
5	<b>ECE</b>	Electronics and Communication Engg.	1 Communication & Information Technology 2 Micro-Electronics
6	<b>CHEM</b>	Chemical Engineering	1. Chemical Engg.
7	<b>MME</b>	Metallurgical & Materials Engineering	
8	<b>IT</b>	Information Technology	
9	<b>PHY</b>	-	MS.C Physics
10	<b>CHEM</b>	-	
11	<b>MATH</b>	-	

**Table (Appendix) 1a**

In addition, all the Departments offer Ph.D. programmes.

**Some Existing Laboratories in Various Departments**

<b>Department</b>	<b>Total No. of Labs</b>	<b>Name of the laboratory</b>	
Chemical	12	1	Fluid Mechanics and Mechanical Operations Laboratory
		2	Mass Transfer Laboratory
		3	Process Dynamics & Control Laboratory
		4	Thermodynamics and Reaction Engineering Laboratory
		5	Heat Transfer Laboratory
		6	Energy Engineering Laboratory
		7	Biochemical Engineering Laboratory
		8	Environment Engineering Laboratory
		9	Membrane Science and Technology Laboratory
		10	Multiphase System Laboratory
		11	Project Lab
CE	12	1	Fluid mechanics Lab
		2	SOM Lab
		3	Concrete Technology Lab
		4	Pavement Engg. Laboratory
		5	Environme-ntal engineering lab
		6	Structural Analysis Lab
		7	CAD Lab
		8	Traffic Engg. Lab
		9	Survey Lab
		10	Geotechnical Engg. Lab

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		11	Engg. Geology lab
		12	Project Lab
ECE	10	1	Communication Systems Laboratory
		2	Microprocessor Laboratory
		3	Digital Electronics Laboratory
		4	Analog Electronics Laboratory
		5	Microwave Engg. Laboratory
		6	Optical Fiber Communication
		7	Electronic Design & Automation Tools -II
		8	VLSI Lab
		9	Network Security Lab
		10	Computational Lab
		11	Project Lab
ME	12	1	Steam lab
		2	Production Technology Lab
		3	Fluid Mechanics Lab
		4	Internal Combustion Engines Lab
		5	Tribology Lab
		6	Heat Transfer Lab
		7	Mechatronics Lab
		8	Dynamics Lab
		9	CAD Lab
		10	Industrial Engineering Lab
		11	Metrology Lab
		12	Advanced Strength of Material Lab
EE	12	1	Basic Electrical Engineering Lab
		2	Control Systems Lab
		3	Electrical Measurement Lab
		4	Power Systems Lab
		5	Power Electronics Lab
		6	Electrical Machines Lab
		7	Microprocessor and DSP Lab
		8	Computation Lab
		9	High Voltage Engineering Lab

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		10	Virtual Instrumentation Lab
		11	Energy Systems Lab – (For Research Scholars)
		12	Project Lab
CSE		1 2 3 4 5	Artificial Intelligence Lab Computational Lab Database Lab Computer Graphics Lab. Networks & Security Lab
MME		1 2 3 4 5 6 7	Mechanical Metallurgy Lab. Physical Metallurgy Lab. Foundry Technology Lab. Mineral Dressing Lab. Metallography & Heat Treatment Lab. Fuels / Furnaces / Refractories Lab. Powder Metallurgy Lab

**Table (Appendix) 1b**

**Proposed New B. Tech. Courses (To be opened with Existing Departments)**

Proposing Deptt.	Proposed B. Tech. Courses	Year of starting	Student Intake	Faculty Requirement			Lab Staff Requirement				Space Requirement
				Prof	Asso. Prof.	Asst. Prof.	Technician	Lab Attd.	Clerk	Peon	
CE	Environmental Engineering	2015-16	30	01	02	04	03	06	01	01	25000 Sft.
ME	B.Tech. in Industrial & production Engineering	2016-17	50	02	04	08	02	02	01	01	
Chemistry & Chemical Engg.	B. Tech in Bio-technology	2015-16	60	01	01	02	02	01	01	01	3000 Sft

**Table (Appendix) 1c**

## Proposed M. Tech./ M.Sc. Courses (To be opened with Existing Departments)

Deptt.	Proposed Courses	Year of Starting	Intake	Intake Enhancement		Faculty Requirement			Lab Staff Requirement					Space Requirement	
				Year	No.	Prof .	Assoc. Prof.	Asst. Prof.	Scientific Officer	Technician	Lab Attd	Peon	Clerk		
CE	Environmental Engg. & Management	2019-20	25	--	--	01	-	02	01	01	01	-	-	3000 Sft	
	Geotechnical Engineering	2013-14	25	--	--	01	-	02	-	01	01	-	--		
	Transportation Engineering	2014-15	25	--	--	01	-	02	-	01	02	-	--		
ME	Tribology & maintenance	2012-13	25	--	-	01	-	02	-	01	01				3000 Sft
	Thermal Engg.	2020-21	25	--	-	01	-	02	-	01	01				3000 Sft
	Mechotrons & MEMS	2019-20	25	--	-	01	01	02	-	01	01				3000 Sft
	Automotive Engg.	2018-19	25	--	-	01	01	02	-	01	01				3000 Sft
	Production Engg.	2018-19	25	--	-	01	-	02	-	01	01				3000 Sft
	Industrial Engg.	2019-20	25	--	-	01	-	02	-	01	01				
EE	Power & Energy Systems	2013-14	25	--	-	01	-	02	-	01	01				
	Power Electronics & Drivers	2021-22	25	--	-	01	-	02	-	01	01				
	Control & Automation	2021-22	25	--	-	01	-	02	-	01	01				
CSE	M.Tech. CSE	2023-24	20			01	01	02	-	02	-	-	--		
ECE	Information Security	2023-24	25	--	-	01	01	02	-	01	01	-	--		
	Micro Electronics	2015-16	25	--	-	01	01	02	-	01	01	-	--		
	Wireless Communication	2020-21	25	--	-	01	01	02	-	01	01	-	--		
CHE	Biochemical Engg. & Biotechnology	2024-25	15	-	-	01	02	02	01	01	01	-	01		
	Environmental Engg.	2021-22	15	-	-	01	02	02	01	01	01	-	01		
MME	M.Tech. in Metallurgical & Materials Engg	2022-23	15		15	01	01	02	-	02	02	01	01		
MATH (M.Sc/ M.Tech)	M.Sc. Applied Mathematics	2020-21	15	2014-15	25	-	-	01	-	-	-	-	--		
Chem	M.Sc. in Industrial Chemistry	2022-23	20	2017-18	25	01	01	02	-	01	01	-	-		

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	M.Sc. in Bio-Science	2023-24	20	2017-18	25	01	01	02	-	01	01	-	-	
<b>PHY</b>	M.Sc. in Applied Physics	2024-25	15	2016-17	25	02	-	-	-	-	-	-	-	

**Table (Appendix) 1d**

**Proposed PG Diploma Courses (To be opened with Existing Departments)**

Deptt	Proposed PGD Courses	Year of start	Intake	Enhancement		Faculty requirement			Staff requirement				Space Requirement
				Yr	No.	Prof.	Assoc. Prof.	Asstt. Prof.	Technician	Lab Attd.	Clerk	Peon	
<b>CHE</b>	Industrial Instrumentation	2022-23	25	-	-	-	-	02	-	-	-	-	150 m <sup>2</sup>
<b>MME</b>	Failure Analysis	2024-25	25	-	-	-	01	02	01	02	-	01	200 m <sup>2</sup>

**Table (Appendix) 1e**

**Proposed Centres (To be opened separately)**

Deptt	Proposed Centres	Year	Faculty requirement				Staff requirement				Space Requirement
			Prof.	Asso. Prof.	Astt. Prof.	Scientific Officer	Technician	Lab Attd.	Peon	Clerk	
<b>ME</b>	Non Destructive Testing & Evaluation Centre	2014-15	01	02	--	1	1	1	1	-	200 m <sup>2</sup> for each of the Centres
	Energy Research Centre	2014-15	01	02	--	1	1	1	1	-	
	Ergonomics Centre	2018-19	01	02	--	1	1	1	1	-	
	Centre for Nano Science & Engg.	2020-21	01	02	--	1	1	1	1	-	
	Fatigue & Fracture Evaluation Centre	2020-21	01	02	--	1	1	1	1	-	
	Crygonic Research Centre	2021-22	01	02	--	1	1	1	1	-	
	Rapid Prototyping & Reverse Engg. Centre	2022-23	01	02	--	1	1	1	1	-	
MEMS Design Centre	2023-24	01	02	--	1	1	1	1	-		

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<b>ECE</b>	Centre for Telemediiciens	2015-16	01	01	02	01	02	01	01	-
<b>MME</b>	Testing & Evaluation of Materials Quality	2015-16	01	01	02	01	04	02	01	01
<b>EE</b>	Centre for Energy Studies	2015-16	01	01	02	01	02	01	01	-

*Table (Appendix) 1f*

Deptt.	Additional Space Requirement (m <sup>2</sup> )					
	Class Rooms	Labs	Seminar Rooms	Others (Faculty rooms etc.)	Proposed New Deptts	Total space
<b>CE</b>	200 m <sup>2</sup>	500 m <sup>2</sup>	100 m <sup>2</sup>	100 m <sup>2</sup>	600 m <sup>2</sup>	1500 m <sup>2</sup>
<b>EE</b>	200 m <sup>2</sup>	500 m <sup>2</sup>	100 m <sup>2</sup>	200 m <sup>2</sup>	-----	1000 m <sup>2</sup>
<b>ME</b>	400 m <sup>2</sup>	500 m <sup>2</sup>	100 m <sup>2</sup>	600 m <sup>2</sup>	-----	1600 m <sup>2</sup>
<b>CSE</b>	300 m <sup>2</sup>	400 m <sup>2</sup>	100 m <sup>2</sup>	200 m <sup>2</sup>	-----	1000 m <sup>2</sup>
<b>ECE</b>	400 m <sup>2</sup>	500 m <sup>2</sup> .	100 m <sup>2</sup>	200 m <sup>2</sup>	-----	1200 m <sup>2</sup>
<b>CHM</b>	400 m <sup>2</sup>	200 m <sup>2</sup>	100 m <sup>2</sup>	200 m <sup>2</sup>	-----	900 m <sup>2</sup>
<b>MME</b>	400 m <sup>2</sup>	500 m <sup>2</sup>	200 m <sup>2</sup>	500 m <sup>2</sup>	-----	1600 m <sup>2</sup>
<b>PHY</b>	200 m <sup>2</sup>	200 m <sup>2</sup>	100 m <sup>2</sup>	100 m <sup>2</sup>	-----	600 m <sup>2</sup>
<b>MATH</b>	200 m <sup>2</sup>	100 m <sup>2</sup> .	100 m <sup>2</sup>	200 m <sup>2</sup>	-----	600 m <sup>2</sup>
<b>HSS</b>	100 m <sup>2</sup>	100 m <sup>2</sup>	100 m <sup>2</sup>	400 m <sup>2</sup> .	-----	600 m <sup>2</sup>
<b>10 Centres</b>	7X 200m <sup>2</sup>					1400 m <sup>2</sup>
<b>Total:</b>						9600 m <sup>2</sup> say 10,000 m <sup>2</sup>

*Table (Appendix) 1g*

**Proposal for consideration of establishment of New Campus.**

Sl No	Execution period	Name of the Project	Built up area where applicable	Estimated cost in Lacs
1	2011-17	2500 capacity Boys' Hostel	10,000 m <sup>2</sup>	1500.00
2	-do-	500 capacity Girls' Hostel	1500 m <sup>2</sup>	300.00
3	-do-	Construction of Married Scholars Hostel (PG/Ph.D students) (A) 300 capacity P.G Boys (B) 100 Married Scholars	12060 m <sup>2</sup>	1810.00

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4	-do-	New Library building	10,000 m <sup>2</sup>	1500.00
5	-do-	Community cum Meditation Centre 1000 capacity	4000 m <sup>2</sup>	600.00
6	-do-	Construction of Auditorium building	3100 m <sup>2</sup>	465.00
7	-do-	Market Complex	2000 m <sup>2</sup>	300.00
8	-do-	Security Barrack 100 capacity	554 m <sup>2</sup>	84.00
9	-do-	Construction of Administrative building	2700 m <sup>2</sup>	405.00
10	-do-	Construction of Estate Department, Central Store Office Building, T&P, NCC etc.	3000 m <sup>2</sup>	450.00
11	-do-	Augmentation of electrical power supply (i) 33/11 KV sub station (ii) 11 KV distribution	250 m <sup>2</sup>	38.00
12	-do-	Augmentation of Class room space	2000 m <sup>2</sup>	300.00
13	-do-	Augmentation of Labs.	2000 m <sup>2</sup>	300.00
14	-do-	Augmentation of Residential Area	2500 m <sup>2</sup>	375.00
15	-do-	Recreational facilities for students viz. OA theatre, swimming pool and indoor stadium	3000 m <sup>2</sup>	450.00
16	-do-	Construction of internal roads	-	1200.00
17	-do-	Construction of Institute main gate	-	25.00
18	-do-	Improvement of landscaping, Echo Park, Children Park	-	250.00

*Table (Appendix) 1h***ANNEXURE-II**



## Recruitment Rules for Faculty of NITs

1. **Short title and commencement:** These rules may be called the NIT Faculty Recruitment Rules, 2011. These shall come into force from the date of their notification which will follow their acceptance by the Board of Governors of the concerned Institute.
2. **Definitions:** In these rules, unless the context otherwise requires;
  - a) “Act” means NIT Act, 2007.
  - b) “Statutes” means the First Statutes of the NITs and the Statutes subsequently framed by the respective NIT or framed by the Ministry of Human Resource Development.
  - c) “Service Rules” means Service Rules of the respective NIT
  - d) “Faculty” means the Professor, Associate Professor and Assistant Professor of the NITs.
3. **Method of Recruitment and other matters:** The method of recruitment and other matters relating to the post of Faculty shall be specified in the Schedule annexed to these rules.
4. **Deputation/Contractual Appointments:** Faculty, who are appointed on contractual basis, shall be for a fixed period not exceeding five years. Faculty without Ph.D. degree shall be recruited on contract basis only.
5. **Disqualification :** No person,
  - (i) Who had entered into or contracted a marriage with a person having a spouse living; or
  - (ii) Who having a spouse living, has entered into or contracted a marriage with any person.shall be eligible for appointment to the said post; provided that the Board of Governors may, if satisfied that such marriage is permissible under the personal law applicable to such a person and the other party to the marriage and that there were other grounds for so doing, exempt any person from the operation of this rule.
6. **Saving:** Nothing in these rules shall affect reservations, relaxations of the age limit and other concessions required to be provided for the candidates belonging to the Scheduled Castes, Scheduled Tribes, Other Backward Classes, Ex-servicemen and other special categories of persons in accordance with the orders issued by the Central Government from time to time in this regard. These rules shall also not affect the recruitments already made or for which recruitment process has already commenced; but any appointment or promotion to higher post proposed to be made or made subsequent to the notification of these Recruitment Rules will be governed by these Recruitment Rules.
7. **Other conditions of service:** The other conditions of service of the Faculty for which no specific provisions have been made in these rules shall be regulated in accordance with



**7. Whether age and educational qualifications prescribed for Direct Recruits will also apply in Case of promotees:**

There shall be no distinction between external and internal candidates with regard to the requirements of qualification and experience. An internal candidate is deemed to be recruited directly, irrespective of his position against a vacancy, i.e. whether he is recruited against a vacancy or supernumerary under career advancement. Limitation on age bar and specialization, however, will be applicable to external candidates only.

**8. Period of probation, if any:**

One year. It may be extended by the respective BoG, on recommendation of the Director.

**9. Method of Recruitment:**

- a) Whether by Direct Recruitment or
- b) By promotion/ by deputation and percentage of vacancies to be filled up by various methods:
- c) All posts will be filled up by direct recruitment (including recruitment of internal candidates without a clear vacancy for career advancement) failing which on deputation from institutions of comparable standing, failing which on contract for a maximum tenure of five (05) years. Assistant Professors without Ph.D. degree will be recruited on contract basis only.

**10. In case of recruitment by promotion/ deputation/ absorption, grades on which promotion/ deputation/ absorption to be made applicable:**

Not applicable.

**11. Basic principles of Faculty recruitment:**

- a) A Ph.D. degree shall be the minimum qualification for a regular faculty position in NIT. Candidates with M. Tech. degrees may be appointed as Assistant Professors, on contract basis only. The Institutes will strive to provide necessary facilities to such contract faculty to complete their own Ph.D. either within the Institutes (if facilities exist) or outside. Any deficiency in extension of such facility, however, will not be a ground for award of regular post without a Ph.D. degree.
- b) All recruitment and pay-fixation shall be done by the BoGs of the Institutes only on the recommendations of duly constituted Selection Committees. There shall be no scope of fixing of altering pay (pay in pay-band or grade pay) outside the Selection Committee. The Selection Committee shall be the only entity empowered to consider the past services and qualifications of a candidate.
- c) Recommendations of the Selection Committee will be arrived at by discussions within the Committee. Contents of such discussions and details of transactions within the Committee will not form a part of permanent records or minutes.

**12. Distribution of posts among departments / centres and designations:**

While there is no rigid formula for distribution of sanctioned posts among the departments and centres within an Institute, Annexure V gives a recipe for distributing sanctioned faculty posts among various departments of an Institute. But the BOG, on the recommendation of the director, shall dynamically allocate sanctioned faculty positions among the departments taking into

### *Annexures*

consideration academic programmes of various departments, existing quality of faculty, expected retirements and availability of bright candidates.

There will be three designations – Professor, Associate Professor and Assistant Professor. At present, all NITs have been granted a three tier “rigid” faculty distribution among the three designations – P:AsP:AP = 1: 2: 4, with a Career Advancement Scheme where faculty may move to higher pay (AGP) and designation in the absence of a clear vacancy. Details of CAS provisions are given later in this schedule.

Institutes may, however, opt through a resolution of the Board and concurrence of the Council of NITs (or the Standing Committee of the Council on behalf of the Council) the 4 tier flexible faculty cadre announced by the Ministry vide its order of 18<sup>th</sup> August, 2009.

### **13. Qualifications and Experience:**

Qualifications and experience required for various posts as well as the selection procedure are listed in Annexures – I to IV for both the 3 tier rigid faculty structure as well as the 4 tier flexible faculty structure. While all the NITs follow the 3 tier structure at the moment, it is expected that most of the Institutes will follow the 4 tier flexible cadre structure in due course with the approval of the Ministry

### **14. Faculty from industry without Ph.D. degree:**

There shall be necessary provision for inducting faculty from industry (or comparable organisations) with substantial professional and R&D experience, but not having a Ph.D. degree. For candidates with good number (say 10) of publications in leading journals of the field, the candidates being the lead author, the requirement of Ph.D. degree may be waived. In all other cases, such a candidate may be taken on contract till he completes the Ph.D. degree.

### **15. Policy on avoiding in-breeding:**

Most leading universities of the world, including the best Institutes of India have an explicit or implicit policy of not inducting their own students into the faculty. To avoid such in-breeding, the NITs will follow the following policies:

- a) Candidates who have obtained or are expected to obtain their most recent degree (Ph.D. or M.Tech.) from the Institute will normally not be considered for recruitment, except where there is a 3 years’ gap (approximately) between leaving the Institute and the expected date of joining.
- b) This is not applicable to candidates who are already members of the faculty, either regular or on contract, and are pursuing a higher degree in the Institute.
- c) In special cases, where the department (at the time of short-listing) or the Selection Committee feels that an exception needs to be made (for reasons such as severe shortage of faculty in a given academic field or exceptionally brilliant candidate or any other), the reasons for such exceptions are to be recorded in writing and put up to the Board of Governors for approval. The Board, if convinced, may confirm the selection. Such appointments will not serve as precedence.

### **16. Multiple attempts:**

In order to keep the number of candidates interviewed within practical limits, Scrutiny Committee may, if it deems fit, reject a candidate on his third or further attempt, if the candidate has failed to

win the same post in two previous attempts, (either in scrutiny or selection stage), even if he meets the short-listing criteria, except when there is significant new achievement justifying an exception.

**17. Functioning of the Selection Committees:**

While the Scrutiny Committee and Selection Committee will use all information available to them and be as quantitative as possible, their recommendations will reflect a collective decision based on accumulated professional experience which is often not possible to quantify. Committees will not be obliged to record the details of their individual reasoning process.

**18. Auxiliary Faculty Positions:**

Norms for appointment of adjunct, honorary, chair, emeritus, contractual, visiting, ad hoc and temporary faculty are given in Annexure – VI.

**19. Seniority of Faculty:**

Personal prospects as well as responsibilities assigned by the Administration in an Institute of higher learning should be decided on academic merit and performance, rather than by service seniority. However, in cases where

“seniority” is an issue, the following will be the deciding factors in decreasing order of importance: (i) Designation (ii) AGP, (iii) Pay in Pay Band (iv) Date of BoG meeting in which current AGP was sanctioned (iv) Position in the merit list prepared by the Selection Committee, (vi) Seniority in lower AGP or 5<sup>th</sup> CPC (vii) Date of Birth.

**20. Career Advancement Scheme:**

A Career Advancement Scheme (CAS) is an essential component of a rigid faculty structure, whereby an individual faculty member can move to a higher designation and/or pay (AGP) in the absence of a clear vacancy. The CA Scheme of NITs is distinct and is fundamentally different from those of UGC, AICTE or similarly placed agencies.

A CAS promotion may be given to a serving faculty member on satisfying two essential criteria simultaneously:

- a) Completion of specified number of years of service in the same institute in a lower designation or AGP, AND
- b) Being selected by a valid Selection Committee using the same criteria, procedure and common interview as prescribed for directly recruited candidates (internal or external) and being included in a common panel.

There shall be no legal or social distinction between a faculty member selected against a clear vacancy or in the absence of one under CAS. Both are deemed to be directly recruited. There shall be no retrospective promotion, neither real nor notional.

If and when a vacancy occurs in the higher posts and there are serving faculty members with corresponding designation under CAS, they must be adjusted as per the respective seniority list before fresh advertisements are published. Under special circumstances, if an Institute is looking for new faculty at Professor or Associate professor level with expertise not available within the Institute, the Board of Governors (on recommendations of the ACoFAR) can set aside a vacant position exclusively for external recruitment.

### *Annexures*

In the case of up-gradation of Professors to HAG scale, personal interview may be dispensed with. The Selection Committees[formed as per provisions of the Statutes] shall make their recommendation on the strength of publication, books, patents sponsored projects, industrial consultancy, Ph.D. guidance, and contribution to Institute's administration as submitted by the candidate.

#### **21. Transition from rigid to flexible Cadre Structure:**

When an Institute adopts the 4 tier flexible cadre structure, every faculty member will continue with his current designation and pay in the pay band. The AGP will be reset to its new values (Rs.10500.00 for professor and Rs.9500.00 for Associate Professor) as appropriate to the new structure. Neither a selection process nor a personal interview will be necessary.

In some cases, the pay in the pay band may be below the minimum applicable to a particular designation i.e. Rs.43000.00 for Associate Professor and Rs.48000.00 for Professor. As a one-time measure, incumbents will be permitted to continue with their existing pay in pay band. A faculty member may, however, request appearance before a Selection Committee for up-gradation of pay in the pay band to the minimum value compatible with his AGP. The pay in the pay band will be corrected with prospective effect if so recommended by the Selection Committee and approved by the BoG.

#### **22. Maintaining National character of NITs:**

As decided by the Council the institute shall strive to recruit 50% faculty not domicile of that state in which the Institute is located.

#### **23. Miscellaneous:**

A copy of these regulations including the academic criteria specified for various posts and selection procedure in Annexure – I to IV will be made available to every member of the Selection Committee before start of interviews.

**Prescribed Minimum Qualification and Experience for  
Faculty Positions of**

**NATIONAL INSTITUTES OF TECHNOLOGY**

**(Under the standard 3 tier rigid faculty structure)**

<b>Designation, Pay Band and Academic Grade pay</b>	<b>Essential Qualification</b>	<b>Relevant Experience</b>	<b>Other essential requirements (Expected to be amended upwards with time, as the NIT system achieves higher standards)</b>	<b>Additional Desirable requirements</b>	<b>Age : Preferably below</b>
<b>Assistant Professor</b> (On contract) Grade Pay Rs.6000.00 PB3 + 2 increments	M. Tech.	None	None	Advanced state of Ph.D. work in a reputed institute.	30 years
<b>Assistant Professor</b> Grade Pay: 7000.00	Ph. D.	None	One paper accepted for publication in an SCI journal	Two SCI Journal papers or one patent; may be based on Ph.D. work.	35 years
<b>Assistant Professor</b> Grade Pay Rs.8000.00	Ph. D.	3 years after Ph.D. or 6 years total (not counting Ph.D. enrolment period) after obtaining M. Tech. degree.	2 papers in SCI journals outside Ph. D. work. One ongoing sponsored project for candidates from academia. Two experimental or computational projects added to teaching laboratories where appropriate.	One Ph. D. supervision ongoing; One Patent; Experience in industry or R & D lab. of repute; M. Tech., M. Sc. or B. Tech. project supervision on live industrial problems.	N. A.
<b>Associate Professor</b> Grade Pay Rs.9000.00 PB4	Ph. D.	6 years after Ph.D., or 9 years total (not counting Ph.D. enrolment period) out of which 3 years should be after Ph.D. and as assistant professor or equivalent in a reputed institute, laboratory or industry	4 papers in SCI journals; One Ph. D. guided as sole or principal supervisor. Two projects ongoing or one ongoing plus one completed. One self financed or two Govt. sponsored short-term courses offered. Two experiments or computational projects added to teaching laboratories where appropriate.	One or more patents; Supervising one or more students for Ph. D.; Strong liaison with industry; Offering courses through application of ICT.	N. A.

*Table (Annexure)2a*

<b>Designation, Pay Band and Academic Grade pay</b>	<b>Essential Qualification</b>	<b>Relevant Experience</b>	<b>Other essential requirements (Expected to be amended upwards with time, as the NIT system achieves higher standards)</b>	<b>Additional Desirable requirements</b>	<b>Age : Preferably below</b>
<b>Professor</b> Grade Pay Rs.10,000.00 PB-4	Ph. D.	10 years after Ph.D. or 13 years (not counting Ph.D. enrolment period) total out of which 7 years to be after Ph.D. including 3 years at Associate professor level.	Two Ph.D.s guided in career as sole or principal supervisor, plus one ongoing. The following during the past 4 years: (i) 3 papers in SCI journals; (ii) One high value sponsored or consultancy project; (iii) Two self financed or four Govt. sponsored short-term courses as coordinator and main teacher, (iv) Two experiments or computational design projects added to teaching laboratories where appropriate.	One or more Patents; Supervised more than three students for Ph. D.; Preparing E-Learning material. At least one self-financed short-term course offered every year. Strong liaison with industry. Offering significant support to institute management; High value sponsored or consultancy projects.	
HAG scale	Ph. D.	Six year as Professor with AGP 10000.00 or higher in an institute of national importance.	4 Ph. D.s guided in career as sole or principal supervisor plus at least one full time resident student continuing. The following during the past six years: (i) 4 papers in SCI journals; (ii) 2 high value sponsored or consultancy projects, plus one ongoing, (iii) 3 self financed or 5 Govt. sponsored short-term courses offered as coordinator and main teacher, (iv) Three experiments or computational projects added to teaching laboratories. (v) Significant contribution to institute management through personal initiatives in responsible positions.	Truly significant contribution in one area – publications, writing of text books or reference books, sponsored projects, consultancy and support to industry, E-learning packages, creative contribution to institute's welfare.	N. A.

Table (Annexure)2b



**Prescribed Minimum Qualification and Experience for**

**Faculty positions of**

**NATIONAL INSTITUTES OF TECHNOLOGY**

**(Under proposed four tier flexible faculty structure)**

<b>Designation, Pay Band and Academic Grade pay</b>	<b>Essential Qualification</b>	<b>Relevant Experience</b>	<b>Other essential requirements</b>	<b>Additional Desirable requirements</b>	<b>Age limit (Desirable)</b>
<b>Assistant Professor</b> (On contract) Grade Pay Rs.6000.00 PB3 + 2 increments	M. Tech.	None	None	One publication in an SCI journal; Advanced State of Ph.D. work in a reputed Institute.	30 years
<b>Assistant Professor</b> (On contract) Grade Pay: 7000.00	Ph. D.	None	None	Two papers in SCI journals or one patent; may be based on Ph.D. work.	35 years
<b>Assistant Professor</b> Grade Pay Rs.8000.00	Ph. D.	3 years after Ph.D. or 6 years total (not counting Ph.D. enrolment period) after obtaining M. Tech. degree.	2 papers in SCI journals outside Ph. D. work. One ongoing sponsored project for candidates from academia. Two experimental or computational projects added to teaching laboratories where appropriate.	One Ph. D. supervision ongoing; 1 Patent; Experience in industry or R & D lab. of repute; M. Tech., M. Sc. or B. Tech. project supervision on live industrial problems.	N. A.
<b>Associate Professor</b> Grade Pay Rs.9500.00	Ph. D.	6 years after Ph.D. out of which 3 years should be at the level of Assistant Professor or equivalent in a reputed university, R & D Lab. or relevant industry.	6 papers in SCI journals; One Ph. D. guided as sole or principal supervisor plus one continuing. Two projects ongoing or one ongoing plus one completed. Two self financed or three Govt. sponsored short-term courses offered as coordinator and main teacher. Four experiments or computational projects added to teaching laboratories where appropriate.	1 or more patents; Supervising two or more students for Ph. D.; Strong liaison with industry; Offering courses through application of ICT.	N. A.

**Table (Annexure)2c**

Designation, Pay Band and Academic Grade pay	Essential Qualification	Relevant Experience	Other essential requirements	Additional Desirable requirements	Age limit (Desirable)
<b>Professor</b> Grade Pay Rs.10,500.00 PB-4	Ph. D.	10 years after Ph.D.	Three Ph. D. degrees guided in career. The following during the past 4 years: (i) 4 papers in SCI journals; (ii) One high value sponsored or consultancy project; (iii) Two self financed or four Govt. sponsored short-term courses offered as coordinator and main teacher; (iv) Four experiments or computational design projects with added to teaching laboratories where appropriate.	Two or more Patents; Supervised more than three students for Ph. D.; Preparing E-Learning material. At least one self-financed short-term course offered every year. Strong liaison with industry. Offering significant support to institute management; High value sponsored or consultancy projects.	N. A.
<b>Professor</b> HAG Scale	Ph. D.	Six years as Professor with AGP 10000.00 or 10,500.00 in an institute of national importance.	5 Ph. Ds guided as sole or principal supervisor plus at least one full time resident student continuing. The following during the past six years: (i) 5 papers in SCI journals; (ii) 2 significant sponsored or consultancy projects, plus one ongoing; (iii) 3 self financed or 5 Govt. sponsored short-term courses offered as coordinator and main teacher; (iv) Three experiments or computational projects added to teaching laboratories. (v) Significant contribution to institute management through personal initiative in responsible positions.	Truly significant contribution in one area – publications, writing of text books or reference books, sponsored projects, consultancy and support to industry, E-learning packages, creative contribution to institute's welfare.	N. A.

Table (Annexure)2d

## Annexure-III

**Recruitment Rules for faculty positions in  
NATIONAL INSTITUTES OF TECHNOLOGY**

**Common Essential Requirements**

[For both 3-tier rigid and 4-tiers flexible systems]

1. Superior academic record at all levels from high school onwards.
2. First class in B. Tech. / M. Sc. and in M. Tech.
3. All degrees from reputed institutions, preferably from institutions of national importance or university departments in India or abroad.
4. Good oral and written presentation skills.
5. Strong command over fundamental subjects.
6. The following shall be considered as essential requirements, without which a faculty member will be deemed unfit for promotion or selection even if he has met or exceeded the prescribed qualification, experience and performance criteria.

Teaching (For teachers of same or different institute)	<ol style="list-style-type: none"> <li>a) At least 3 theory subjects (semester long) for each year of post-Ph.D. experience in a teaching institution.</li> <li>b) Commensurate volume of written material for assisting students-lecture notes, problem sheets ppts etc. shared with the students.</li> <li>c) Consistently good (better than Institutes average) score in student feedback on courses taught. [Institutes shall introduce computerized student feedback system and make the summary results available on the internal web site or equivalent publication.]</li> <li>d) Question papers for different exams set by the faculty members to be examined by Selection Committee.</li> <li>e) Introduction of new courses or revision of existing syllabi.</li> <li>f) No adverse record in teaching e.g. negligence in classes or exams.</li> </ol>
Institute and professional Activity (For Teachers of same or different institute)	<ol style="list-style-type: none"> <li>a) Reasonable record of responsibility and creative performance in management of the organization (commensurate with length of service)- responsibility of Dean, HOD, Chairman or Members of Committees.</li> <li>b) Support to extra academic activity of students – NCC, NSS, Sports, Cultural, Music and Quiz etc.</li> <li>c) Organization of student functions.</li> <li>d) Warden ship of hostels and work towards improvement of living conditions of the students.</li> <li>e) Leadership and guiding students in scientific and</li> </ol>

	<p>technical work outside class room.</p> <p>f) Assisting management in construction, maintenance, ICT, Lawns &amp; Gardens and providing services in the institute.</p> <p>g) Assisting management in record keeping, website management, document preparation, management of Convocation etc.</p> <p>h) Departmental activities – T&amp;P, Seminars, projects, Library etc.</p> <p>i) Collaboration with other Institutions in India and abroad.</p> <p>Organising conferences, symposia and activities of</p> <p>j) professional societies.</p> <p>Strictly no adverse record of negligence or dishonesty</p> <p>j) in discharging one's responsibility.</p>
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**Table (Annexure) 3**

A faculty member is not expected to excel in all the fields, but he must contribute in at least two areas with visible contribution to each. Poor record under any of the above items, in terms of dishonesty, negligence, harassing beneficiaries, indifference or not taking up a responsibility will be viewed seriously by the selection committees. When an assignment is given by the administration, the faculty member must show initiative and work proactively towards improvement of his work environment instead of simply holding on to a position.

It is also expected that faculty members will take positive initiatives to be visible at the Institute-level so that they win the trust of the higher management and get assignments to contribute to institutional progress.

**Notes:**

It is expected that the NITs recruit faculty who have earned their degrees from Institutes of high-standing in India or abroad. The Scrutiny Committee and the Selection Committee are expected to judge the quality of the training that the candidates received during their own academic careers from the standards of the Institutes from where they earned their degrees. It will be within the power and responsibility of these Committees to reject candidates from Institution of low-standing even if their degrees and grades are above the required level. This consideration is applicable to candidates at Assistant Professor level.

1. A single individual is not expected to meet all the essential performance criteria listed in the tables of Annexure-I and II. **But in the judgment of the Selection Committee, the sum total of his contribution should exceed the sum total of the essential requirements given in the table above in terms of scholastic effort necessary.**

### *Annexures*

2. Experience will be counted only when it is earned in a reputed institute, university, industry or laboratory on a job relevant to the department to which a candidate is applying. Experience shall normally mean the experience earned after award of M. Tech. degree.
3. The Selection Committee shall consider publications in journals of reasonable standing, ignoring publication in very weak journals. Professional judgment of experts in this matter shall not be questioned.
4. A publication shall normally mean publications which are covered by the Science Citation Index (SCI) where ever applicable. Papers accepted for publication and actually published will be seen to be at par.
5. In case of joint publications and joint Ph.D. guidance in an institution where there is no concept of “Principal Supervisor”, the Scrutiny Committee and the Selection Committee shall assign fractional credit. The Committee’s decisions on such matters shall be final in respective domains.
6. In Institutes without significant postgraduate or doctoral programme, as a temporary measure, the selection committees may consider and evaluate publication of text books, sponsored projects from funding agencies, formal lecture notes, M. Tech and M.S. projects guided and collaborative work with industry as scholastic work in lieu of experience in guiding Ph. Ds.
7. The “essential qualifications “and” other essential requirement” given in Annexure-I and II are bear minimum for eligibility to be considered for promotion. An average faculty member is expected to generate performance output higher than the minimum prescribed in the tables in Annexures I and II.
8. Scholastic achievement and length of service and other essential but not necessary requirements shall form the criteria for promotion. But in matters of fresh selection, other considerations such as expertise of candidates vs. need of the department shall form dominant considerations.
9. There is no distinction between the requirements for “appointment against vacancy” and “promotion under CAS”, nor there do any distinction in the status of the two types of faculty members. A selection process shall cover both internal and external candidates, both being examined together by the same committee, the only exceptions being limiting a selection only to external candidates at entry level of Assistant Professor, and to internal candidates (under CAS) when there is no vacancy in a particular department.
10. If suitable candidates are not available for positions of Professor or Associate Professor, the positions may, at the discretion of the Board, be utilized for recruiting faculty in lower positions.

## Annexure IV

### Procedure for Selection of Faculty in NIT System

Today there is great diversity among the selection procedures being followed in institutions of higher learning in our country. Different systems have evolved in different institutes in response to their emphasis on research and teaching, historical and geographical factors. The procedure outlined here has generally, but not exactly, been followed in most IITs. The procedure is prescribed as a guideline, without insisting that it be followed religiously. Boards of Governors may opt for alternative procedures after examining their merit vis-a-vis the base line procedure given below.

1. The Director will create an “Advisory Committee on Faculty Recruitment (ACoFAR)” with a senior member of the faculty as the Chairman. Normally, he should be the Dean (Faculty Welfare); but Director shall have the discretion to assign the responsibility to Dy. Director or another senior Professor or handle it himself. The Chairman of ACoFAR shall be authorized to communicate with departments, candidates and experts on the advice of Director. In addition, the Committee shall discharge the following functions:
  - a) Examine and advise on distribution of faculty positions among various departments;
  - b) Proactively search for faculty candidates in India and abroad.
  - c) Assist the Director in examining, short listing criteria and preparing panels of short listed candidates submitted by departments;
  - d) Examine and recommend proposals for deviation in age, formal qualifications, industry experience or any other criterion or guideline;
  - e) Reservation of positions for specialization or sub-specialisation and rank of faculty to be inducted; and
  - f) Proactively search for candidates from reserved categories, and if not available after repeated attempts, prepare proposals for de-reservation in accordance with the relevant rules & regulations.
  
2. The Institute will create a panel of experts and update it on annual basis. The list will be prepared by taking inputs from departments. Director may also add extra names or delete some from the list. Normally the experts should be drawn from NITs, IITs, IIMs, IISERs, IISC, University departments, major R&D Laboratories (CSIR, ICAR, DAE, ISRO, DRDO etc.) and major industry. The list, along with postal and electronic addresses, designations, specialization and other relevant particulars of proposed experts is to be placed before the Senate and then the BoG for their approval. Every higher authority shall have the power to add and delete names. In addition, fellows of INAE and the 3 science academies will be automatically included in the panel. Every attempt should be made to ensure that major specializations of each department are adequately represented in the panel.
  
3. While the above is a permanent list, upgraded periodically, preferably every year, the BOG, at its discretion, may permit Director to choose experts for every single selection process from the full panel or from specific sub panels.
  
4. As per NIT Act, the visitor shall nominate one member to the selection committee. It is observed in practice that being present in all sessions of a selection process (that spreads over two to four weeks) becomes hard on the distinguished professors who serve as visitor’s nominees, and they are often unwilling to spare the time. The Ministry will

## *Annexures*

recommend to the Hon'ble Visitor to nominate a panel of five distinguished persons in different subject areas to serve as Visitor's nominees and permit institutes to invite them as per their availability and convenience.

5. The director will send a copy of the panels approved by the Secretariat of the Council of NITs for records.
6. It is extremely important that the suggested panel of experts is examined critically by the Board and the Ministry and any member with a questionable integrity is removed.
7. Prior to a selection process, the Director will choose experts from the approved panels ensuring a reasonable distribution among specialisations, and to the extent possible, diversity of background, place of work etc.
8. In addition to the expert members of the selection committee, the Director, as Chairman of the Committee, may invite observers from SC/ST and minority communities or any other person of repute to instil confidence in the minds of the candidates and of the Institute community.
9. On advice of the Director, the Chairman, ACoFAR will seek from the Departments the specific specializations where new faculty is to be recruited. The HODs will consult senior faculty colleagues and prepare the proposals to the Institute, which will be collated by the Chairman, ACoFAR and placed before the Director for approval. The Director is expected to review the proposals critically and finalize the draft advertisement including specializations, critical dates, newspapers of advertisement and other details.
10. Serving regular faculty members shall be eligible to apply for higher positions in their own departments irrespective of their specializations, if they satisfy other advertised criteria.
11. Application may be received on paper, on-line or both, depending on the technological resources of the respective Institute. In addition, the Institute will consider applications received against standing advertisement, if any, and unsolicited applications.
  12. While applications received within the advertised closing date shall definitely be considered, late applications (upto the interview time) may be considered at the discretion and convenience of the administration.
  13. In addition to the advertisements, all sections of the institute administration - Director, members of ACoFAR, HODs and all faculty members will make proactive effort to attract applications from prospective candidates, without making any commitment of selection. Such efforts will include postal and email correspondence, telephonic talks and public announcement when there is an opportunity.
  14. Applications, when received, will be organized, relevant information summarized, and sent to the departments by the Registry, for short listing. The objectives of short listing are two folds:-
    - (a) to reject applications that do not meet advertised criteria and
    - (b) to select the best candidates from the remaining list so that the number of candidates to be called for interview with the experts remains within manageable limits.
  15. Departments will make attempt to set "short listing criteria" that can be easily implemented. But, considering the multiple attributes that need to be considered, it may become necessary to make case by case exceptions. In all such cases the general short listing criteria and the reasons for exception, if any, are to be recorded in writing. Short listing criteria may include, among others, such conditions as:
    - (i) superior academic record – all through first class career or higher grades in B.Tech/M.Sc./M.Tech, higher than advertised criteria,

- (ii) Reputation of institutions from where the candidate has obtained his degrees,
  - (iii) Number of unsuccessful attempts for the same post [Candidates who have been rejected in the past may be called only if there is a good reason, the reason to be recorded in writing.]
  - (iv) Specialisation, including micro specialisation,
  - (v) Professional service record - reputation of organization where experience has been earned, nature of job, current activities etc.
16. The Departments' recommendations shall be placed before the Director for the final short-listing. The final list of candidates to meet the Selection Committee will be arrived at in a combined meeting of the Director, the ACoFAR, the HOD and at least three senior faculty members of the Department. In case of a lack of unanimity among the members, the director's decisions shall be final for the purpose of calling a candidate to the interview. The different viewpoints, however, will be recorded in writing and placed before the selection committee who may record their own comments for information of the BOG. The decision of the Board on the selection shall be final and binding.
17. In addition to formal application, candidates will be required to submit reprints/preprints of publications and list of referees. The PIC will organize collection of references and review of publications by independent referees for short listed candidates, both internal and external.
18. The short listed candidates will be invited by the Chairman, ACoFAR or the Registrar for personal interview with the selections committee constituted in accordance with the NIT Act and the statutes of the respective institutes. In addition, the individual institutes may seek seminar presentation in the departments, and/or any other form of academic interaction with the faculty. All such interaction will be open to the faculty and students of the institute and will be well publicized in advance to invite a decent audience. The feedback of the faculty will be communicated to the selection committee by the HOD. Candidates located outside the country or otherwise not in a position of attending personal interview, may be interviewed over video conferencing or be selected in absentia at the discretion of the selection committee.
19. On completion of the interview, the selection committee will record its final recommendations with signature of every member present. The Director, as chairman of the committee will be responsible for writing the recommendation. There shall be no scope for retaining individual viewpoints or details of discussion. Any member(s) with a dissenting opinion may, however, record their observations. On a separate page( with a reference in the main page that will be presented by the Director to the BoG with his own comments on the observations.
20. The Selection Committee shall employ the same yard stick to evaluate all candidates for a post or AGP – external, internal, with or without a clear vacancy, and shall prepare a common panel of recommended candidates. Out of this panel, the vacant posts will be filled on the basis of merit without consideration of external or internal candidates. The Selection Committee, at its discretion, may recommend retaining the panel for a maximum period of one year or next round of selection for the department, whichever comes earlier, so that vacancies caused during this period can be filled in order of merit. On completion of this period, only the internal candidates will be given promotion under CAS to



## *Annexures*

be adjusted against future vacancies caused by retirement, resignation or creation of new posts, any time in future.

21. Recommendations of the selection committees will be placed before the BoG, along with details of sanctioned posts, reservation categories etc., for final approval and subsequent issue of appointment orders by the Registrar.
22. If a meeting of the BoG is not scheduled within a short period from the meeting of the selection committee, the director, with approval of the Chairman BoG, may seek the approval of members by circulation. While recommendation of the selection committee is awaiting approval of the BoG, the director may, at his discretion, inform successful candidates, but with a clear line stating that such information is awaiting approval of competent authority and is not legally binding.
23. All appointments - regular or CAS, internal or external, will be effective from the date of the Board meeting or any later date fixed by the Board. There shall, however, be no pre-dating of an appointment.
24. The following provisions will govern the selection and service conditions of new faculty recruited without a Ph. D. degree
  - (i) If sufficient numbers of meritorious candidates with Ph. D. degree are not available in any discipline or sub-discipline, candidates with M. Tech degree may be recruited as Assistant Professor on contract with AGP of Rs.6000.00 only.
  - (ii) The contract will be initially for a period of three years, extendable by two more years only on recommendation of a valid Selection Committee.
  - (iii) Such faculty, after joining the departments, must be enrolled in the Institute's own Ph. D. programme or be deputed to another Institute at the discretion of the Director, after considering the internal facilities available and the expertise needed in the department. The Institute will make available to the faculty the required equipments, consumables and travel support.
  - (iv) During the contract period, if an incumbent shows poor progress on his Ph. D. work or dereliction of duty in teaching, the contract may be terminated prematurely after an enquiry by the ACoFAR, with at least one external expert. Necessary clauses to this effect must be built into the contract at the beginning of the appointment.
  - (v) On award of Ph. D. degree, an incumbent will be given regular position with effect from the date of original contract appointment with probation of one year after regularisation. For all future records, the starting point of service will be the date on which the contract service started originally.
  - (vi) During the contact period, the appointee will be put in pay band PB-3 with at least 2 non-compounded increments (for M. Tech. degree). He will also be entitled to the usual increments and allowances and to all other benefits such as P. F., Pension, future gratuity etc. at par with the facilities extended to regular faculty.

## Annexure V

**Distribution of Faculty Posts among Departments**

Every institute shall have only a finite member of faculty posts sanctioned by the ministry. The distribution of these positions among the departments will be flexible to dynamically maximize the number of faculty in position at any given time. It should be appreciated that institutes will be losers and the cause of education will be hampered if faculty positions which could be filled up in other departments are kept vacant simply because current market scenario is making faculty unavailable in a specific department. Instead of keeping vacant positions, if additional faculty are inducted in other departments, they will contribute to (a) elective courses in teaching, particularly those electives that are subscribed to by students across many departments, (b) research, (c) continuing education, (e) institute, hostel and SAC management etc. A vacant faculty post serves no one. At the same time, it is the responsibility of the Director, and of the Board, to ensure that no department starves of faculty when candidates are available and posts are used up elsewhere.

The following table may be taken as a guide for computing “normal faculty strength” in any department.

B Tech Programme (Annual Intake < 50)	= x
B Tech Programme (Annual Intake > 50)	= 1.5 x
Dual degree with existing M. Tech. specialization	= 0.1 x
Dual degree with exclusive M. Tech. specialization	= 0.2 x
Additional B Tech Programme(Each programme)	= 0.5 x
M Tech programme(Each programme)	= 0.5 x
M.Sc. (2 years) programme	= 0.5 x
M.Sc (5 years) programme	= x
MBA Programme (Annual Intake <50)	= x
MBA programme (Annual Intake >50)	= 1.5 x
MCA ( 3 Years ) Programme	= x
Common theory courses for 1 <sup>st</sup> & 2 <sup>nd</sup> years (per subject)	= 0.2 x
Common practical courses for 1 <sup>st</sup> & 2 <sup>nd</sup> years (per course)	= 0.1 x

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$$\text{Total} = nx$$

$$x = [\text{Sanctioned faculty strength}] \div n$$

**Table (Annexure) 5**

The normal strength of every department shall be computed based on the above scheme, additional factors taken into consideration, rounded and approved by the Institute Senate to serve as a guideline for all future recruitment. In case of serious disagreement among members the Senate, the decision of the BOG shall be binding.

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The above prescription is based on a principle of equal sharing of teaching responsibility among all faculty members irrespective of rank. In contrast with the prescription of AICTE, professors of NIT are expected to take up a larger share of the teaching job, particularly in large classes and in common fundamental subjects. This principle has the merit of providing better education in basic subjects, It frees younger faculty to pursue research, particularly those who are enrolled in Ph.D programmes. Experienced faculty are also expected to spend less time in preparing for classes and spend the rest of the time in institute management.

Additional factors shall include, but will not be limited to, expected student strengths in common courses, open electives, being normally offered by the department, common subjects among M Tech specializations, strength of M Tech courses etc. In general, departments and centres can be classified into two or three groups depending on the above formula and faculty strength calculated for each group.

## Annexure VI

### **Adjunct, Honorary, Chair, Emeritus, Contractual, Visiting, Ad hoc and Temporary Faculty**

In addition to its regular faculty, an institute may augment its intellectual capital by hiring additional scholastic resource through different types of secondary faculty positions. Such faculty members contribute significantly to the department in terms of sharing teaching tasks and enhancing research output. Academic contributions and decisions (e.g. award of grades) of such faculty members shall have the same legal validity as those of regular faculty members. The primary purpose of hiring adjunct, honorary, chair, emeritus and visiting faculty is to receive the honour of hosting distinguished professionals and academicians, and not off-loading of routine teaching activity. In contrast, the primary purpose behind hiring ad hoc, temporary or contractual faculty is to provide routine teaching services, particularly when adequate number of regular faculty are not available.

The appointing authority of adjunct, honorary and chair professors shall be the senate while that for emeritus professors and contractual faculty shall be the BOG considering that in the latter case Government money needs to be spent on salary. Director may appoint ad hoc and temporary faculty, who need to be given appointment at short notice and do not constitute a long term responsibility of the institute. The following guidelines will give the administrative details of hiring additional faculty.

#### **(a) Adjunct Faculty**

Reputed scientists, engineers, physicians, advocates, artists, civil servants, bankers and other professionals, both serving and retired(from active service), can be inducted as Adjunct faculty. They will bring reputation to the institute, add valuable expertise and practical knowledge and complement the knowledge pool of existing faculty. The following will be some broad guide lines for selection of adjunct faculty.

- (i) They must be persons of repute, comparable to at least the top one third of the regular faculty in professional expertise and reputation in their own fields and organizations.
- (ii) Adjunct faculty will supervise student projects at all levels - UG to Ph.D., carry out sponsored research and consultancy, and teach courses, all these activities either independently or in collaboration with a regular faculty. They may also be members of departmental committees, if their professional experience becomes useful. While teaching courses, they may take responsibility of a full semester-long course or only a part thereof in collaboration with a regular faculty. The degree of involvement will be worked out mutually by the adjunct faculty and the Institute.
- (iii) Adjunct faculty will be appointed by the senate on recommendation of a committee headed by the director. Duration of appointment shall be between 1 and 5 years.
- (iv) Adjunct faculty will be provided with office room, secretarial services and other facilities depending on their involvement in academic activities.
- (v) They shall receive no salary, fee nor any other compensation for their services. All direct expenses such as travel, accommodation, preparation of lecture material etc. shall be reimbursed at actuals.
- (vi) Adjunct faculty may receive financial support at the discretion of the director to attend conferences in India or abroad for presenting their work done in the institute, if in the opinion of the director, he has contributed significantly to the institute's academic programme.

### **Honorary Faculty**

Institutes may honour distinguished academicians including its own retired faculty members by conferring on them the status of “Honorary Faculty”. This status will be same as adjunct faculty except that:-

- (i) Honorary faculty will be drawn from distinguished persons retired from active service, including the Institute’s own retired faculty, who commit to be engaged in substantial scholastic activity using facilities of the Institute and contribute academic services to the institute without compensation.
- (ii) Duration of appointment shall be “for 5 years” or “for life”.
- (iii) Directors of institutes appointed by the visitor in accordance with the provisions of NIT Act and statutes will automatically be “Honorary faculty for life” on completion of their tenure of service, irrespective of their level of engagement in institute activity in future.

### **Chair Professors**

The Board may create a position of chair professor in a given department with or without a fixed specialization from money donated by an external agency or person. If sufficient funds are available to pay full salary and other benefits from the interest money, a new faculty post with terms identical to regular posts may be created. On the other hand, if limited funds are available, an existing regular faculty position or a secondary position under adjunct, honorary, visiting or contractual categories may be declared as an external chair where the donation received from the external agency will provide such benefits as top-up salary, travel grant or any other benefit to the incumbent.

### **Professor Emeritus**

Faculty superannuating from service in NITs and comparable institutions may be inducted by the Board as Professor Emeritus for a maximum period of 3 years. This provision is limited to faculty with suitable externally sponsored projects or comparable activities, in addition to shouldering normal teaching responsibilities. Such appointment shall be made against sanctioned faculty posts only.

### **Faculty on Contract**

When regular faculty positions cannot be filled, to Board at its discretion, may fill up sanctioned faculty positions “on contract”, where the terms of separation will be far easier than those of regular faculty. Other facilities and mode of selection, to the extent possible, will be same as those for regular faculty. Examples of contractual faculty will include Assistant Professors without Ph.D. degree under the 3 tier system or Assistant Professors during the first 3 years after Ph.D. under the 4 tier system, faculty considered in absentia, and distinguished professors and engineers/scientists who have retired from other organizations.

### **Visiting Faculty**

Academic personnel from universities, institutes, R&D labs, industry or Government in India or abroad, including those on sabbatical leave from other institutions or retired, may be inducted into the institutions for brief periods (Maximum 2 years), with or without remuneration. Such faculty members are expected to work full time taking academic responsibilities at par with regular faculty members. They may be appointed by Director on recommendation of the Head of the department, and a counterpart faculty member in the department who will serve as a host. Visiting faculty may be provided with mutually agreed honorarium and facilities (e.g. residential accommodation) on discretion of Director.

### **Ad. hoc appointments**

To meet urgent need of faculty or to retain a brilliant candidate, the Director is empowered to make ad hoc appointment against sanctioned posts at all levels. Such appointment can be done for a maximum duration of 12 months, and shall not be extended even with breaks. A reasonable pay band, pay and AGP may be worked out, and increment may also be given as per rules. This pay shall not be binding on the selection committee, which may make its own decision, the formal appointment, if at all, shall carry its own pay unrelated to the ad hoc pay. Facilities such as residential accommodation, travel etc., normally available to faculty members, may be extended at discretion of Director. The director will make his decision basing on the recommendation of a small committee of senior faculty colleagues which will include at least one internal Board member, and one external subject expert. A Ph.D. degree with a superior academic career is a minimum requirement for ad hoc appointment at Assistant Professor level. Commensurate work experience in institutions of repute is necessary for higher posts.

### **Temporary Faculty**

The director may recruit "Temporary faculty" against sanctioned posts to tide over serious shortage of faculty to handle UG & PG teaching load. This will be possible only in departments where the number of faculty in position, not counting teachers on long leave, is below 0.75 x normal strength. The candidates need to have at least a Master's degree in Engineering or a doctorate in science/humanities with first class(60% marks or (GPA 6.5/10) at both bachelor's and master's level. Selection can be made on recommendation of a committee of faculty members that must include at least one internal board member and one faculty member of another department. Presence of an external subject expert is not essential.

Duration of appointment shall be one semester to start, and may be extended on semester to semester basis on recommendation of the HOD. Maximum duration of appointment in the entire career of a person shall be limited to 5 semesters. A consolidated remuneration, proportional to the assigned duties may be worked out on mutual agreement. The temporary faculty may be permitted to work full time or part time depending on the remuneration paid to him. In addition to the consolidated remuneration, director may, at his discretion, extend residential accommodation, telephone, travel and other facilities in absentia, and distinguished professors and engineers/scientists who have retired from other organizations.

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### *Annexures*

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**PART-C**

**DECLARATION**

I undertake that the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, and NBA expert visit guidelines in force as on date; and the institute shall fully abide by them.

It is submitted that information provide in this Self-Assessment Report is factually correct. I understand and agree that an appropriate disciplinary action against the institute will be initiated by the NBA in case any false statement/information is observed during pre-visit, visit, post-visit, and subsequent to grant of accreditation.

  
19/06/2018  
**Prof. (Dr.) Rakesh Sehgal**  
**DIRECTOR**  
**Director**  
**National Institute of Technology**  
**Srinagar (J&K)**

Date: June 20, 2018

Place: NIT Srinagar