|  |  |  |
| --- | --- | --- |
| VISION  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. |  | MISSION  The broad mission of NIT Srinagar is to a create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture and technically education and broadly talented engineers, future innovators and entrepreneurs graduate not only to understand the needs and the problems of the industry, the society, the state, and the nation, but also address to the same with the highest degree of confidence, professional excellence and engineering ethics. |

OBJECTIVES

* To provide the best educational infrastructure for imparting high class education in science and technology and a creative atmosphere for inter-disciplinary research both by the students and the faculty.
* To enhance the quality of teaching by strengthening the teachers professional capabilities to meet the growing educational aspirations of students.
* To upgrade the syllabus and re-frame the course curriculum periodically in order to produce creative and capable engineers who meet effectively the growing job requirements.
* To inculcate amongst the students the highest standards of honesty, accountability, moral integrity, tolerance for diversity, and respect for ethnic and religious differences so as to make them good human beings.
* To develop amongst the students a strong personal commitment, as a member of the engineering professional, towards social outreach activities.
* To produce engineers having ethics of engineering profession, complete confidence in decision making and a good social outlook in all their activities so that they perform their duty to the best satisfaction of the organization and to the society.
* To maintain global standards in student-faculty ratio, scientific research output, research publications in technical journals of repute, and placement of students.
* To participate in and contribute to nation building through various flagship schemes of the Government of India / State governments requiring technological interventions thereby spurring economic growth for the welfare of the masses.
* To provide "research and development consultancy" to the respective industries so as to foster a healthy industry-academia partnership and develop a competitive edge to the indigenous manufacturing.



***It gives me immense pleasure to present the 58th Annual Report of National Institute of Technology Srinagar, Hazratbal, Kashmir (J&K) for the year 2017-18. The Institute formerly known as Regional Engineering College Srinagar was established in the year 1960 , offers eight (08) B.Tech programmes in various branches of Engineering, eleven (11) P.G. programmes ( M.Tech./ M.Sc.) in addition to Ph.D programmes in all the Departments and also M.Phil programme in the faculty of Applied Sciences. During the period under report, faculty members of the Institute actively participated in National and International Conferences/Seminars, Workshops, expert lectures and other related research activities and presented a good number of papers in these Conferences/Seminars. Apart from these activities, many R&D sponsored projects are in progress.***

***The Institute rendered useful services to other sister Institutions and continued to offer expertise and consultancy services to various government/semi-government/public and private organizations. The Institute has also signed MoUs with some NITs, IITs, Research Organizations to strengthen teaching learning and research projects.***

***The Department of Training and Placement is making all the efforts in having National and Multinational companies for placement of students of the Institute. Many of them visited the Campus for placement. A good number of students have been placed through Campus Selection.***

***The students are also taking active part in co-curricular and extra-curricular activities within and outside the Institute. Students of the Institute participated in the sports activities outside the Institute also and won medals for the Institute.***

***I place on record my sincere gratitude to Ministry of Human Resource Development, Department of Higher Education, Government of India, Members of the BOG/FC/Senate, Faculty, Staff and the students of this Institute for their co-operation and support in running day to day affairs of the Institute smoothly.***

***At the end, I record my appreciation for the team under the overall supervision of Dr. S. K. Bukhari, I/C Registrar of the Institute for compilation of the Annual Report for the year 2017-18.***

***C:\Users\Administrator\Desktop\Signatures of Prof. Sehgal.png***

***(Prof. Rakesh Sehgal)***

***Director***

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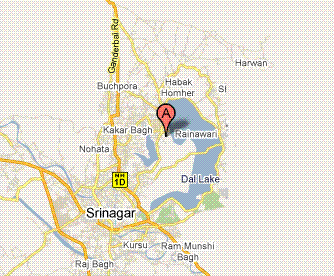
**1.0. INTRODUCTION**

1.1. HISTORICAL BACKGROND

The National Institute of Technology Srinagar (NIT Srinagar), (erstwhile Regional Engineering College), was established in July, 1960, by the joint venture of Govt. of India and the State Government during the 2nd plan period. It was one among the first batch of 8 such Institutes which were set up in the country. The other seven Institutes were Allahabad, Bhopal, Durgapur, Jamshedpur, Nagpur, Surathkal, and Warangal.The Institute initially started functioning in the historical *Chinar* garden of *Naseem Bagh* at *Hazratbal,* Srinagar, adjacent to the campus of University of Kashmir on the North side which is about 1.5 kilometres away from the present Campus which was acquired for the Institute simultaneously and work of construction started. The Institute started shifting to the present campus in 1966.

In 2003 the Institute was declared as National Institute of Technology with Deemed University Status by the Ministry of Human Resource Development (MHRD), Govt. of India and University Grants Commission (UGC). Even going through the difficult times in the valley since 90’s, the Institute has proved its mettle through its output at various levels and has become a prestigious Institute of the region. The Institute also suffered a huge infrastructural loss due to 2014 floods and is presently trying to overcome it.

**1.2. THE CAMPUS & ITS LOCATION**

The Institute is located in Srinagar, the summer capital of J&K at Hazratbal, Srinagar 10 km from the city centre. The Campus is surrounded by the scenic Himalayan ranges, the Zabarwan moutains and world famous Dal Lake on its East side and the most revered shrine of the Country Hazratbal Shrine on the North side. Hazratbal is well connected with most parts of the city and valley by a motorable road and other transport service. The campus is about 22 km away from the Srinagar International Airport. It falls on National Highway to Ladakh. The nearest railway station is Nowgam which is located about 18 km from the Institute Campus. The campus is connected with Jammu / Delhi by Srinagar-Jammu National Highway 44 which passes through high mountain passes which are picturesque and enjoyable, and can be covered in about 7-8 hours by a private taxi/car. The Institute is having a lush green campus spread over 67 acres of land on the banks of world-famous Dal Lake.

The Institute is residential with accommodation facility for students and staff in hostels and Residential Quarters. There are seven boys and two girls hostels which accommodate about 2000 boys and 200 girls with separate mess facility for each hostel.

Almost all necessary facilities and amenities are available in the campus which include Cafeteria, Shops, Bank, Medical Unit with ambulances, Guest House, Students Activity Centre, Gymnasium, Computer Services Centre with internet facility, Bus facility, Centralized Library etc.

1.3 ADMINISTRATION

National Institute of Technology Srinagar (J&K) is an autonomous Institute under the direct control of Ministry of Human Resource Development (MHRD), Government of India (GOI). The Institute functions under the overall guidance and control of Board of Governors (BOG). Director is the academic and executive head of the Institute. He is the Ex-Officio member of the Board of Governors and is responsible for maintaining proper administration and discipline and imparting instructions for smooth functioning and overall development of the Institute.

Director is assisted in the day-to-day affairs of the Institute by the Registrar, Deans, Heads of the Departments & Centres, Various committees and other officers. The various other Important Committees in addition to BOG, responsible for advising in respect of the various matters of the Institute, include:

**Senate** for Academic Affairs

**Finance Committee (FC)**  for Financial Matters

**Building Works Committee (BWC)** for Developmental Works

**2.0 ACADEMICS**

2.1. Education System

* 4- years full time Bachelor of Technology degree courses offered in (1) Chemical Engineering, (2)Civil Engineering, (3) Computer Science Engineering, (4) Electrical Engineering, (5) Electronics and Communication Engineering, (6) Information Technology, (7) Mechanical Engineering and (8) Metallurgical and Materials Engineering branches.
* Master of Technology (M.Tech) degree courses on full time & part- time basis offered in Chemical Engineering, Civil Engineering, Electrical Engineering, Electronics & Communication Engineering and Mechanical Engineering departments.
* The duration of M.Tech. course is of two years ( four semesters) for full time students and 3 years for those admitted under part-time. Part time enrolment is given only to sponsored candidates.
* Doctor of Philosophy (Ph.D.) degree is awarded by the Faculty of Engineering in all branches of engineering available in the Institute.
* Master of Philosophy and Doctor of Philosophy is awarded by the faculty of Applied Science and Humanities & Social Science Department.
* The academic session is divided into two semesters, an autumn semester (August–December) and a Spring semester (March–July).
* The Semester system is enforced at both under-graduate (U.G.) and post graduate (P.G.) levels.
* The Senate approves the academic calendar consisting of schedule of activities for the whole year including dates for registration, semester examinations, inter-semester breaks, sports activities, annual day etc.
* Medium of instructions and examination for all courses including writing of dissertations of B.Tech. /M.Tech. /M.Phil. and Ph.D. thesis is British English.
* 05 days week period with at least 90 working days in each semester.
* Week days used for E.C.A. and other such activities.
* Credit Based continuous Assessment System with one midterm and one major examination in each semester.
* Compulsory Practical training & visits to the work sites both at graduate and post graduate levels.

**2.2.ACADEMIC PROGRAMMES:**

The Institute offered various academic programmes comprising of (08) B.Tech. programmes in eight branches of engineering; (10) M. Tech. programmes in 05 engineering departments, M.Phil. programme in Sciences and HSS departments and Ph.D. programme in all the engineering, science and HSS departments.

The Institute has eight Engineering Departments, four Allied Departments and three Centres. These are:

**2.2.1 Engineering Departments**

i) Chemical Engineering , ii) Civil Engineering, iii) Computer Science& Engineering iv) Electrical Engineering v) Electronics and Communication Engineering vi) Information Technology vii) Mechanical Engineering viii) Metallurgical and Materials Engineering

**2.2.2 Allied Departments**

1. Mathematics ii)Physics, iii)Chemistry and iv)Humanities &Social Sciences.

**2.2.3 Centres**

i) Central Research Facilities Centre ii)Computer Services Centre iii) Innovation, Incubation & Entrepreneurship Development Centre vi) Maintenance Engineering Centre v)Water Resources Management Centre

**2.3.COURSES OFFERED**

**2.3.1. B.Tech. Degree programme**

The Institute offers four years (eight semesters) full- time B.Tech. Degree Programme in the following branches of engineering:-

1. Chemical Engineering;

2. Civil Engineering;

3. Computer Science Engineering;

4. Electrical Engineering;

5. Electronics and Communication Engineering;

6. Information Technology;

7. Mechanical Engineering;

8. Metallurgical and materials Engineering.

**2.3.2. M.Tech. Degree Programme**

The Institute offers both full- time / part-time M.Tech. Degree Programmes in the following engineering disciplines:

|  |  |  |
| --- | --- | --- |
| 1. | Structural Engineering | Civil Engineering |
| 2. | Water Resources Engineering | Civil Engineering |
| 3. | Geotechnical Engineering | Civil Engineering |
| 4. | Transportation Planning & Engineering | Civil Engineering |
| 5. | Communication and Information Technology | Electronics & Comm. Engg. |
| 6. | Micro Electronics | Electronics & Comm. Engg. |
| 7. | Mechanical System Design | Mechanical Engineering |
| 8. | Industrial Tribology and Maintenance Management | Mechanical Engineering |
| 9. | Electric Power and Energy System | Electrical Engineering |
| 10. | Chemical Engineering | Chemical Engineering |
| **2.3.3. M.Sc. Degree Programme** | | |
| 1 | Applied Physics | Physics Department |

**2.3.4. M. Phil Programme**

The Institute offers full- time /part- time M.Phil. Degree Programme in the following departments:

1. Physics

2. Chemistry

3. Mathematics

4. Humanities and Social Sciences

**2.3.5. Ph. D. Programme**

The Doctoral Degree programmes are being offered in all the Engineering and Allied Departments. These programmes are offered on both full-time and part-time basis. **About 150 research** fellowships have been sanctioned with Scholarships at the rate as approved by MHRD from time to time.

**2.4.ADMISSION PROCEDURE**

**2.4.1 Undergraduate Courses**

As per the policy of Government of India for NIT’s, admission to U.G. programmes is made on the basis of the merit in National Level Test Joint Entrance Examination ( JEE) Mains, conducted by Central Board of Secondary Education (CBSE) New Delhi. 50% of sanctioned intake of 675 seats for B.Tech. is filled from domicile candidates of J&K State and 50% from candidates of other States, purely based on the merit/ranking in JEE Main Examination through a centralized on-line counselling system devised by the MHRD. In addition the Institute also has a sanctioned intake of 53 seats for students under DASA programme.

**2.4.2 Post-graduate courses**

The admission for Post graduate courses is made through CCMT based on GATE scores. However, admissions through a written test and Gate Score for sponsored candidates on full time and part-time basis is also available for in-service candidates interested in seeking admission in Post graduate Programmes.

The M. Tech Programme is of two years spread(four semesters) and a total number of 60 credits are required to be earned for its award. The coverage of various courses, labs, seminars, field work, dissertation etc is an essential part of the M.Tech. programmes.

**2.4.3M. Phil / Ph.D.**

The Selection of candidate for M. Phil/ Ph.D. Programme is made through an Entrance test followed by viva voce examination conducted by the concerned Departmental Research Committee (DRC). The candidates with satisfactory performance are selected for M. Phil/ Ph.D. Programme.

**2.5. ACADEMIC CALENDAR**

The following Academic Calendar prepared by the Institute and approved by the Senate, was notified for the students and staff. The Academic Calendar is prepared in such a way so that all the curricular, co-curricular, extra-curricular and other related activities/programmes of the students are well distributed over the semester period.

**Institute Academic Calendar for the Year-2017-18**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ACADEMIC CALENDAR OF NIT SRINAGAR FOR THE YEAR 2017-18**  **SPRING SESSION** | | | | | | |
| **S. No.** | | **Activity** | **Date** | | | |
| **From** | | **To** | |
| 1 | | **Registration** | | | | |
| B. Tech 8th Semester | 15-03-2017 | | 17-03-2017 | |
| B. Tech 2nd  & 4th semesters | 27-03-2017 | | 29-03-2017 | |
| B. Tech 6th and M. Tech/M. Sc. 2nd & 4th semesters | 03-04-2017 | | 05-04-2017 | |
| Ph. D Spring : Normal | 01-03-2017 | | 15-03-2017 | |
| Late | 16-03-2017 | | 25-03-2017 | |
| 2 | | **Commencement Of Classes** | | | | |
| B. Tech 8th Semester | 20-03-2017 | |  | |
| B. Tech 2nd & 4th Semesters | 30-03-2017 | |  | |
| B. Tech 6th and M. Tech/ M. Sc.2nd & 4th Semesters | 06-04-2017 | |  | |
| 3 | | **Even Supplementary Examinations for belated Autumn-2016 Semester** | 03-04-2017 | |  | |
| 4 | | **Minor Examination** | | | | |
| B. Tech 8th Semester | 19-04-2017 | | 21-04-2017 | |
| B. Tech. 2nd, 4th & 6th;M.Tech/ M. Sc. 2nd & 4th Semesters and Ph. D | 08-05-2017 | | 10-05-2017 | |
| 5 | | **Extra Curriculum Activities** | 11-05-2017 | | 13-05-2017 | |
| 6 | | **Alumni Meet-2017** | 14-05-2017 | | 14-05-2017 | |
| 7 | | **Mid-term Examination**  ( To be conducted instead of Minor-1 & Minor-2 if approved by Senate) |  | |  | |
| B. Tech 8th Semester | 08-05-2017 | | 11-05-2017 | |
| B. Tech: 2nd , 4th & 6th ;M.Tech/M. Sc.2nd & 4th Semesters and Ph. D | 22-05-2017 | | 24-05-2017 | |
| 8 | | **Minor-2 Examination** | | | | |
| B. Tech 8th Semester | 22-05-2017 | | 24-05-2017 | |
| B. Tech. 2nd, 4th & 6th;M.Tech/ M. Sc. 2nd & 4th Semesters and Ph. D | 05-06-2017 | | 07-06-2017 | |
| 9 | | **B. Tech Project viva-voce Exam** | Latest by 26-06-2017 | | | |
| 11 | | **Major Examination** | | | | |
| B. Tech 8th Semester | 12-06-2017 | |  | |
| B. Tech. 2nd, 4th & 6th;M.Tech/ M. Sc. 2nd & 4th Semesters and Ph. D | 03-07-2017 | |  | |
| 12 | | **Special Supplementary Examination for 8th Semester** | 10-07-2017 | |  | |
| 13 | | **Supplementary Examination for Odd semester** | 19-07-2017 | |  | |
| **AUTUMN SESSION** | | | | | | |
| **S. No.** | **Activity** | | | **Date** | | |
| **From** | | **To** |
| 01. | **Registration** for U.G, P.G & Ph. D | | | 26-07-2017 | | 28-07-2017 |
| Late Registration for U.G, P.G & Ph. D | | | 31-07-2017 | | 01-08-2017 |
| 02. | **Commencement of Classes** | | | 31-07-2017 | |  |
| 03. | **Tech. Fest** | | | 04-08-2017 | | 06-08-2017 |
| 04. | **Fresher’s Orientation Day** | | | 3rd week of August | | |
| 05. | **Minor-1 Examination for U.G, P.G & Ph. D** | | | 04-09-2017 | | 06-09-2017 |
| 06. | **Extra Curricular Activities** | | | 07-09-2017 | | 10-09-2017 |
| 07. | **Mid Term Examination**  (To be conducted instead of Minor-1 & Minor 2 if approved by Senate) | | | 18-09-2017 | | 20-09-2017 |
| 08. | **Convocation** | | | Last week of September to  1st week of October | | |
| 09. | **Minor- 2** Examination for U.G, P.G & Ph. D | | | 04-10-2017 | | 06-10-2017 |
| 10. | **Major Examination** for U.G, P.G & Ph. D | | | 06-11-2017 | |  |
| 11. | **Supplementary Examination** for even semester | | | 20-11-2017 | |  |
| 12. | **Winter Vacation** for students | | | 01-12-2017 | |  |

**2.6. STUDENTS**

The student strength of the Institute is around 2600. The Institute has been able to attract the students from all parts of the Country. Students of NIT Srinagar in addition to doing well in academics, also take part in other co-curricular and extra-curricular activities as well with lot of enthusiasm. The students actively participate in the Institute affairs. The welfare of students is one of the major priorities of the Institute. For this purpose Students’ welfare wing works towards the holistic development of the students.

**2.7.EXAMINATION AND EVALUATION:**

All under graduate, post graduate and M.Phil./ Ph.D. examinations, of the Institute are conducted centrally by the Examination Section of the Institute. The medium of examination for all examinations including dissertations and thesis is British English.

The performance of a student is evaluated in terms of two indices viz; the Semester Grade Point Average (SGPA) for a semester and Cumulative Grade Point Average (CGPA) which is the Grade point index for all the completed Semesters at any point of time. The Semester Grade Point Average (SGPA) is calculated on the basis of grades obtained in all courses in a semester and Cumulative Grade Point Average (CGPA) is calculated on the basis of pass grade in all completed semesters.

For each course, a grade is awarded on the basis of two written examinations in the case of theory papers i.e. Mid-term and Major Examinations with weight-age of 30 and 60 marks, respectively. 10 marks are reserved for class performance and attendance of the student in the course. The paper setting and evaluation is done at the concerned Department level and monitored by a Departmental Monitoring Committee (DMC). Mid-Term examination answer scripts are returned to students and the major answer scripts are shown to them before submission of grade to the DMC.

B.Tech. students are required to submit a project report at the end of the 8th semester, which starts in 7th semester. It is to be submitted in the form of a bound thesis. The Heads of the Departments constitute a Project Evaluation Board (PEB) which assesses each individual project of the students. The evaluation is done in the following manner:-

|  |  |  |
| --- | --- | --- |
| **SUPERVISOR**  **40%** | **EVALUATION BOARD**  **60%** | |
| Based on the work  done by the student during the tenure of the Project) | 20% for Project Report Contents & Quality | 40 %  For Presentation & viva voce |

The Project Evaluation Board comprises of:-

1. Head of the Department concerned ii) One senior most faculty member of the concerned department iii) Supervisor concerned and iv) One expert from any other sister Department of the Institute for B.Tech.

In case of M.Tech. the expert is from outside the Institute, nominated by Director from an approved panel.

**2.8.PLACEMENTS**

The Institute has a well established Training and Placement (T &P) Department which takes care of the Technical/Industrial training and the Placement of the Students. The T & P Department is usually headed by a senior faculty member. The Department of T&P arranges for the industrial/work training of the students which is an essential requirement at 5th/7th semester levels of B.Tech. program and it also takes care of on-campus placement of the students by inviting /interacting with various agencies. Students from different departments of the Institute are also involved in the relevant activities of the T&P Department. The T&P Department also arranges trainings for the students for their better performance in interviews and other presentations.

**2.9.GAMES & SPORTS:**

The sports activities of the Institute are looked after by the Physical Education Section of the Institute. The Section puts in every effort to develop the sports activities for the bona-fide students of the Institute. The students are provided all possible facilities for their active participation in co-curricular and extra- curricular activities. They are also encouraged and provided all opportunities to participate in all major sports events including participation in inter-branch, inter-semester, inter-NIT, games/sports and other competitions. Besides this they are involved in a wide spectrum of social, cultural and technological activities throughout the year.

Both genders are fully exposed to higher level of competitions conducted at national and state level.

**2.10.CAMPUS INFRASTRUCTURE**

For maintenance and development of the campus infra-structure, the Institute has Planning and Development Wing which has three separate divisions of Civil Construction, Estates and Electrical Maintenance & Repairs.

The present campus is spread over 67 acres of land on the banks of World famous Dal lake. The land area available being insufficient, the Institute continues its efforts to provide the necessary infra-structure for better academic standards. Acquisition of additional land for the campus is also under consideration and it is hoped that in near future the Institute will succeed in acquiring additional campus.

For every Department of the Institute there are well established required laboratories, class rooms and other facilities. The Institute Campus being a residential one, has the residential facilities for both students and staff of the Institute. The construction of a Mega Hostel, Auditorium, Specious Guest House are under consideration of the authorities to meet the additional requirements of the accommodation resulted from the increased in-take of the students and from other co-curricular activities.

The Institute has all basic and required amenities for the students and staff which include Medical Unit, Computer Services Centre, Well Maintained Play Ground, Recreational Centre, Students Activity Centre, Gymnasium, Transport facility etc.

**2.11.STAFF POSITION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No: | | Position | Staff  sanctioned | Staff in position |
| 1.Academic Staff: | | | | |
|  | Director | | 01 | 01 |
|  | Registrar | | 01 |  |
|  | Faculty | | 198 | 78+8 ( Trainee Teachers) |
| 2 Sr. Administrative Staff 20 02  3. Non-Teaching Staff 198 243  NB:The excess staffis due to restructuring of the non- teaching staff of the NITs as per MHRD orders. | | | | |

**3.0 ACADEMIC STATISTICS**

**3.1. COURSES OFFERED**

**B.Tech. Courses**

|  |  |  |
| --- | --- | --- |
| **DISCIPLINE** | **SANCTIONEDINTAKE** | **ADMISSIONS made**  **2017-18** |
| Chemical Engineering | 77 + 3(DASA) | 62 |
| Civil Engineering | 123 + 10(DASA) | 114 |
| Computer Science Engineering | 62 + 7(DASA) | 67 |
| Electrical Engineering | 77 + 7(DASA) | 74 |
| Electronics and Communication Engineering | 77 + 7(DASA) | 74 |
| Information Technology | 62 + 7(DASA) | 59 |
| Mechanical Engineering | 77 + 9(DASA) | 78 |
| Metallurgical Engineering | 77 + 3(DASA) | 19 |
| Total | 632 + 53(DASA) | 547 + 0 (DASA) |

M.Tech. Courses

|  |  |  |
| --- | --- | --- |
| DISCIPLINE | INTAKE | ADMISSIONS 2017-18 |
| Water Resources Engineering  (Civil Engineering Department) | 15 | 12 |
| Structural Engineering  (Civil Engineering Department) | 25 | 24 |
| Communication and Information Technology  (Electronics and Comm. Engineering) | 25 | 18 |
| Micro Electronics | 13 | 09 |
| Mechanical System Design  (Mechanical Engineering) | 25 | 13 |
| Industrial Tribology and Maintenance Management | 26 | 11 |
| Electric Power & Energy System | 26 | 17 |
| Transportation Engg | 18 | 14 |
| Geo-Tech | 17 | 14 |
| Chemical Engineering | 18 | 04 |
| Total | 208 | 136 |

**M.Sc. Physics**

|  |  |  |
| --- | --- | --- |
| **DISCIPLINE** | **INTAKE** | **ADMISSIONS**  **2017-18** |
| M.Sc. Physics | **25** | **03** |

**M.Phil /Ph.D. Programmes: 150 annually.**

3.2. **COURSE WISE ENROLMENT WITH CATEGORY/ GENDER BREAK-UP:**

**3.2.1 Seat Matrix- B.Tech Level 2017-18**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Quota** | **Degree** | **Branch** | **OP** | **OPPH** | **SC** | **SCPH** | **ST** | **STPH** | **OBC** | **OBCPH** | **TOTAL** |
| Other State (50%) | B.Tech | CSE | 15 | 01 | 05 | - | 02 | - | 08 | - | 31 |
| IT | 15 | 01 | 05 | - | 02 | - | 08 | - | 31 |
| Civil | 29 | 02 | 08 | 01 | 05 | - | 15 | 01 | 61 |
| Mech | 19 | 01 | 06 | - | 03 | - | 09 | 01 | 39 |
| Elect | 19 | 01 | 06 | - | 03 | - | 09 | 01 | 39 |
| E&C | 18 | 01 | 06 | - | 03 | - | 09 | 01 | 38 |
| Chem | 19 | 01 | 06 | - | 03 | - | 09 | 01 | 39 |
| M&MT | 18 | 01 | 06 | - | 03 | - | 09 | 01 | 38 |
| **Total** | **152** | **9** | **48** | **01** | **24** | **-** | **76** | **6** | **316** |
|  | | | | | | | | | | | |
| Home State (J&K) (50%) | B.Tech. | CSE | 15 | 01 | 05 | - | 02 | - | 08 | - | 31 |
| IT | 15 | 01 | 05 | - | 02 | - | 08 | - | 31 |
| Civil | 29 | 02 | 08 | 01 | 05 | - | 16 | 01 | 62 |
| Mech | 18 | 01 | 06 | - | 03 | - | 09 | 01 | 38 |
| Elect | 18 | 01 | 06 | - | 03 | - | 09 | 01 | 38 |
| E&C | 19 | 01 | 06 | - | 03 | - | 09 | 01 | 39 |
| Chem | 18 | 01 | 06 | - | 03 | - | 09 | 01 | 38 |
| M&MT | 19 | 01 | 06 | - | 03 | - | 09 | 01 | 39 |
| **Total** | 151 | 9 | 48 | 01 | 24 | - | 77 | 6 | 316 |

**3.2.2Students enrolment –Category wise**

**B.Tech. :**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Students Enrolled** | | | | | | | | | |
| **Year** | **Batch** | **OP** | **SC** | **ST** | **OBC** | **DASA** | | **Total** |
| 2014 | Civil | **71** | **15** | **08** | **24** |  | | 118 |
|  | ELE | **47** | **08** | **05** | **13** |  | | 73 |
|  | ECE | **48** | **09** | **04** | **12** |  | | 73 |
|  | Chem | **39** | **09** | **05** | **12** |  | | 65 |
|  | Mech. | **47** | **09** | **05** | **13** | **01** | | 75 |
|  | Met. | **43** | **08** | **05** | **10** |  | | 66 |
|  | C. Sc. | **38** | **06** | **04** | **09** | **01** | | 58 |
|  | I.T. | **38** | **08** | **04** | **06** |  | | 56 |
|  |  | **371** | **72** | **40** | **99** | **02** | | 584 |
| 2015 | Civil | **51** | **17** | **07** | **34** | **01** | | 110 |
|  | ELE | **32** | **12** | **06** | **23** |  | | 73 |
|  | ECE | **32** | **12** | **05** | **22** |  | | 71 |
|  | Chem | **36** | **12** | **05** | **09** |  | | 62 |
|  | Mech. | **35** | **12** | **06** | **21** |  | | 74 |
|  | M&ME | **26** | **11** | **04** | **10** |  | | 51 |
|  | C. Sc. | **29** | **08** | **05** | **16** | **02** | | 60 |
|  | I.T. | **24** | **09** | **05** | **18** |  | | 56 |
|  |  | **265** | **93** | **43** | **153** | **03** | | 557 |
| 2016 | Civil | **32** | **16** | **08** | **22** | |  | **78** |
|  | ELE | **22** | **09** | **05** | **18** | |  | **54** |
|  | ECE | **18** | **07** | **04** | **15** | |  | **44** |
|  | Chem | **21** | **08** | **01** | **07** | |  | **37** |
|  | Mech. | **24** | **08** | **02** | **21** | |  | **55** |
|  | M&ME | **13** | **04** | **02** | **06** | |  | **25** |
|  | C. Sc. | **25** | **06** | **05** | **12** | | **03** | **51** |
|  | I.T. | **16** | **05** | **02** | **13** | |  | **36** |
|  |  | 171 | 63 | 29 | 114 | | 03 | 380 |
|  |  |  |  |  |  | |  |  |
| 2017 | Civil | **39** | **15** | **09** | **42** | | **0** | **105** |
|  | ELE | **26** | **12** | **05** | **24** | | **0** | **67** |
|  | ECE | **30** | **10** | **04** | **23** | | **0** | **67** |
|  | Chem | **24** | **18** | **03** | **11** | | **0** | **56** |
|  | Mech. | **25** | **12** | **06** | **28** | | **0** | **71** |
|  | M&ME | **04** | **04** | **03** | **0** | | **0** | **11** |
|  | C. Sc. | **24** | **09** | **04** | **22** | | **0** | **59** |
|  | I.T. | **24** | **08** | **02** | **18** | | **0** | **52** |
|  |  | 196 | 88 | 36 | 168 | | 0 | 488 |

Admission Statistics -B.Tech. (04- years)

**M.Tech. :**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Admission Made** | | | | | | |
| **Year** | **Programme** | **OP** | **SC/ST** | **Sponsored** | **OBC** | **Total** |
| 2016 | Water Resource Engg. | 06 | 01/01 | 02 | - | 10 |
|  | Mechanical System Design | 06 | 04/- | 05 | 03 | 18 |
|  | Structural Engineering | 13 | 03/01 | 03 | 02 | 22 |
|  | Industrial Tribology and Maintenance Management | 09 | 02/- | 03 | 01 | 15 |
|  | Communication Information Technology | 12 | 01/01 | 05 | - | 19 |
|  | Electric Power & Energy System | 11 | 02/01 | 05 | 01 | 20 |
|  | Transportation Engg | 06 | 02/01 | 05 | 03 | 17 |
|  | Geo-Tech | 06 | 01/01 | 05 | 01 | 14 |
|  | Micro Electronics | 05 | 01/- | 02 | 01 | 09 |
|  | Chemical Engineering | 02 | -- | 01 | - | 03 |
|  | **TOTAL** | **76** | **17/06** | **36** | **12** | **147** |
| **Year** | **Programme** |  |  |  |  |  |
| 2017 | Water Resource Engg. | 08 | 01 | 01 | 0 | 11 |
|  | Mechanical System Design | 09 | 01 | 01 | 02 | 13 |
|  | Structural Engineering | 16 | 03 | 01 | 03 | 23 |
|  | Industrial Tribology and Maintenance Management | 09 | - | - | - | 09 |
|  | Communication Information Technology | 15 | - | 01 | - | 16 |
|  | Electric Power & Energy System | 11 | 01 | 01 | 04 | 17 |
|  | Transportation Engg | 10 | - | 01 | 02 | 13 |
|  | Geo-Tech | 08 | 01 | 01 | 03 | 13 |
|  | Micro Electronics | 08 | - | - | 01 | 09 |
|  | Chemical Engineering | 02 | - | - | 01 | 03 |
|  | **TOTAL** | **96** | **07** | **07** | **16** | **127** |

**M.Sc. Physics:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **OP** | **SC/ST** | **Sponsored** | **OBC** | **Total** |
| **2015** | **03** | **-** | **-** | **-** | **03** |
| **2016** | **04** | **-** | **-** | **03** | **07** |
| **2017** | **02** | **-** | **-** | **01** | **03** |

**3.2.3. Students’ Enrolment Gender wise**

**a) B. Tech**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Batch | CIVIL | | ELE | | ECE | | CHEM | | MECH | | METT | | CSE | | IT | | TOTAL M/F |
|  | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |  |
| 2014 | 109 | 09 | 61 | 12 | 64 | 09 | 54 | 11 | 74 | 01 | 56 | 10 | 50 | 08 | 48 | 08 | 584 |
| 2015 | 96 | 14 | 60 | 13 | 58 | 13 | 56 | 06 | 74 | - | 41 | 10 | 59 | 01 | 48 | 08 | 557 |
| 2016 | 64 | 14 | 50 | 04 | 35 | 09 | 31 | 06 | 55 | - | 21 | 04 | 48 | 03 | 32 | 04 | 380 |
| 2017 | 95 | 11 | 60 | 07 | 56 | 11 | 46 | 11 | 71 | 01 | 12 | 02 | 53 | 07 | 43 | 10 | 496 |
| Total | 364 | 48 | 231 | 36 | 213 | 42 | 187 | 34 | 274 | 02 | 130 | 26 | 210 | 19 | 171 | 30 | 2017 |

**b) M. Tech. :**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Batch** | **WRE** | | **Mech. System Design** | | **Structural Engg** | | **Comm. & Information Tech** | | **Industrial Tribology & Maintenance Management** | | **Elect. Power & Energy System** | | **Transportation Engg** | | **Geo-Tech.** | | **Micro Electronics** | | **Chemical Engg.** | | **M.Sc. Physics-** | |
|  | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** |
| **2016** | 09 | 01 | 13 | 05 | 19 | 03 | 12 | 07 | 13 | 02 | 14 | 06 | 16 | 01 | 13 | 01 | 05 | 04 | 3 | - | 06 | 01 |
| **2017** | 06 | 06 | 13 | 0 | 22 | 02 | 11 | 07 | 11 | 0 | 16 | 01 | 13 | 01 | 11 | 03 | 04 | 05 | 04 | 0 | 11 | 25 |

**d) Ph.D. (Faculty of Engineering) :**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **ECE** | | **ELE** | | **CIT/CSE** | | **MECH** | | **Chemical** | | **MMED** | | **CIVIL** | |
|  | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| 2014-15 | - | 01 | - | - | 01 | - | - | - | 03 | - | - | - | - | - |
| 2015-16 | 06 | 03 | 09 | 033 | 02 | - | 15 | - | - | - | 02 | 01 | 15 | 03 |
| 2016-17 | 03 | 04 | 01 | - | 02 | 02 | 09 | 01 | 1 | - | 01 | 01 | 08 | 02 |
| 2017-18 | 04 | 14 | 13 | 07 | 06 | 05 | 17 | 03 | 01 | 0 | 02 | 01 | 37 | 09 |

*Ph.D. enrolment Gender wise (Faculty of Engineering)*

**e) Ph.D. (Faculty of Science) :**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Batch** | **Physics** | | **Chemistry** | | **Math** | | **HSS** | |
|  | M | F | M | F | M | F | M | F |
| 2013 | 13 | - | 11 | 4 | 5 | 2 | - | 1 |
| 2014 | 01 | - | - | 02 | - | - | - | - |
| 2015 | 05 | 01 | 06 | 01 | 02 | - | 02 | - |
| 2016-17 | 01 | - | 04 | - | - | - | - | - |
| 2017-18 | 09 | 03 | 08 | 02 | 0 | 0 | 0 | 0 |

*Ph.D. enrolment Gender wise (Faculty of Science)*

**3.3. STUDENTS’ TOTAL STRENGTH**

**3.3.1. Strength in Undergraduate Programme**

The below mentioned statement shows the student’s strength with each category in this Institute:-

OM 1003

SC 316

ST 148

OBC 534

DASA 08

**Total: 2019**

**3.3.2. Strength in M.Tech. Programme**

OM 170

SC/ST 35

Sponsored 10

OBC 40

**Total 255**

**3.3.3. M.sc Physics - 10**

**3.3.4. Ph.D. Programme - 316**

**4.0. DEPARTMENTS AND CENTRES**

The Institute has Eight Engineering Departments, Four Science and Allied departments and the five Centres. The departments are:

(1) Chemical Engineering, (2)Civil Engineering, (3) Computer Science Engineering, (4) Electrical Engineering, (5) Electronics and Communication Engineering, (6) Information Technology, (7) Mechanical Engineering and (8) Metallurgical and Materials Engineering branches

Science & Allied Departments are : Chemistry, Mathematics, Physics and Social Sciences.

The Centres are: Computer Services Centre, Central Research Facilities Centre, Innovation, Incubation & Entrepreneurship Development Centre, Maintenance Engineering Centre, Water Resources and Management Centre

**4.1 DEPARTMENTS**

**4.1.1 DEPARTMENT OF CIVIL ENGINEERING**

**Head: Dr. Shagoofta Rasool Shah**

**Introduction**

The department of Civil Engineering is one of the earliest departments at the commencement of the Institute in 1960. Over the years, the department has progressed both in infrastructure facilities and faculty. The department has highly qualified and experienced faculty, supported by experienced technical staff and well equipped laboratories attached to different divisions. The department offers teaching at the undergraduate and post-graduate levels to empower students to meet the technological needs and socio-economic challenges of the 21st century. The department also offers Ph.D. programs.

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Staff:** | | | |
| **Head** | **Dr. Shagoofta Rasool Shah** | | |
| Faculties: | | | |
| Professor | Associate Professor | Assistant Professor/ Teachers Trainee | Lecturer on Contract during the period |
| 09 | 08 | Asstt. Professors = 03 Teachers Trainee = 01 | 21 |

I. **Papers published by the staff (National/Internal) during the period of ( 01.04.2017 to 31.03.2018):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the staff Member** | **Title of the paper** | **Conference/Journal etc, where published** | **Date of Publication** |
| 1 | Yasir Altaf, Ahanger Manzoor Ahmad and Fahimuddin Mohd | MLR Based Statistical Downscaling of Temperature and Precipitation in Lidder Basin Region of India; | Environment Pollution and Climate Change 1:109 | 2017 |
| 2 | Sarvat Gull, Ahangar M.A. and Ayaz Mohmood Dar | Prediction of Stream Flow and Sediment Yield of Lolab Watershed Using SWAT Model | Hydrology Current Research, Vol.8, Issue 1, No. 265. | 2017 |
| 3 | Yasir Altaf, Ahanger Manzoor Ahmad and Fahimuddin Mohd | Modeling Snowmelt Runoff in Lidder River Basin using coupled Model | International conference on Status and future of Large Rivers organized by University of Vienna and NIH Roorkee and held at India habitat centre –New Delhi. | 2017 |
| 4 | Yasir Altaf, Manzoor A. Ahanger & Mohammad Fahimuddin | Hydrological response to climate change in a high altitude catchment | Int. J. Water, Vol. 12(2), pp: 170-193. | 2018 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **5**  (i) | Dr. B. A. Mir,  Professor | On Integrated Testing and Performance Assessment of Dredged Solid Waste from Dal Lake for Sustainable  Environment | American Journal of Civil and Environmental Engineering, USA, [http://www.aascit.org/journal/ajcee.](http://www.aascit.org/journal/ajcee) | pp. 1-72, Vol. 2, No.1,  Aug. 2017 |
| **(ii)** | Studies on the Mechanical Behavior of Bottom Ash for a Sustainable Environment (**Best**  **paper Award**) | International Journal of Civil and Environmental Engineering- scholar.waset.org/1307-  6892/10007302 | pp. 857-863, Vol:11,  No:7, July 2017 International Science Index |
| (iii) | Smart Materials and Their Applications in Civil Engineering: An Overview. | International Journal of Civil Engineering and Construction Science, USA | pp. 11-20, Vol. 4, No.  2, ISSN: 2472-9558,  May 2017 |
| (iv) | Mechanical Behavior of Cement Stabilized Dredged Soil. | Global Journal of Researches in Engineering (E), Print ISSN: 0975- 5861, © 2017 Global Journals Inc. (USA) | pp. 42-48, Vol. 17,  Issue 4, Version 1.0,  Dec. 2017 |
| (v) | Mechanical Behavior of Lime Stabilized Dredged Soil. | Proceedings of Indian Geotechnical Conference 2017 GeoNEst 14-16  December 2017 | Th09\_281, pp. 1-4,  IIT Guwahati, India, Dec. 2017 |
| (vi) | Evaluation of effect of Stiffness and Orientation of  Reinforcement on the Shear Strength of Sand. | Proceedings of Indian Geotechnical Conference 2017 GeoNEst 14-16  December 2017 | Th11\_465, pp. 1-4,  IIT Guwahati, India, 2017 |
| (vii) | Some Studies on the Performance Behavior of Stabilized Dredged Soil as  Highway Construction Material. | Proceedings of Indian Geotechnical Conference 2017 GeoNEst 14-16  December 2017 | Th13\_452, pp. 1-4,  IIT Guwahati, India, Dec. 2017 |
| (viii) | Role of Gliment as an additive  on the CBR Behavior of Kerewa Soils. | Proceedings of Indian Geotechnical Conference 2017 GeoNEst 14-16  December 2017 | Th09\_579, pp. 1-4,  IIT Guwahati, India, Dec. 2017 |
| **BOOK CHAPTERS** | | | | |
| **Sl.**  **No.** | **Name of the staff Member** | **Title of the Chapters** | **Book/Publisher etc, where published** | **Date of Publication** |
| 1 | Dr. B. A. Mir,  Professor | Some Studies on Mechanical Behavior of Cement Stabilized Dredged Soil from Flood Spill Channel of Jhelum River Srinagar. | Contemporary Issues in Geoenvironmental Engineering, Sustainable Civil Infrastructures, In  D.N. Singh and A. Galaa (eds.), © Springer International Publishing AG 2018 | pp. 386-406, Chp. No.  32, March 2018 |
| 2 | Some Model Studies on  Reinforced Dredged | Recent Advances in Environmental  Science from the Euro- | pp. 1697-1700, Chp  No. 94 ,© Springer |
|  |  | Soil for Sustainable Environment | Mediterranean and Surrounding | International |
|  | Regions, | Publishing AG 2018, |
|  | Advances in Science, Technology | March 2018 |
|  | & Innovation. In A. Kallel et al. |  |
|  | (eds.), |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 06 | Danish Ahmed | **Solid Waste Management of Kashmir Valley** | International Conference on Advancement in Engineering, Applied Science and Management, Mumbay  **IJESTR Vol-5, Issue -1 ISSN 2394-3386** | 07 Jan--2018 |
| **Waste free Srinagar City** | **IJESTR Vol-5, Issue -1 ISSN 2394-3386**  **Hyderabad** | Jan--2018 |
| **Modified Low Cost Solar Water Purifies** | International Journal of Advance in Science and Engineering, NIT Sgr  ISSN(o) 2319-8334, ISSN 2319-8346  **Vol-6 Dec 2017, RISTE-2017**  **BEST PAPER AWARD** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 07 | Aijaz Ahmad Masoodi | Serviceability Limits in  asbestos fiber RCC  beams | International journal  of Engineering Technology  Science and Research | Vol. 05,  Issue o2  February 2018 |
| Bacteria impregnated  concrete – Effects on  strength parameters | International journal  of Engineering Technology  Science and Research | Vol. 05,  Issue o2  February 2018 |
| Behaviour of Fibre Reinforced Concrete Beams in Pure Torsion, Combined Bending and Torsion | Online International Interdisplinary Research Journal (Bi-Monthly) | Vol. 07 June- 2017,Special Issue 02,ISSN2249-9598 |

II. **Sponsored Projects :**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Title of the Project** | **Investigator (s)** | **Sponsoring Organization** | **Amount (in Rs.)** | **Starting Date** |
| 01. | Briquetting of Dal Lake Weeds | Danish Ahmed  Mushtaq Ahmed(Chemical Deptt) | SAP | 23.90 Lacs | 2018 |

III. **Programme attended by the staff (Conference/Courses/Trainings):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the staff Member** | **Name of the programme attended** | **Institute where attended** | **Date** |
| 01. | Dr. A. Q. Dar | Data driven runoff modeling using different sets of predictors A case Study” | LD College of Engineering Ahmadabad, Gujrat | 21-24 December, 2017 |
| 02. | Dr. B.A. Mir | Ist Euro Mediterranean Conference for Environmental Integration (EMCE) and to present paper at Tunisia | Tunisia | 22-25 November, 2017 |
| 03. | Er. F.A. Mir | Geotechnical Modeling using GeoStudio “ | I.I.T.Delhi | 18-20 December, 2017 |
| 04. | Dr. A. Q. Dar | Gain course on Managing Floods and Droughts in a changing climate | Thiruvanthapuram Kerala | 23-24 January, 2018 |
| 05. | Dr. M .A. Lone | Managing Floods and Droughts in a changing climate | Jamia Millia Islamia New Delhi | 15-20 January, 2019 |
| 06. | Indian Geotechnical Conference (IGC) 2017 and present his paper | I.I.T. Guwahati Assam | 14-16 December, 2017 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | Holiday Inn London – |  |
|  |  | 19th International Conference on Civil, | Wembley, Empire Way, |  |
| 07 | Dr. B. A. Mir,  Professor | Environmental and Geological Engineering London, United Kingdom | Wembley,  Middlesex, HA9 8DS, London | July 25 - 26, 2017 |
| 08 |  | **1ST** Euro-Mediterranean Conference for Environmental Integration, Sousse,Tunisia, | University of Sfax, Tunisia | November 22-25  2017 |
| 09 | | Aijaz Ahmad Masoodi | Bacteria impregnated  concrete – Effects on  strength parameters | 2nd International  conference on New  Frontiers of Engineering,  Science, Management  & Humanities | Mahratta  Chamber of  Commerce and  Industries,  Pune  February 2018 |
| 10 | |  | Servicability Limits in  asbestos fibre RCC  beams | 2nd International  conference on New  Frontiers of Engineering,  Science, Management  & Humanities | Mahratta  Chamber of  Commerce and  Industries,  Pune  February 2018 |

IV. **Outgoing Doctoral Programme:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Topic** | **Investigator** | **Supervisor(s)** | **Degree Awarded** |
| 01. | Integrated Climate and Hydrological Modeling of a High Altitude Western Himalayan Catchment | Mr. Yasir Altaf | **Prof. M. A. Ahanger** | **Ph. D** |
| 02. | Effect of Obstacle type and Bed Material Gradation on Local Scour Phenomenon | Ms Bint ul Huda | **Prof. M. A. Lone** | **Ph. D** |
| 03. | Protective Filter Design Criteria based on particle shape and base gradation  Parameters | Nasir Ahmad Rather | **Prof. M. A. Lone** | **Ph. D** |

V. **Testing & Consultancy services rendered during 2017-18:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Title of the Project** | **Consultancy rendered to (name of the agency)** | **Amount Earned** |
| 01. | Design of Bridges, Flyover, Retaining walls, Lab testing etc | Simplex, R&B, Kashmir, CUK etc carried out by Structural Section of the Department. | **Rs. 32,50,000/=** |
| 02. | Collection and Analysis of Bed & Bank Soil samples of River Jhelum , Testing of two Bore Hole at Achan Wast Dump site Sgr, Const of Indoor Sports facility centre at NIT, Sgr. , Soil Testing etc | General Manager WAPCOS ltd, Central Public Works Deptt. Office and other agencies carried out by Geotechnical Engineering Section of the Department. | **Rs. 8,52.500/=** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Non Destructive Tests Conducted at BSF Campus Baramulla | NBCC Limted | 4.5 Laacs |

**VI. Purchase Made:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the equipment /item** | **Date of purchase** | **Quantity** | **Annual Purchase** |
| 01. | Loading Jack 200 tons | 31/ 08/2017 | **One No** | **Rs. 3,45,500/=** |
| 02. | Equipment for Water Testing like pH meter, BOD incubators, glassware, Etc | 2017-2018 | Remaining purchase under process | Environmental and sustainability studies centre  **ESSC** |

**List of Laboratories:**

|  |  |  |  |
| --- | --- | --- | --- |
| 01. | Structural Engineering Laboratory | 05.. | Surveying Laboratory |
| 02. | Concrete Engineering Laboratory | 06. | Engineering Geology Laboratory |
| 03. | Geotechnical Engineering Lab. | 07. | Transportation Engineering Laboratory |
| 04. | PHE Laboratory | 08. | Fluid Mechanics Laboratory |

**4.1.2 DEPARTMENT OF MECHANICAL ENGINEERING**

**Head: Prof. Sheikh Nazir Ahmad**

**Introduction**

Established in 1963, the Department of Mechanical engineering has one B. Tech and two M. Tech programmes.  The curriculum includes a diverse range of the subjects. The department has 12 labs to cater to the needs of the students. The real strength of the department lies in its highly qualified and experienced faculty. Most of the outgoing students are recruited by reputed organizations during campus placement every year.

**Faculty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Academic Staff:*** | | | | |
| ***Head*** | | ***Prof.* Sheikh Nazir Ahmad** | | |
| ***Faculties:*** | | | | |
| ***Professor*** | ***Associate Professor*** | | ***Assistant Professor*** | ***Lecturer (on contract) during the period*** |
| *Babar Ahmad* | *Sheikh Shahid Saleem* | | *Mohammad Mursaleen* | *Narnder Panwar* |
| *Mohammad Farooq Wani* | *Saad parvez* | |  | *Kaleem Ahmad* |
| *G.A. Harmain* | *Mohammad Hanief* | |  | *Himanshu Gupta* |
| *Sheikh Nazir Ahmad* | *M. S.Charoo* | |  | *Sumit Kumar* |
| *Adnan Qayoum* |  | |  | *Shuhaib Mushtaq* |

*I.* ***Papers Published by the Staff (National / International) during the period of 01.04.2017 to 31.03.2018:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***S.No.*** | | | ***Name of the Staff members*** | ***Title of the papers*** | | ***Conference/Journal etc, where published*** | ***Date of publishment*** |
| ***01*** | | | ***Prof. M. F. Wani*** | 1. *“Effect of load on the retention of tribofilms at the contact interface under dry sliding conditions at 500 0C* | | *Accepted for Publication in Journal of Material Science & Engineering Technology, 2018.* | *2018* |
| 1. *Tribological performance evacuation of PTFE under dry sliding and aqueous environment using TA and GRA effect of material, test environment and load.* 2. *Nano Indentation, Nano scratch and nano layer behaviour of metal-MoS2 coatings on aluminum alloy4047 deposited by PLD technique* | | *J. of Polymer Composites*  *Surface and*  *Coatings Technology* | *2018* |
|  | |  | | 1. *Wear mechanism and optimization of tool wear and surface roughness in hard turning AISID2 steel using AL2O3/TiC mixed ceramic tools* 2. *High-Temperature Friction and Wear Studies of Fe-Cu-Sn Alloy Containing Graphite as Solid Lubricant under Dry Sliding Conditions* 3. *Tribological characterization of N 80A and 21-4N valve materials against GGG-40 seat material under dry sliding conditions at temperatures to 500 0C* 4. *Wear modeling revisited using electrical analogy* 5. *Tribological Characterization of Hypereutectic Al-25Si Alloy under Dry and Lubricated Sliding Conditions* 6. *Tribological Characterization of Graphene Oxide as Lubricant Additive on Hypereutectic Al-25Si/Steel Tribopair* 7. *Fretting Wear Characterization of AZ91 and AE42 Magnesium Alloys Under Dry Sliding Conditions* 8. *Mechanical and Tribological properties of spark plasma sintered SiC/TiB2 and SiC/TiB2/TaC composites: Effects of sintering temperatures (2000°C & 2100°C)* | *J of Engineering Manufacture*  *Material Research Express*  *J. of Tribology*  *J. of Tribology*  *J. of Tribology*  *Tribology Transaction*  *J.of Tribology*    *Tribology Transaction* | *2017*  *2017*  *2017*    *2017*  *2017*  *2017*  *2017*  *2017* | |
|  | |  | | 1. *High Temperature Friction and Wear Studies of Nimonic 80A and Nimonic 90 against Nimonic 75 under Dry Sliding Conditions* 2. *Self lubricating tribological characterization of lead free Fe-Cu based bearing material* 3. *Effect of load on the tribological properties of hypereutectic Al–Si alloy under boundary lubrication conditions* 4. *Friction and Wear Characterization of Hypereutectic Al-Si alloy under boundary lubrication conditions.* 5. *Friction and Wear Characterization of Hypereutectic Al-Si Alloy/steel Tribopair under Dry and Lubricated Conditions* 6. *Synthesis and Tribological Properties of Graphene: A Review* 7. *Performance evaluation of PCBN, coated carbide and mixed ceramic inserts in finish-turning of AISI D2 steel* 8. *Tribological Properties of MoS2 Particles as Lubricant Additive on EN31 Alloy Steel and AISI 52100 Steel Ball* 9. *Modeling and analysis of tool wear and surface roughness in hard turning of AISI D2 steel using response surface methodology* 10. *Role of Green Tribology in Sustainability of Mechanical Systems: A State of the Art Survey* 11. *The study of Microhardness of powder metallurgy fabricated Fe\_cu alloy using Vickers indenter* | *J. of Tribology*  *J. of Tribology*  *J. of Tribology*  *Mater. Resources Express*  *J. of Tribology*  *J. of Tribology*  *J. of Tribology*  *Materils Today proceedings*  *International Journal of Industrial Engineering Computations*  *Advanced Material proceedings.* | *2017*  *2017*  *2017*  *2017*  *2017*  *2017*  *2017*  *2017*  *2017*  *2017*  *2017* | |
| *2* | | [*G.A.Harmain*](https://www.sciencedirect.com/science/article/pii/S0017931017333513#!)*,*  [*Ankush Raina*](https://www.sciencedirect.com/science/article/pii/S0020740317315333#!)*,*  [*Mir Irfan Ul Haq*](https://www.sciencedirect.com/science/article/pii/S0020740317315333#!) | *Numerical investigation of flow around a 3D bluff body using deflector plate* | | [International Journal of Mechanical Sciences](https://www.sciencedirect.com/science/journal/00207403) [*Volumes 131–132*](https://www.sciencedirect.com/science/journal/00207403/131/supp/C)*,  , Pages 701-711* ISSN NO: 0020-7403 | *Oct.2017* |
|  | | [*G.A.Harmain*](https://www.sciencedirect.com/science/article/pii/S0017931017333513#!)*,*  [*Azher Jameel*](https://www.tandfonline.com/author/Jameel%2C+Azher) | *A coupled FE-IGA technique for modeling fatigue crack growth in engineering materials* | | Taylor & Francis,Mechanics of Advanced Materials and Structures,ISSN NO: 1537-6494, | *14 Mar 2018* |
|  | | [*G.A.Harmain*](https://www.sciencedirect.com/science/article/pii/S0017931017333513#!)*,*  [*Azher Jameel*](https://www.tandfonline.com/author/Jameel%2C+Azher) | | *Fatigue crack growth analysis of cracked specimens by the coupled finite element-element free Galerkin method* | Taylor & Francis,Mechanics of Advanced Materials and Structures, VOL. 0, NO. 0,1-14 *ISSN NO: 1537-6494* | *2018* | |
|  | | [*G.A.Harmain*](https://www.sciencedirect.com/science/article/pii/S0017931017333513#!)*,*  [*Showkat A. Kanth*](https://www.sciencedirect.com/science/article/pii/S2214785318313506#!) *,* [*Azher Jameel*](https://www.sciencedirect.com/science/article/pii/S2214785318313506#!) | | *Modeling of Nonlinear Crack Growth in Steel and Aluminum Alloys by the Element Free Galerkin Method* | *Materialstoday: Proceedings*  [*Volume 5, Issue 9, Part 3*](https://www.sciencedirect.com/science/journal/22147853/5/9/part/P3)*, , Pages 18805-18814*  *ISSN NO: 2214-7853* | *2018* | |
|  | | [*G.A.Harmain*](https://www.sciencedirect.com/science/article/pii/S0017931017333513#!)*,*  [*Aazim Shafi Lone*](https://www.sciencedirect.com/science/article/pii/S2214785318313440#!) *,* [*Azher Jameel*](https://www.sciencedirect.com/science/article/pii/S2214785318313440#!) | | *A coupled finite element-element free Galerkin approach for modeling frictional contact in engineering components* | *Materialstoday: Proceedings*  [*Volume 5, Issue 9, Part 3*](https://www.sciencedirect.com/science/journal/22147853/5/9/part/P3)*, , Pages 18745-18754*  *ISSN NO: 2214-7853* | *2018* | |
|  | | [*G.A.Harmain*](https://www.sciencedirect.com/science/article/pii/S0017931017333513#!)*,*  [*Azher Jameel*](https://www.tandfonline.com/author/Jameel%2C+Azher) | | *Extended iso-geometric analysis for modeling three-dimensional cracks* | Taylor & Francis, *Mechanics of Advanced Materials and Structures, 2018, VOL. 0, NO. 0,1-9*  *ISSN NO: 1537-6494* | *2018* | |
|  | | [*G.A.Harmain*](https://www.sciencedirect.com/science/article/pii/S0017931017333513#!)*,*  *J.H.Masoodi* | | *Sediment erosion of Francis turbine runner in the Himalayan region of India* | *Hydropower and Dams, Issue One, ISSN No: 13522523* | *2017* | |
|  | | *G. A. Harmain, Showkat Ahmad Kanth Aazim Shafi Lone ,*  *Azher Jameel* | | *Level Set Methodology for Representing Different Discontinuities in Engineering Materials* | *Proceedings of 62nd Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM),* | *December, 15-18, 2017* | |
|  | | *G. A. Harmain, Aazim Shafi Lone ,*  *Showkat Ahmad Kanth ,*  *Azher Jameel* | | *A state of Art Review on the Level Set Method for Modelling Discontinuities in Engineering materials* | *Proceedings of 62nd Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM),* | *December, 15-18, 2017* | |
|  | | *G. A. Harmain, Aditya Kumar Singh,*  *Azher Jameel* | | *Modeling of Large Elasto-Plastic Deformation in Bi-material Components by FEM* | *Proceedings of the 7th International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM) ,* | *December 28-30, 2017* | |
|  | | *G. A. Harmain, Junaid Hassan Masoodi,*  *Mohammad Zehab Din,*  *Ishfaq Makayei* | | *A CFD approach for Assessment of sediment Erosion on Dulhasti Power Station Runner* | *13th JK Science Congress,* | *2018* | |
|  | | *G. A. Harmain, Farooq A Najar* | | *Life Cycle Assessment for Hydroelectric Power Plant Thrust Bearing* | *13th JK Science Congress,* | *2018* | |
|  | | *G. A. Harmain, Showkat Ahmad Kanth , Aazim Shafi Lone ,*  *Azher Jameel* | | *Level Set Methodology for Representing Different Discontinuities in Engineering Materials* | *Proceedings of 62nd Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM),* | *December, 15-18, 2017* | |
|  | | *G. A. Harmain,*  *Azher Jameel,*  *Farooq A. Najar,*  *Junaid H. Masoodi* | | *Large Elasto-Plastic Deformations in Bi-Material Components by Coupled FE-EFGM* | [*IOP Conference Series: Materials Science and Engineering*](http://iopscience.iop.org/journal/1757-899X) *225 012295* | *2017* | |
| ***3*** | | *Sheikh Shahid Saleem*  *and M. F. Wani* | | *Tribological Characterization of N 80A and 21-4N Valve Materials Against GGG-40 Seat Material Under Dry Sliding Conditions at Temperatures Up To 500 °C* | *ASME Journal of Tribology.139(6) 061605-061605-20. 2017*  ***JOURNAL*** | *Nov 20171* | |
|  | | *Sheikh Shahid Saleem*  *and M. F. Wani* | | *Effect of load on tribofilms at the contact interface under dry sliding conditions at 500 0C* | *Material wissenschaft und Werkstofftechnik (Materials Science and Engineering Technology.*  *WILEY-V C H VERLAG GMBH)*  *49(2), 169-184, 2018*  ***JOURNAL*** | *13 Feb 2018* | |
| ***4*** | ***Dr. M.S. Charoo***  ***(Associate Professor)*** | | | *Pranav Dev Srivyas,* ***M.S. Charoo****, “Aluminum metal matrix composites – a review of reinforcement; mechanical and tribological behavior”* | *6th World Conference on Applied Science, Engineering and Technology (WCASET-18)* | *2nd & 3rd January*  *2018, GOA, INDIA.* | |
|  |  | | | *Pranav Dev Srivyas,* ***M.S. Charoo****, “Role of reinforcements on the mechanical and tribological behavior of aluminum metal matrix composites – a review” Materials Today: Proceedings* [*Volume 5, Issue 9, Part 3*](https://www.sciencedirect.com/science/journal/22147853/5/9/part/P3)*, 2018, Pages 20041-20053, doi:* [*10.1016/j.matpr.2018.06.371*](https://doi.org/10.1016/j.matpr.2018.06.371) | ***materials today***  ***Proceedings(Elsevier)*** | *March 2018* | |
|  |  | | | *Pranav Dev Srivyas,* ***M.S. Charoo****, “Role of fabrication route on the mechanical and tribological behavior of aluminum metal matrix composites – a review” Materials Today: Proceedings* [*Volume 5, Issue 9, Part 3*](https://www.sciencedirect.com/science/journal/22147853/5/9/part/P3)*, 2018, Pages 20054-20069, doi:* [*10.1016/j.matpr.2018.06.372*](https://doi.org/10.1016/j.matpr.2018.06.372) | ***materialstoday***  ***Proceedings(Elsevier)*** | *March 2018* | |
|  |  | | | *Wani Khalid Shafi,* ***M.S.Charoo****, "Nano Lubrication Systems: An Overview." Materials Today: Proceedings* [*Volume 5, Issue 9, Part 3*](https://www.sciencedirect.com/science/journal/22147853/5/9/part/P3)*, 2018, Pages 20621-20630., doi: 10.1016/j.matpr.2018.06.443* | ***materialstoday***  ***Proceedings(Elsevier)*** | *March 2018* | |
| ***5*** | ***Mohammad Mursaleen*** | | | 1. *Modelling and analysis of deboning in a smart beam in sensing mode using variational formulation*   *2.Enhancing the Wear Resistance*  *of WC–Co Cutting Inserts using*  *Synthetic Diamond Coatings*  *3.Development of a Dual Layered Diamond Coated-WC–Co Cutting Tool for Enhancing Tool Life in the Dry Machining of Mild-steel Alloy*    *4. Mechanical and Tribological*  *Behavior of Microcrystalline*  *CVD- Diamond Coatings*    *5.CVD Diamond* | ***Journal of King Saud University – Science***  [***h***](https://doi.org/10.1016/j.jksus.2017.09.013)  ***Industrial lubrication and tribology journal-emerald publishing***  ***Journal of Engineering Manufacture***  ***Journal of Bio- and Tribo-Corrosion***  ***Transactions of the Indian institute of metals*** | ***https://doi.org/10.1016/j.jksus.2017.09.013***  ***Vol. 70 Issue: 7, pp.1224-1233, https://***  ***doi.org/10.1108/ILT-04-2017-0089***  ***sagepub.co.uk/journalspermissions.navDOI.10.1177/0954405418780179***  [***https://doi.org/10.1007/s40735-018-0144-1***](https://doi.org/10.1007/s40735-018-0144-1)  ***DOI 10.1007/s12666-018-1454-1*** | |

**II. Programmes attended:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***S.No*** | | ***Name of the Staff members*** | ***Name of the programme attended*** | ***Institute where attended*** | ***Date*** |
| ***1*** | | ***Prof. M.F.Wani*** | 1. *attended Seminar at National School Of Engineering Sfax Tunisa* 2. *Two Days workshop on LAN* 3. *Earth Sciences and Engineering* 4. *Sensitization Workshop on Induction programme and Modalities* | *National School Of Engineering Sfax Tunisa*  *NIT Srinagar*  *National School Of*  *Engineering Sfax Tunisa*  *New Delhi* | *29th December, 2017*    *2018*  *2017* |
| ***2*** | | ***Dr. G. A. Harmain*** | *Workshop on Outcome Based Education (OBE) for Engineering Programs* | *AICTE Auditorium Nelson Mandela Marg Road Vasnt Kunj, New Delhi* | ***8th to 9th Feb, 2018*** |
| ***3*** | *Sheikh Shahid Saleem, Muhammad Junaid Mir, M. F. Wani, Shuhaib Mushtaq* | | *5th International Conference and Exhibition on Sustainable Energy and Advanced Material (ICESEAM2017), 16-19 October 2017,Melaka, Malaysia.* | *Melaka, Malaysia.* | *16-19 October 2017* |
| ***4*** | *Shuhaib Mushtaq, M. F. Wani, Sheikh Shahid Saleem, Muhammad Junaid Mir* | | *5th International Conference and Exhibition on Sustainable Energy and Advanced Material (ICESEAM2017), 16-19 October 2017, Melaka, Malaysia.* | *Melaka, Malaysia.* | *16-19 October 2017* |
| ***5*** | ***M.S.Charoo*** | | *“Management Capacity Enhancement Programme for Teaching Staff” Under TEQIP III.* | *Port Blair* | *26th Jan to 1st Feb 2018.* |
| ***6*** | ***Mohammad Mursaleen*** | | ***TEM & HRTEM Material characterization*** | ***IIT, Kanpur*** | ***18-22 Sept. 2017.*** |

***III. Programme Conducted (Conferences/Courses/ Trainings) by the Department:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S.No.*** | ***Name of the Programme*** | ***Date When Conducted*** | ***Name of the Coordinator(S)*** | ***Sponsoring Agency, if any*** |
| ***1*** | *Two Days workshop on “Outcome Based Accreditation”* | *17th to 18th March 2018* | *Prof .G A Harmain*  *Dr. M. S. Charoo*  *Dr. F. Q. Mir* | *TEQIP III* |
| ***2*** | *Outcome Based Education (OBE)* | *17th to 18th Feb, 2018* | *Dr.G. A. Harmain* | *TEQIP III* |

IV. ***Sponsored Projects***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***S.No.*** | ***Title of the Project*** | ***Investigator(s)*** | ***Sponsoring Organisation*** | ***Amount (in Rs)*** | ***Starting Year*** |
| ***1*** | *International R&D Project:* *India-Tunisia Joint S &T Research Cooperation DST*DST/INT/TUNISA/P-*14/17* | ***Prof. M.F.Wani,***  ***Dr.Shahid Saleem*** | ***DST*** | ***INR 21.6*** | ***2017*** |
| ***2*** | *NDT of Steel frame structure of Multi level car Parking, Lal chowk* |  | *JK ERA* | *Rs 4,00,000/-* | *NDT of Steel frame structure of Multi level car Parking, Lal chowk* |
| ***3*** | ***Development & Tribological Characterization of Self Lubricating Nano-Silicon Nitride and Nano-Silicon Ceramic Composites*** | ***Prof. M.F. Wani, Shahid Saleem, Rajat Gupta*** | ***DST*** | ***21,60,000/-*** | ***Oct 2017*** |

**V. *Ongoing Doctoral Programme :***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | ***Topic*** | | ***Investigator*** | ***Supervisor(s)*** | | | ***Degree awarded*** |
| ***1*** | *Nanomechanical and nanotribological properties of metal/MoS2 coating on AI-Si substrate by PLD* | | ***Sumera Banday*** | ***Prof. M.F Wani*** | | | ***Pursuing*** |
| ***2*** | *Tribological properties of filled PTFE based Composites under dry and aqueous envirnoments* | | ***Jebran Khan*** | ***Prof. M.F Wani*** | | | ***Pursuing*** |
| ***3*** | *Tribological studies of nano coated Cutting tools* | | ***Irshad Qadri*** | ***Prof. M.F Wani*** | | | ***Pursuing*** |
| ***4*** | *Tribological characterization of MAX phase materials and its composites* | | ***Jagtar Singh*** | ***Prof. M.F Wani*** | | | ***Pursuing*** |
| ***5*** | *Engine Tribology* | | ***Gurteej Singh*** | ***Prof. M.F Wani*** | | | ***Pursuing*** |
| ***6*** | *Tribology of Composite Materials* | | ***Sajad Lone*** | ***Prof. M.F Wani*** | | | ***Pursuing*** |
| ***7*** | *Nanolubrication* | | ***Quratalan*** | ***Prof. M.F Wani*** | | | ***Pursuing*** |
| ***8*** | *Effect of Buoyancy and height ratio on the flow and heat transfer around a bluff body - An assumption on a trapezoidal geometry* | | *Dr. Parvez Malik* | *Dr.G.A. Harmain* | | | ***Yes*** |
| ***9*** | *Supplier Involvement in Product Development Using Fuzzy Adaptive Resonance Theory* | | *Dr. Saad Parvez* | *Dr.G.A. Harmain* | | | ***Yes*** |
| ***10*** | *Study of tribology of ceramic cutting tools during machining of Nickel alloy 718* | | *Mr. Irshad Qadri* | *Dr.G.A. Harmain* | | | ***Pursuing*** |
| ***11*** | *A Study on Sediment Erosion of Francis Turbine Runner Blade* | | *Junaid Massodi* | *Dr.G.A. Harmain* | | | ***Submitted*** |
| ***12*** | *An Assessment of Sediment Erosion of Pelton Turbine Buckets In Himalayan Belt of Jammu and Kashmir Pursuing* | | *Mr. Zehab Ud Din* | *Dr. G. A. Harmain* | | | ***Pursuing*** |
| ***13*** | *Sediment based Tri-biological studies on some hydro runner materials used in Jammu & Kashmir State* | | *Mr. Ishfaq Makkai* | *Dr. G. A. Harmain* | | | ***Pursuing*** |
| ***14*** | *Computational mechanics in fracture & fatigue of structures* | | *Mr. Azim Lone* | *Dr. G. A. Harmain* | | | ***Pursuing*** |
| ***16*** | *Single overload fatigue at high temperature* | | *Mr. Ashutosh* | *Dr. G. A. Harmain* | | | ***Pursuing*** |
| ***17*** | *Computational mechanics in fracture & fatigue of structures* | | *Mr. Showkat* | *Dr. G. A. Harmain* | | | ***Pursuing*** |
| ***18*** | *An analysis of fatigue Crack Propagation in 304 LN Stainless Steel* | | *Mr. Chandra kant* | *Dr. G. A. Harmain* | | | ***Pursuing*** |
| *19* | *Emissions and Performance Improvement of a 3 Cylinder SI Engine With Alternative Fuels and Water Based Micro-Emulsion Fuels* | *Ufaith Qadri* | | | *Prof M Marouf Wani* | *Pursuing* | |
| *20* | *Emissions and Performance Improvement of a Single Cylinder VCR CI Engine With HCCI Combustion* | *Mushtaq Ahmad Rather* | | | *Prof M Marouf Wani* | ***Pursuing*** | |
| *21* | *Tribology Area* | *Gurtej Singh* | | | *Prof M Farooq Wani*  *Prof M Marouf Wani* | ***Pursuing*** | |
| *22* | *Emissions and Performance Improvement of CI Engines Beyond The Use of Renewable Bio-fuels* | *Hussain Vali* | | | *Prof M Marouf Wani* | ***Pursuing*** | |
| *23* | *Emissions and Performance Improvements of CI Engines Beyond The Use of Renewable Bio-fuels* | *Naresh Kumar Reddy* | | | *Prof M Marouf Wani* | ***Pursuing*** | |

***VI. Purchase Made:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S. No.*** | ***Name of the equipment/Item*** | ***Date of purchase*** | ***Quantity*** | ***Annual purchase*** |
| *01* | *Structural Mechanic Module* | *5.4.2017* | *2 Nos.* | *70800.00* |
| *02* | *Non Linear structural Module* | *5.4.2017* | *2 Nos.* | *63600.00* |
| *03* | *Material library single cup looked* | *5.4.2017* | *2 Nos.* | *39600.00* |
| *04* | *Heat Transfer Module* | *5.4.2017* | *2 Nos.* | *70000.00* |
| *05* | *CFD Module Single user* | *5.4.2017* | *2 Nos.* | *138000.00* |
| *06* | *Consol math Physics single user* | *5.4. 2017* | *2 Nos.* | *138000.00* |
| *07* | *Avial Flow fen Test Rig* | *9.6.2017* | *1 Nos.* | *629800.00* |
| *08* | *Flash Forge creator 3 D printer* | *19.5.2017* | *1 No.* | *98810.00* |
| *09* | *Online UPS 180 VOC* | *27.6.2017* | *4 Nos.* | *239144.00* |
| *10* | *65 oh. SMF Battery* | *27.6.2017* | *1 No.* | *23144.00* |
| *11* | *Stabilizer* | *27.06.2017* | *1 No.* | *107144.00* |
| *12* | *Electro Mechanical Equipment* | *06.07.2017* | *1 No.* | *580000.00* |
| *13* | *Tank* | *6.7.2017* | *1 No* | *160000.00* |
| *14* | *Self Pinning Pumping unit* | *6.7.2017* | *1 No.* | *160000.00* |
| *15* | *Agitator Assambly* | *6.7.2017* | *1 No.* | *90000.00* |
| *16* | *Main Control Pannel* | *6.7.2017* | *1 No.* | *60000.00* |
| *17* | *Minimum Quantity lubrication* | *13.10.2017* | *1 No.* | *178250.00* |
| *18* | *Portable surface Roughness Tester* | *25.10.2017* | *1 No.* | *188220.00* |
| *19* | *Digital Portable Hardness Tester* | *25.10.2017* | *1 No.* | *77553.00* |
| *20* | *Digital Oscill 2 y60 Mnz* | *13.10.2017* | *1 No.* | *98550.00* |
| *21* | *Pressure Transmitter* | *8.1.2018* | *1 No.* | *29358.00* |
| *22* | *RPM Meter with disply* | *8.1.2018* | *1 No.* | *124630.00* |
| *23* | *Manetic Sensor Transmitter* | *8.1.2018* | *1 No* | *184370.00* |
| *24* | *Vibration Senosor Transmitter* | *8.1.2018* | *1 No.* | *155530.00* |
| *25* | *PLC paner (PLC with 16D1 + 8DO +BA1+4AD)* | *8.1.2018* | *1 No.* | *463500.00* |
| *26* | *Experimental Test Rig performance Test three sylinder four stroke Petrol Engine Test* | *8.1.2018* | *1 set* | *82000.00* |
| *27* | *Experimental Test Rig with Mechanical C.I loading arrangements single cylinder four stroke Engine* | *8.1.2018* | *1 set* | *71000.00* |
| *28* | *Micro hardness Tester* | *8.1.2018* | *1 No.* | *624644.00* |

***VI. LIST OF LABORATORIES***

|  |  |
| --- | --- |
| ***S.No.*** | ***Name of laboratory*** |
| *01* | *Dynamic lab.* |
| *02* | *Production lab.* |
| *03* | *CNC lab.* |
| *04* | *CAD lab* |
| *05* | *Advanced Material Testing lab.* |
| *06* | *I.C. Engine* |
| *07* | *Heat transfer* |
| *08* | *Steam lab* |
| *09* | *Industrial lab* |
| *10* | *Material Testing lab* |
| *11* | *Fluid Mech. Lab* |
| *12* | *Turbine Erosion Testing* |
| *13* | *Mechatronics lab* |
| *14* | *Tribology lab* |
| *15* | *Advanced Computational lab.* |
| *16* | *Fuel cell lab.* |
| *17* | *Energy Research lab.* |
| *18* | *Turbulence Research lab.* |

4.1.3.**DEPARTMENT OF ELECTRICAL ENGINEERING**

**Head: Prof. Shameem Ahmad Lone**

**Introduction**

The Department of Electrical Engineering is now 53 years old. For many years, the Department offered courses in both Electrical Engineering and Electronics & Communications Engineering.In 1984, the Department was bifurcated into two Departments viz Electrical Engineering and Electronics & Communications Engineering. The history since then has been one of continuous expansion and modernization. The Department has contributed and is contributing in several ways to the growth of Electrical Engineering, technology and industry in the Country.

**Faculty**

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Staff:** | | | |
| **Head:** | **Prof. Shameem Ahmad Lone** | | |
| Faculties: |  | | |
| Professors | Associate Professors | Assistant Professors | Lecturer (on contract) during the period |
| 03 | 02 | 02 | 15 |
| Dr. M. D. Mufti | Dr. A. H. Bhat | Dr. M. A. Bazaz | Mr. Amit Kumar |
| Dr. Aijaz Ahmad | Dr. S. J. Iqbal | Ms. Tabish Nazir Mir (Teacher Trainee) | Mr. Masood Ibni Nazir |
| Dr. S. A. Lone |  |  | Mr. Zahid Farooq |
|  | Ms. Saima Ashraf |
| Ms. Bisma Hamid |
| Mr. Imtiyaz Alam |
| Mr. Keshav Dutt |
| Mr. Deep Agarwal |
| Mr. Chandan Kumar |
| Mr. Nasir Rehman |
| Mr. Rakesh Kumar |
| Mr. Gaurav Bhatt |
| Ms. Kiran Rana |
| Mr. Sheikh Safiullah |
| Mr. Aabid Hussain Sheikh |

I. **Papers published by the staff(national/international) during the period of 01- 04-2017 to31-03-2018:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No | Name of the staff members | Title of the papers | Conference/journal etc, where published | Date of publishment |
| 1. | Prof. Abdul Hamid Bhat | Fuzzy logic controlled dynamic voltage restorer for mitigation of various power quality problems | International Journal of Industrial Electronics and Drives | 2017 |
| 2. | Prof. Abdul Hamid Bhat | A Novel Control Approach for Improved Performance of a High-Power Factor Converter Under Supply and Load Perturbations | Journal of Electrical Engineering (JEE) | 2017 |
| 3. | Prof. Abdul Hamid Bhat | Performance Investigation of Nine-level Cascaded H-bridge Inverter Based STATCOM for Various Power System Applications | International Journal of Industrial Electronics & Drives | 2017 |
| 4. | Prof. Abdul Hamid Bhat | PLL-Less Adaline-Based Control of Self-Supported DVR for Grid Voltage Distortion and Imbalances | Journal of Electrical Engineering (SCOPUS-indexed) | 2018 |
| 5. | Prof. Abdul Hamid Bhat and Ms. Tabish Nazir Mir | Speed-Sensorless DTC of a Matrix Converter Fed Induction Motor using An Adaptive Flux Observer | IETE Journal of Research (Springer) | 2018 |
| 6. | Prof. Abdul Hamid Bhat | Review and Comparative Analysis of Dual Active Bridge Isolated DC to DC Converter with Different Control Techniques | Int. J. Industrial Electronics and Drives | 2018 |
| 7. | Prof. Abdul Hamid Bhat | Design and Performance Evaluation of Self-Supported Dynamic Voltage Restorer for Mitigating Various Power Quality Problems | Int. J. Power Electronics | 2018 |
| 8. | Prof. Abdul Hamid Bhat and Ms. Tabish Nazir Mir | Constant Switching Frequency DTC for Matrix Converter Fed Speed Sensorless Induction Motor Drive | Journal of Institution of Engineers, India (Springer) | 2018 |
| 9. | Prof. Abdul Hamid Bhat | A Current Source Inverter-Based Unified Power Quality Conditioner for Mitigation of Voltage and Current Harmonics | Int. J. Industrial Electronics and Drives | 2018 |
| 10. | Prof. Abdul Hamid Bhat | Capacitor Voltage Balancing in Neutral-Point Clamped Rectifier Using Modified Modulation Index Technique | International Journal of Computers and Electrical Engineering (Elsevier) | 2018 |
| 11. | Prof. Abdul Hamid Bhat | Power Quality Improvement in Hybrid Filter Using Fuzzy Logic Controller | Int. J. Industrial Electronics and Drives | 2018 |
| 12. | Prof. Abdul Hamid Bhat | Simultaneous Active and Reactive Power Compensation Using STATCOM with Supercapacitor Energy Storage System | International Journal of Industrial Electronics & Drives | 2018 |
| 13. | Prof. Abdul Hamid Bhat | Neural Network Based Three-Phase NPC Rectifier for DC Bus Capacitor Voltage Balancing Under Perturbed Mains Supply Conditions | International Journal of Power Electronics | 2018 |
| 14. | Prof. Abdul Hamid Bhat | Optimising the Performance of Three-Phase Neutral Point Clamped Rectifier Under Disturbed AC Mains | Int. J. Power Electronics | 2018 |
| 15. | Prof. Abdul Hamid Bhat | ANN Based SVPWM for Three-Phase Improved Power Quality Converter Under Disturbed AC Mains | IEEE International Conference on "Computer Application in Electrical Engineering-Recent Advances (CERA-4) | 2017 |
| 16. | Prof. Abdul Hamid Bhat | Comparative Analysis of Dual Active Bridge Isolated DC to DC Converter with Single Phase Shift and Extended Phase Shift Control Techniques | IEEE International Conference on "Computer Application in Electrical Engineering-Recent Advances (CERA-4) | 2017 |
| 17. | Prof. Abdul Hamid Bhat | Comparative Analysis of Dual Active Bridge Isolated DC to DC Converter with Double Phase Shift and Triple Phase Shift Control Techniques | IEEE International Conference on "Recent Developments in Control, Automation & Power Engineering (RDCAPE) | 2017 |
| 18. | Prof. Abdul Hamid Bhat | Comparative Analysis of Dual Active Bridge Isolated DC to DC Converter with Single-Phase Shift and Dual Phase Shift Control Techniques | IEEE International Conference on "Recent Developments in Control, Automation & Power Engineering (RDCAPE) | 2017 |
| 19. | Prof. Abdul Hamid Bhat | Comparative Analysis of Dual Active Bridge Isolated DC to DC Converter with Single Phase Shift and Dual Phase Shift Control Techniques | IEEE International Conference on "Recent Developments in Control, Automation & Power Engineering (RDCAPE) | 2017 |
| 20. | Prof. Abdul Hamid Bhat | Adaline-Based Control of Self Supported DVR for Mitigation of Various Source Side Power Quality Problems | International Conference on Recent Trends in Engineering, Technology, Agriculture, Applied Sciences, Humanities and Business Management for Sustainable Development (ETAHBS-2018) | 2018 |
| 21. | Prof. Abdul Hamid Bhat | Back Flow Power Analysis and Identification of Optimum Operating Zone of Single-Phase Shift and External Phase Shift Control Modes in Dual Active Bridge Converter | International Conference on Recent Trends in Engineering, Technology, Agriculture, Applied Sciences, Humanities and Business Management for Sustainable Development (ETAHBS-2018) | 2018 |
| 22. | Prof. Abdul Hamid Bhat | Power Quality Improvement using Three-Phase, Three-wire Self-supported DVR Based on SRF-Theory | International Conference on Recent Trends in Engineering, Technology, Agriculture, Applied Sciences, Humanities and Business Management for Sustainable Development (ETAHBS-2018) | 2018 |
| 23. | Prof. Abdul Hamid Bhat | Power Quality Improvement of Utility-Distribution System Using Self-Supported DSTATCOM Based on Unit Template Based Control Algorithm in PFC and ZVR Modes | International Conference on Recent Trends in Engineering, Technology, Agriculture, Applied Sciences, Humanities and Business Management for Sustainable Development (ETAHBS-2018) | 2018 |
| 24. | Prof. Abdul Hamid Bhat and Ms. Tabish Nazir Mir | Low Speed Sensorless Model Predictive Current Control of A 3-Phase Induction Motor from A Single-Phase Supply | IEEMA Engineer Infinite Conference (eTechNxT 2018) | 2018 |
| 25. | Prof. Abdul Hamid Bhat and Ms. Tabish Nazir Mir | New Modulation Methods for Single-Phase to Three-Phase Matrix Converters | IEEE power electronics, drives and energy systems conference, (PEDES 2018) | 2018 |
| 26. | Prof. M. D. Mufti | Adaptive predictive control of a small capacity unit for improved frequency control of a wind-diesel power system | IET Renewable power generation | 2017 |
| 27. | Prof. M. D. Mufti and Prof. S. A. Lone | Modelling and performance assessment of a standalone hybrid wind-diesel-superconducting magnetic energy storage system using four-quadrant operation of superconducting magnetic energy storage. | Wind Engineering, 42(5), 496–509. | 2017 |
| 28. | Prof. M. D. Mufti and Prof. S. A. Lone | MATLAB/Simulink-based modelling and performance assessment of wind–diesel energy storage system. | Wind Engineering, 42(3) | 2017 |
| 29. | Prof. M. D. Mufti | Enhanced load frequency control response with integration of supervisory controlled superconducting magnetic energy storage system in wind-penetrated two-area power system. | Wind Engineering, 41(5), 330–342. | 2017 |
| 30. | Prof. M. D. Mufti | Predictive Controlled SMES for frequency control of Wind-diesel Stand alone Power system | IEEE Conf on Computation, Communication and automation (ICCCA) 2017. | 2017 |
| 31. | Prof. M. D. Mufti and Prof. S. A. Lone | Matlab/Simulink Model for Stability Studies of a Multi Machine Power sytem incorporating static VAR Compensator and Power system Stabilizers | Int conf on Engineering Research and Applications May 17-18 2017, at Istanbul Turkey. | 2017 |
| 32. | Prof. M. D. Mufti and Prof. S. A. Lone | Modeling and simulation of an energy storage based multi-machine power system for transient stability study | 2017 IEEE Conference on Energy Conversion (CENCON), Kuala Lumpur, 2017, pp. 78-83. | 2017 |
| 33. | Prof. M. D. Mufti and Prof. S. A. Lone | Modelling of a Multi-machine system aided with Power system stabilizers and shunt compensator for transient stability enhancement | IEEE conf on energy Communication, Data analysis and Soft computing, Aug 1-2, 2017 in Tamil Nadu. | 2017 |
| 34. | Prof. M. D. Mufti | Fuzzy logic bases storage system for a standalone wind energy conversion system | IEEE Conf on Computation, Communication and automation (ICCCA) 2017. | 2017 |
| 35. | Prof. M. D. Mufti | Modeling and simulation of a superconducting magnetic energy storage based multi-machine power system for transient stability study | 2017 6th International Conference on Computer Applications In Electrical Engineering-Recent Advances (CERA), Roorkee, 2017, pp. 347-352. | 2017 |
| 36. | Prof. M. D. Mufti and Prof. S. A. Lone | Voltage and frequency control of a hybrid Wind-Diesel system using SVC and predictively controlled SMES | 2017 6th International Conference on Computer Applications In Electrical Engineering-Recent Advances (CERA), Roorkee, 2017, pp. 25-30. | 2017 |
| 37. | Prof. M. D. Mufti and Prof. S. A. Lone | Predictive controlled SMES for frequency control of hybrid wind-diesel standalone system | 2017 International Conference on Computing, Communication and Automation (ICCCA), Greater Noida, 2017, pp. 1395-1400. | 2017 |
| 38. | Prof. Aijaz Ahmad | Optimizing the Performance of Three-Phase Neutral-Point Clamped Rectifier Under Disturbed AC Mains | International Journal of Power Electronic, Vol. 9, issue 1, pp.99-121 | 2018 |
| 39. | Prof. Aijaz Ahmad | Neural Network Based Three-Phase NPC Rectifier for DC Bus Capacitor Voltage Balancing Under Perturbed Mains Supply Conditions | International Journal of Power Electronics. | 2018 |
| 40. | Prof. Aijaz Ahmad | Simultaneous Active and Reactive Power Compensation Using STATCOM with Supercapacitor Energy Storage System | IJIED International Journal of Industrial Electronics and Drives, 2017. | 2017 |
| 41. | Prof. Aijaz Ahmad | A novel control approach for improved performance of a high power factor converter under supply and load perturbations | International Journal of Electrical Engineering. Volume: 13, No. 3 , pp. 392 – 407. | 2017 |
| 42. | Prof. Aijaz Ahmad | - | I S E R 108th INTERNATIONAL CONFERENCEAt: Mecca, Saudi Arabia | 2018 |
| 43. | Prof. Aijaz Ahmad | Voltage and frequency control of a hybrid wind-diesel system using SVC and predictively controlled SMES | 2017 6th International Conference on Computer Applications in Electrical Engineering-Recent Advances (CERA) | 2017 |
| 44. | Prof. S. A. Lone | Modelling and Performance assessment of a standalone hybrid wind diesel superconducting magnetic energy storage system using four-quadrant operation of superconducting magnetic energy storage | Wind Eng. | 2017 |
| 45. | Prof. S. A. Lone | Adaptive predictive control of a small capacity SMES unit for improved frequency control of a wind-diesel power system | IET JOURNAL | 2017 |
| 46. | Prof. S. A. Lone | Mat lab/Simulink Model for Stability Studies of a Multi Machine Power system incorporating static VAR Compensator and Power system Stabilizers | International conf. on Engineering Research and Applications May 17-18 2017, at Istanbul Turkey. | 2017 |
| 47. | Prof. S. A. Lone | Modelling and Simulation of an energy storage based Multi Machine Power system for transient stability | IEEE conference on Energy Conversion 30-31 October 2017 in Kaulalampur Malaysia. | 2017 |
| 48. | Prof. S. A. Lone | Voltage and frequency control of a hybrid wind-diesel system using SVC and predictively controlled SMES | IEEE CERA conf. at IIT Roorkee India 5-7th Oct, 2017 | 2017 |
| 49. | Prof. S. A. Lone | Predictive Controlled SMES for frequency control of Wind-diesel Stand-alone Power system | IEEE Conf. on Computation, Communication and automation (ICCCA) 2017 | 2017 |
| 50. | Dr. Sheikh Javed Iqbal | Impact of large scale wind penetration on power system frequency stability | 2017 Second IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT), February 2017. | 2017 |
| 51. | Dr.Mohammad Abid Bazaz | Neural Predictive Observer for Sensorless Controlled Induction Motor Drive | Control & Intelligent Systems, vol. 45, no. 2, pp. 84-91, 2017, ISSN: 1480-1752 | 2017 |
| 52. | Dr.Mohammad Abid Bazaz | Simulation Acceleration of High-Fidelity Nonlinear Power Electronic Circuits Using Model Order Reduction | Third IFAC International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS 2018), pp. 289-294 | 2018 |
| 53. | Dr.Mohammad Abid Bazaz | Accelerated Simulation of a High-Fidelity DC-DC Buck-Boost Converter Using Model Order Reduction | 2018 IEEE Indian Control Conference (ICC), pp. 107-112 | 2018 |
| 54. | Dr.Mohammad Abid Bazaz | Short Term Load Forecasting Using Artificial Neural Network | IEEE International Conference on Image Information Processing | 2017 |
| 55. | Dr.Mohammad Abid Bazaz | Implementation of MPPT Technique For Solar PV System Using ANN | IEEE International Conference on Recent development in Control, Automation And Power Engineering (RDCAPE) | 2017 |
| 56. | Dr.Mohammad Abid Bazaz | Model Order Reduction in Power Electronics: Issues and Perspectives | International Conference on Computing, Communication and Automation (ICCCA 2017), pp. 1417-142 | 2017 |
| 57. | Dr.Mohammad Abid Bazaz | Fuzzy Tuned PID Controller for Power System Stability | International Conference on Computing, Communication and Automation (ICCCA 2017), pp. 1379-1384 | 2017 |

**II. Programme attended by the staff (conferences/courses/trainings):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| s.no | Name of the staff members | Name of the programme attended | Institute where attended | Date |
| 1. | Prof. Abdul Hamid Bhat | International Conference on Computer Applications in Electrical Engineering-Recent Advances (CERA-17) | IIT Roorkee | 05-07, OCT,2017 |
| 2. | Prof. Abdul Hamid Bhat | International Conference on Recent Trends in Engineering, Technology, Agriculture, Applied Sciences, Humanities and Business Management for Sustainable Development (ETAHBS-2018) | NIT Srinagar | 20-21, Oct, 2018 |
| 3. | Prof. Aijaz Ahmad | I S E R 108th International Conference on Electrical Engineering | Saudi Arabia, | Feb. 2018”. |
| 4. | Dr. Sheikh Javed Iqbal | 2017 Second IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT) | - | February 2017 |
| 5. | Dr.Mohammad Abid Bazaz | International Conference on Computing, Communication and Automation (ICCCA 2017) | - | May 5-6, 2017 |
| 6. | Dr.Mohammad Abid Bazaz | IEEE International Conference on Recent development in Control, Automation and Power Engineering (RDCAPE), | NCR, India | October 2017 |
| 7. | Ms. Tabish Nazir Mir | 2018 IEEMA Engineer Infinite Conference (eTechNxT) | Greater Noida, NCR of Delhi, India | 13-14 March 2018 |

III. **Programme conducted (conferences/courses/trainings) by the department:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.no** | **Name of the programme** | **Date when conducted** | **Name of the coordinator(s)** | **Sponsoring agency, if any** |
| 1. | Workshop on Scientific and Technical Documentation Using LaTeX | 21 – 22 April 2017 | Dr. Mohammad Abid Bazaz | NIT Srinagar |

IV. **Ongoing doctoral programme:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Topic** | **investigator** | **Supervisor(s)** | **Degree awarded** |
| 1. | Performance Investigation of A 3-Phase Improved Power Quality Converter for Supply Side Perturbations | Deepak Sharma | Prof. A.H. Bhat | Awarded,2017 |
| 2. | Adaptive Predictive Control of SMES For Power Quality Improvement of Stand-Alone Wind Diesel Power System | Mubashir Zargar | Prof. S.A. Lone | Awarded,2018 |
| 3. | Dynamic Voltage Restorer for Power Quality Improvement | Humeera Altaf | Prof. A.H.Bhat | Enrolled,2017 |
| 4. | Performance Investigation of DC Microgrid | Amit Kumar | Prof. A.H. Bhat | Enrolled, 2017 |
| 5. | Power System Control and Stability | Asima Syed | Prof. M.D. Mufti | Enrolled, 2017 |
| 6. | Power System Protection | Abdul Waheed Kumar | Prof. M.D. Mufti | Enrolled, 2017 |
| 7. | Congestion Management in Deregulated Power Systems | Gajala Madhu Mohan | Prof. Aijaz Ahmad | Enrolled, 2017 |
| 8. | Hybrid System with Energy Storage | Zahid Afzal Thokar | Prof. S.A. Lone | Enrolled, 2017 |
| 9. | Control of Electric Drives | Suhail Ahmad Suhail | Dr. M.A. Bazaz | Enrolled, 2017 |
| 10. | Study of Highly Penetrated Renewable Energy Sources on Distribution Systems | Masood Ibin Nazir | Prof. Aijaz Ahmad | Enrolled, 2017 |
| 11. | Model Order Reduction for Controller Design | Danish Rafiq | Dr. M. A. Bazaz | Enrolled, 2017 |
| 12. | Power Management and Control of Distributed Generation Resources | Sheikh Suhail | Dr. S. J. Iqbal | Enrolled, 2017 |
| 13. | Energy Storage Devices in Power System Application | Bisma Hamid | Dr. S. J. Iqbal | Enrolled, 2017 |
| 14. | Grid-Tied PV System | Mukul Chanakya | Prof Aijaz Ahmad | Enrolled, 2017 |
| 15. | Stand-Alone Power System, Power System Stability and Control | Gazala Rashid | Prof. S. A .Lone | Enrolled, 2017 |
| 16. | Sub Synchronous Resonance | Viqar Yousuf | Prof Aijaz Ahmad | Enrolled, 2017 |
| 17. | Power System Energy Storage Devices in Power System Renewable Energy | Farhat Afzal Samoon | Dr. S. J. Iqbal | Enrolled, 2018 |
| 18. | Stand Alone Power System | Masiha Aijaz | Prof. S. A. Lone | Enrolled, 2018 |
| 19. | Control Systems | Uzma Javed | Dr. M. A. Bazaz | Enrolled, 2018 |
| 20. | Power Systems | Raza Owais | Dr. S. J. Iqbal | Enrolled, 2018 |
| 21. | Power Systems | Basit Mushtaq | Prof. M. D. Mufti | Enrolled, 2018 |
| 22. | Power Systems Stability Studies | Adil Mohiuddin | Prof. M. D. Mufti | Enrolled, 2018 |
| 23. | Renewable Energy with Power System | Zahid Farooq | Prof. S. A. Lone | Enrolled, 2018 |
| 24. | Power System Integrated with Renewable Incorporated with FACTS Devices | Nasir Rehman | Prof. M. D. Mufti | Enrolled, 2018 |
| 25 | Power System Integrated with Renewable Incorporated with FACTS Devices | Sheikh Safiullah | Prof. S. A .Lone | Enrolled, 2018 |
| 26 | Power Systems | Chandan Kumar | Prof. S. A .Lone | Enrolled, 2018 |

**V. Purchase Made:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Name of equipment** | **Date of purchase** | **Quantity** | **Price (total in Rs)** | **Annual purchase** |
| 1. | 3-Phase Motor & Power Quality Analyzer | April 2017 | 2 | 15,70,000/- | 2017 |
| 2. | OPAL-RT (Real Time Simulator) | September 2018 | 2 | 68,44,000/- | 2018 |
| 3. | Programmable AC supply | October 2018 | 1 | 14,17,500/- | 2018 |
| 4. | AC Filter Inductors and Capacitors | December 2018 | 3 inductors  3 capacitors | 12,992/- | 2018 |

**List of laboratories:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | Basic Electrical Engineering Lab | 2. | Power System Lab |
| 3. | Power Electronics Lab | 4. | Electrical Machines Lab |
| 5. | Electrical Measurements Lab | 6. | Control System Lab |
| 7. | Virtual Instrumentation Lab | 8. | High Voltage Engineering Lab |
| 9. | Electrical Energy System Lab | 10. | Computation Lab |

**4.1.4.DEPARTMENT OF ELECTRONICS & COMMUNICATIONENGINEERING**

**Head: Dr. Farida Khursheed**

**Introduction**

The Department of Electronics & Communication Engineering was established in the year 1984.The department conducts a four (04) years under-graduate academic programme leading to the award of B.Tech.Degree in Electronics & Communication Engineering. In addition, the department started M. Techprogramme in Communication & Information Technology in the year 2004.

Opportunity to do project work over a span of two semesters is provided to the students of B.Tech. to utilize their knowledge in several areas of Electronics, Communication and Computer Engineering. The students work either on design & fabrication of equipments of innovative nature or on other specific and relevant research topics as decided in consultation with the project advisor.

**Faculty:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Staff** | | | |
| **Head** | **Dr. Farida Khursheed** | | |
| **Faculties** | | | |
| **Professor** | **Associate Professor** | **Assistant Professor** | **Lecturer(on contract during the period)** |
| **Prof. A.H.Mir** | **Er. A. A. Mir** | **Dr. G. R. Begh** | **(13)** |
| **Prof. G.M.Rather** | **Dr. Farida Khursheed** |  |  |
| **Prof Najeeb ud Din** | **Dr. Gousia Qazi** |  |  |
|  | **Er. A. G. Mir** |  |  |

**I. Papers Published by the Staff (National/International during the period of 01.04.17 to 31.03.2018:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the Staff members** | **Title of the papers** | **Conference/journal etc, where published** | **Date of publishment** |
| **1** | **Dr. A.H.Mir** | Enhancement and segmentation of pituitary gland from MR brain images | International Journal of Medical Engineering and Informatics | September 2017. |
| Internet of Things Security Issues, Threats, Attacks and Counter Measures | International Journal of Computing and Digital Systems | March 2018. |
|  |  | Performance Analysis of Payload Header Suppression (PHS) for Transmission of VoIP over MPLS based IPv4/IPv6 Network | Proceedings of the 12th International Conference on Ubiquitous Information Management and Communication. ACM | January 2018. |
| **2** | **Dr. G.M.Rather** | Scope of potential in FSO Technology as compared to RF Technology in Next Generation Networks | Journal of Network Communications and Emerging Technologies (JNECET) | September 2017. |
| Analytic model for the electrical properties of negative capacitance metal-ferroelectric insulator silicon (MFIS) capacitor | Integrated Ferroelectrics, An International Journal, Taylor & Francis | December 2017 |
| Millimeter Wave Communication for Fifth generation Mobile Networks | ICACIE-2017, Springer International Conference | July 2017 |
| A Study of the coverage area of Millimeter Wave (MMW) Communication Link for Fifth Generation (5G) Mobile Networks | ICIECE-2017, Springer International Conference | August 2017 |
| Switched Mode Power Amplifiers: A brief review | IEEE International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS 2017) | November 2017 |
|  |  | A Simulation Investigation of Single Gate-Laterally Double Diffused MOSFET for RF Applications | IEEE international conference on Current trends towards Converging Technologies (IEECCMC 2018) | January 2018 |
| Investigation of Characteristic features of Dual Gate LDMOS Through Simulations | IEEE international conference on Current trends towards Converging Technologies (ICCTCT 2018) | March 2018 |
| **3** | **Dr. Najeeb ud Din** | Analytic model for the electrical properties of negative capacitance metal-ferroelectric insulator silicon (MFIS) capacitor | Integrated Ferroelectrics, An International Journal, Taylor & Francis | December 2017 |
| Comparison of parallel image scanning methods for achieving better throughput | 4th International Conference on Signal Processing and Integrated Networks (SPIN) | December 2017 |
| Effect of chirp characteristics of directly modulated laser on the signal transmission performance | 4th International Conference on Signal Processing and Integrated Networks (SPIN) | December 2017 |
| **4** | **Dr. G. R. Beigh** | Constellation expanded active interference cancellation technique for suppression of out-of-band radiation in OFDM based cognitive radios | AEU-International Journal of Electronics and Communications | June 2017 |

**II. Sponsored projects:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No** | **Title of the Project** | **Investigators(s)** | **Sponsoring Organization** | **Amount (in Rs)** | **Starting year** |
| **1** | SMDP C2S | Prof. G.M Rather  Prof Najeeb-ud-din | R & D in Electronics  group, Department of  Electronics and  Information  Technology MoCIT,  New Delhi | 129.09 lacs | 2015 |
| **2** | ISEA-II | Prof. A.H.Mir | Ministry of Communication and  Information Technology, Department of Information Technology | 36.06 Lacs | 2015 |
| **3** | Visvesvaraya | Prof. G.M Rather Prof Najeeb-ud-din | MHRD | 16 lakh | 2015 |

**III. Ongoing Doctoral Programme:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No** | **Topic** | **Investigator** | **Supervisor(s)** |
|  | **Medical Image Processing** |  | **Dr A. H. Mir** |
|  | **Wireless Sensor Networks** |  | **Dr A. H. Mir** |
|  | **Biometric Image Processing** |  | **Prof. Ajaz Hussain Mir** |
|  | **Laterally Diffused**  **MOSFET(LDMOS)** | **Najeeb ud din** | **Prof G.M.Rather Prof** |
|  | **Analog-to-Digital Converter for**  **Seismic Signals** | **Najeeb-ud-din** | **Prof G. M. Rather Prof** |
|  | **Ferroelectric Field Effect**  **Transistors** |  | **Dr Najeeb-ud-Din**  **Prof. G.M. Rather** |
|  | **DEVICE TO DEVICE**  **COMMUNICATION IN 5G** | **DR. G.R. BEGH** | **PROF. G. M. RATHER** |
|  | **Compact Microstrip (Patch)**  **Antennas for Modern Wireless**  **Applications** |  | **Prof. G.M. Rather** |
|  | **Millimeter Wave Communication**  **for Next Generation Networks** |  | **Prof. G M Rather** |
|  | **Improving QOS In IoT Networks** |  | **Prof. G M Rather** |
|  | **Interference Management In**  **Millimeter Wave Networks** | **Dr. G.R. Beigh** | **Prof. G M Rather** |
|  | **Fault Tolerance and**  **Reconfiguration of NoCs** | **Dr. Najeeb-ud-Din** | **Dr. Roohie N Mir** |
|  | **Organic Solar cells** |  | **Prof. Najeeb ud Din** |
|  | **Performance Improvement Of**  **Inorganic Solar Cells** |  | **Dr. Najeeb ud Din** |
|  | **Cloud Security** |  | **Dr. Farida Khurshid** |
|  | **Digital Image Forensics** |  | **Dr. FaridaKhurshid** |
|  | **Optical Materials** |  | **Dr.Gausia Qazi** |
|  | **Erbium Doped Optical Amplification System** |  | **Dr. Gausia Qazi** |
|  | **Quantum Well Devices** |  | **Dr. Gausia Qazi** |
|  | **CMOS IMAGE SENSORS** |  | **Dr. Gausia Qazi** |
|  | **Laser Rate Equation** |  | **Dr. Gausia Qazi** |
|  | **Interference and Resource management in NOMA for next generation Communication systems** |  | **Dr. G. R. Begh** |
|  | **Full Duplex Wireless Communications.** |  | **Dr. G. R. Begh** |
|  | **Investigation of Error Control Techniques for 5G Communications** |  | **Dr. G. R. Begh** |

**IV. Purchase Made: List of Equipment purchased during the finical year 1st April 2017 to 31st March 2018 of ECE, Department:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Name of the equipment/Item** | **Date of Purchase** | **Quantity** | **Annual Purchase** |
| 1 | Date Logger | 05-05-2017 | 01.No | Rs: 91,980/= |
| 2 | 16 Port D-Link Switch | 05-05-2017 | 02.No | Rs: 13.440/= |
| 3 | Zed board & AES-FMC HDMI-CM | 25-05-2017 | 01 each | Rs: 77,015/= |
| 4 | HP Laser Jet Printer pro M 1049 | 25-05-2017 | 01.No | Rs: 08,300/= |
| 5 | 4 KVA Automatic Transformer | 13-06-2017 | 01.No | Rs: 09,000/= |
| 6 | Power Extension Board | 28-06-2017 | 10.No | Rs: 10,000/= |
| 7 | HP Laser Jet Printer M-1136 | 28-06-2017 | 01.No | Rs: 13,100/= |
| 8 | Wireless Access Point D-Link | 07-07-2017 | 01.No | Rs; 12,000/= |
| 9 | Python C-1300 Monochrome | 11-07-2017 | 01.No | Rs: 16,675/= |
| 10 | DC/RF Sputtering System | 25-07-2017 | 01.No | Rs: 24,04,500/= |
| 11 | i. Model Observation Trainer  ii. Physics of Fiber optic system  iii. Advance Fiber Optic System  iv. Fiber Optic power meter  v. Fiber Optic Light Source  IGST @ 13.5% | 11-08-2017  11-08-2017  11-08-2017  11-08-2017  11-8-2017 | 01.No  01 No.  01 No.  02 No.  02 No. | Rs. 69,000/=  Rs. 3,75,000/=  Rs. 1,56,000/=  Rs. 37,000/=  Rs. 64,000/=  Rs. 94,634/= |
| 12 | WD Multimeter/Demulter plexer Setup | 05-09-2017 | 01 No. | Rs. 1,28,100/= |
| 13 | a) Gunn Oscillator  b) Pin Modulator  c) Isolator  d) Frequency Meter  e) Variable Attenuator (DIR)  f) Slotted Section  g) Detector Mount  h) Movable Short  Matched Termination  i) Wave Guide stand  j) Slide screw Tuner  k) Fixed Short  l) Cooling Fan  m) VSWR Meter (A)  n) Gunn Power Supply  o) Tunable Probe  CST @ 5% | 05-09-2017 | 01 No.  01 No.  01 No.  01 No.  01 No.  01 No.  01 No.  01 No.  01 No.  04 No.  01 No.  01 No.  01 No.  01 No.  01 No.  01 No. | Rs. 8,915/=  Rs. 5,326/=  Rs. 3,615/=  Rs. 7,798/=  Rs. 3,777/=  Rs. 5,419/=  Rs. 2,874/=  Rs. 1,806/=  Rs. 1,725/=  Rs. 1,488/=  Rs. 2,627/=  Rs. 247/=  Rs. 903/=  Rs. 11,002/=  Rs. 7,507/=  Rs. 1,971/=  Rs. 3,350/= |
| 14 | HP Laser Jet Printer M1136 | 09-10-2017 | 01 No. | Rs. 13,900/= |
| 15 | Steel Rack Having front & back open with tool | 09-10-2017 | 01 No. | Rs. 8,900/= |
| 16 | D-link Wireless WiFi Adaptor  131 Wireless Adaptor | 18-10-2017 | 100 No. | Rs. 89,680/= |
| 17 | Paper Shredder Actva CC228Cd | 20-10-2017 | 01 No. | Rs. 13,650/= |
| 18 | D-link Wireless N POE Access Point (DAP)  Router 2230. | 31-10-2017 | 01 No. | Rs. 14,000/= |
| 19 | ONSEMI Python 1300 Color Camera | 10-11-2017 | 01.No | Rs 36,113/= |
| 20 | 5 KVA Stabilizer make Servokon AVR | 30-11-2017 | 01.No | Rs; 11,033/= |
| 21 | Projector DLP technology 128x800 with all  Accessories | 14-12-2017 | 02.No | Rs: 75,000/= |
| 22 | Online UPS 5 KVA with Insulator Input single Phase ( By back batteries) | 23-12-2017 | 01. No | Rs; 61,825/= |
| 23 | ASUS hybrid Programmable system (Computers Work station) | 05-04-2018 | 06.No | Rs: 13,50,000/= |

**List of Laboratories:**

|  |  |  |  |
| --- | --- | --- | --- |
| **1.** | **Analog Electronics Laboratory** | **10.** | **Network Security Laboratory** |
| **2.** | **Computational Laboratory** | **11.** | **Characterization Laboratory** |
| **3.** | **Image Processing Laboratory** | **12.** | **Biomedical Laboratory** |
| **4.** | **Digital Electronics Laboratory** | **13.** | **Biometric Research Laboratory** |
| **5.** | **Microprocessor Laboratory** | **14.** | **Embedded Laboratory** |
| **6.** | **VLSI Laboratory** |  |  |
| **7.** | **Advanced Communication Laboratory** |  |  |
| **8.** | **Communication Laboratory** |  |  |
| **9.** | **Fiber Optical Laboratory** |  |  |

**­­**

**4.1.5. DEPARTMENT OF CHEMICAL ENGINEERING**

**Head: Dr.F.Q.Mir**

**Introduction**

The Department of Chemical Engineering was started in 1963 with a five year degree programme (B.E.) in Chemical Engineering. The Department presently offers instructions at undergraduate level leading to 4 year B.Tech. Degree in chemical Engineering.

Department has produced more than 1500 Chemical Engineering graduates, majority of them belonging to different parts of the Country and some belonging foreign countries like, Iran, Libya, Jordan, Palestine, Saudi Arabia and Sudan. The Department has been maintaining a high standard of teaching and professional training to enable the students to compete in the national and international job markets. Department has been maintaining close liaison with various Institutes and industries.

***FACULTY***

|  |  |  |  |
| --- | --- | --- | --- |
| Academic staff: |  | | |
| Head | Dr. F. Q. Mir | | |
| Faculties: | | | |
| Professor | Associate Professor | Assistant Professor | Lecturer (on contract)  During the period |
| Prof. M. N. S. Khan | Nil | Dr. F. Q. Mir | Mr. Mohammad Asif |
|  | Mr. T. R. Dar | Mr. Mohd Umair Iqbal |
| Dr. M. A. Rather | Dr. Shashikant Kumar |
| Mr. M. P. Ahmad | Mr. Aash Mohammad |
| Miss Fatima Jalid (Trainee Teacher) | Mr. Rupak Kumar Singh |
|  | Miss Parul Singh |
| Miss Iqra |
| Miss Iqra Akbar |
| Mrs Afkham Mir |

I. **Papers Published by the staff (National/International) during the period of 01.04.2017 to 31.03.2018**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Name of the staff members** | | **Title of the papers** | **Conference/Journal where published** | | | | **Date of publishing** |
|  | Rather, M.A., Khan, N.S.  and Gupta, R. | | Hydrothermal carbonization of macrophyte *Potamogeton lucens* for solid biofuel production | Engineering Science and Technology, an International Journal | | | | 2017 |
|  | Tanveer Rasool | | Fast pyrolysis studies on locally available biomass wastes: Kinetics and Physicochemical Characterization | National Conference on “Frontiers in Chemical Sciences” | | | | Nov., 2017 |
|  | T. Rasool, M.N.S. Khan, V. C. Srivastava | | Pyrolysis and kinetic analyses of Banyan tree (*Ficus Benghalensis*) plant biomass waste for bio energy potential | International Conference on Engineering Technologies, ICENTE'17, Konya Turkey. | | | | 07-09 Dec.-2017 |
|  | Tanveer Rasool, Shashikant Kumar, Waris Baba | Synthesis and Characterization of High Surface Area Bio-adsorbents from locally available biomass waste using chemical activation with H2SO4 | | | CHEMCON-2017 | | 2017 | |
|  | Fatima Jalid, Tuhin Suvra Khan, Fasil Qayoom Mir, M. Ali Haider | Understanding trends in hydrodeoxygenation reactivity of metal and bimetallic alloy catalysts from ethanol reaction on stepped surface. | | | Int. Journal of Catalysis | | 2017 | |
|  | Fatima Jalid, Tuhin S. Khan, M. Ali Haider | Micro Kinetic Model for Ethanol Steam Reforming on Transition Metal Surfaces. | | | APCAT-7, Mumbai | | 2017 | |
|  | Mushtaq Ahmad Rather | Synthesis of Activated Carbon from Dal Lake Water Chestnut Shell. Study Its Adsorption Potential Towards Methylene Blue as Model Dye. | | | 9th International Conference on Science, Technology and Management (ICSTM-17) | | 14th Oct 2017. | |
|  | Mushtaq Ahmad Rather | Photocatalytic degradation of methylene blue dye. | | | Frontiers in Chemical Sciences (FICS) – 2017 | | Nov 4- 5, 2017. | |
|  | Mushtaq Ahmad Rather, Noor Salam Khan, Mohd Shafi Charoo, Mohd Hanief , Fasil Qayoom Mir | Catalytic Hydrothermal liquefaction of aquatic weed Ceratophyllum demersum for production of bio oil a promising alternative fuel. | | | International Conference on Engineering Technologies (ICENTE’17), Konya Turkey. | | Dec 07-09, 2017. | |
|  | Prakhar Misra, Abhishek Sinha,  Fasil Q Mir, Anurag S Rathore, Anupam Shukla, , | A three plus three parameters mechanistic model for viral filtration. | | | Biotechnology Progress | | 2017 | |
|  | Fasil Qayoom Mir, Babar Ahmad, Anupam Shukla. | Influence of Concentration and Temperature on Transport Properties In Cation-Exchange Membrane | | | International Conference on Sustainable Energy and Environmental Challenges | | 31-12-17 03-01-18 | |
|  | T. Rasool,  V. C. Srivastava,  M. N. S Khan | Bioenergy potential of Salix alba assessed through kinetics and thermodynamic analyses. | | | Process Integration and Optimization for Sustainability | | 2018 | |
|  | T. Rasool,  M. N. S Khan,  V. C. Srivastava | Utilization of waste biomass, walnut shells, to produce bio-products via pyrolysis: investigation using iso-conversional and neural network methods. | | | Biomass Conversion and Biorefinery | | 2018 | |
|  | Rasool T, Srivastava VC, Khan MNS | Kinetic and thermodynamic analysis of thermal decomposition of deodar (*Cedrus Deodara*) saw dust and rice husk as potential feedstock for pyrolysis. | | | | International Journal of Chemical Reactor Engineering | 2018 | |
|  | Mushtaq Ahmad Rather | Production of hydrochar providing fuel from aquatic weed *P. crispur*. | | | | ICSTM’ 17 Oct-14, 2017 Delhi | 2017 | |

II. **Program attended by the staff (conferences/courses/Training):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name of the staff members** | **Name of the program attended** | **Institute where attended** | **Date** |
|  | Dr. Tanveer Rasool |  |  |  |
| 1. | Dr. Tanveer Rasool | "Artificial Neural Network and Fuzzy Logic through ICT" | NITTTR Chandigarh at N.I.T Srinagar | * 1. April,2017. |
| 2. | Dr. F. Q. Mir | Management Capacity Enhancement Program for Teaching Staff | Engineering Staff College of India at Dr. B. R. Ambedkar Institute of Technology Port Blair | 28th Jan- 1st Feb, 2018. |
| 3. | Dr. F. Q. Mir | Transport Processes | I.I.Sc. Bengaluru | July 24-28, 2017 |
| 4. | Dr. M. A. Rather | Transport Processes | I.I.Sc. Bengaluru | July 24-28, 2017 |
| 5. | Dr. F. Q. Mir | 'Continuing Professional Development Programme on Air Pollution Monitoring and Modelling using Software Applications- Theory and Practical's | Engineering Staff College of India, Hyderabad. | 28th to 30th Nov, 2017 |
| 6. | Dr. F. Q. Mir | Artificial Neural Network and Fuzzy Logic | Computer Science & Engineering Department, NIT Srinagar. | 24 -28/04/2017. |
| 7. | Prof. Muhammad .N. S. Khan | 02 day workshop on Outcome Based Accreditations (under TEQIP-III) | N.I.T. Srinagar | March 17 to 18, 2018. |

III. **Program conducted (conferences/courses/training) by the department:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name of the Programme** | **Date when conducted** | **Name of the coordinator (s)** | **Sponsoring Agency , if any** |
| 1. | One day Workshop on Process Safety | 8th of June, 2017 | Dr. F. Q. Mir | Financed by the Institute (NIT Srinagar) itself. |
| 2. | "Connecting People with Nature-CPTN-2017" at N.I.T Srinagar, | 25th-29th Sep., 2017 | Dr. Tanveer Rasool, Dr. M. A. Rather | IEI JK State Center, Dawar Cements, H.K Cements, J&K Bank |
| 3. | Short term course on “Process Control" | 13-17, Nov-2017 | Dr. M. A. Rather,  Dr. F. Q. Mir | Financed by the Institute (NIT Srinagar) itself. |
| 4. | National Conference on “Recent Innovations in Science, Technology and Engineering | Dec-2017 | Dr. M. A. Rather | Financed by the Institute (NIT Srinagar) itself. |
| 5. | Distance learning programme (National Mission on Education through information and Communication Technology , MHRD) from IIT Bombay | July 2017, | Dr. M.P. Ahmad | IIT Bombay |
| 6. | Five day (one week) short term course on Transport Processes | February 20 to 24, 2018 | Dr. F. Q. Mir,  Dr. M. A. Rather | Financed by the Institute (NIT Srinagar) itself. |
| 7. | 02 day workshop as co- coordinator on Outcome Based Accreditation (under TEQIP-III) | March 17 to 18, 2018. | Prof. G.A. Harmain, Dr. M.S. Charoo, Dr. F. Q. Mir | Financed by TEQIP-III |

IV. **Sponsored Projects:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No.** | **Title of the Project** | **Investigator(s)** | **Sponsoring Organization** | **Amount (in MHRD)** | **Starting Year** |
| 01. | Briquetting of Dal Lake weeds to be used as fuel source | MHRD. M. A. Rather | MHRD | 23.94 lacs | January 2018 |

V. **Ongoing Doctoral Program:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Topic** | **Investigator(s)** | **Supervisor(s)** | **Degree awarded** |
| **1.** | Hydrothermal Conversion of Dal Lake Weeds into Biofuels | Mushtaq Ahmad Rather | Dr. M. N. S. Khan,  Dr. Rajat Gupta | Yes |

**VI. Purchase Made:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name of the equipment/item** | **Date of purchase** | **Quantity** | **Annual purchase** |
| 1. | Ultrasonic bath (SS body & SS tank capacity -30Ltrs | 5/5/2017 | 01 | 2017-2018 |
| 2. | Magnetic stirrer with hot plate | 1/8/2017 | 01 | 2017-2018 |
| 3. | REMI magnetic stirrer | 12/12/2017 | 03 | 2017-2018 |
| 4. | Muffle furnace | 18/1/18 | 01 | 2017-2018 |
| 5. | Refrigerator | 22/1/2018 | 01 | 2017-2018 |
| 6. | Bench top orbital shaker | 22/1/2018 | 01 | 2017-2018 |
| 7. | Sieve shaker | 22/1/2018 | 01 | 2017-2018 |
| 8. | Chittic Apparaus | 08/2/2018 | 01 | 2017-2018 |
| 9. | Overhead Mechanical Stirrer | 08/2/2018 | 01 | 2017-2018 |
| 10. | Vacuum Pump | 08/2/2018 | 01 | 2017-2018 |
| 11. | 1KVA online UPS | 08/2/2018 | 01 | 2017-2018 |
| 12. | Sieve Set | 08/2/2018 | 01 | 2017-2018 |

**LIST OF EXISTING LABORATORIES:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | Biochemical Engineering | 7. | Mass Transfer |
| 2. | CAD Laboratory | 8. | Mechanical Operations |
| 3. | Chemical Reaction Engineering | 9. | Membrane Science & Technology |
| 4. | Energy Engineering | 10. | Process Control |
| 5. | Environmental Engineering | 11. | Catalysis Laboratory |
| 6. | Heat Transfer |  |  |

**Other Activity/Achievements with details:**

**A. Tanveer Rasool**

1. Invited Speaker at a National Symposium" Frontiers in Chemical Sciences (FICS)-2017" at Govt. Degree College Sopore on Nov 04-05, 2017.

2. Delivered an expert lecture on Fluid flow measurements and Pumps, to students of Food Technology, IUST Awantipora J&K on 21-12-2017.

3. Conducted two AMIE Examinations (summer and winter) as Officer Incharge in June-2017 and Dec-2017.

**B. Malik Parveez Ahmad**

1. Delivered an expert lecture on Separation Technologies, to students of Food Technology, IUST Awantipora J&K on 27-12-2017.

**C. Mushtaq Ahmad Rather**

1. Invited Speaker at a National Symposium" Frontiers in Chemical Sciences (FICS)-2017" at Govt. Degree College Sopore on Nov. 04-05, 2017.

2. Delivered an expert lecture on Reaction Engineering, to students of Food Technology, IUST Awantipora J&K on 26-12-2017.

3. Organized fresher’s orientation day at NIT Srinagar on August 16th 2017.

4. Conducted two AMIE Examinations (Summer and winter) as Superintendent in June-2017 and Dec-2017.

**D. F. Q. Mir**

1. Delivered an expert lecture on Heat Transfer Equipment Design, to students of Food Technology, IUST Awantipora J&K on 21-12-2017.

**4.1.6. DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING**

**Head: Dr. Yashwant Mehta**

The department of **“Metallurgical & Materials Engineering”** formerly known as the “Department of Metallurgical Engineering” was established in our Institute in the year 1963. The department conducts a four (04) years under-graduate academic programme leading to the award of **B.Tech.Degree** in engineering.

A two semester “Project Work” is provided to the students to synthesize their knowledge in several areas of metallurgical & materials engineering.

The objective of the department is to produce technocrats who possess besides necessary technical knowledge, human and social values, leadership qualities and a high degree of confidence & technical creativity.

The department through interactions with academia and industries at national levels intends to excel in metallurgical and materials engineering and in the allied areas by up-dating its academic curriculum and R & D activities so as to meet the requirements of the academia, industries and R & D centres.

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic staff**: | | | |
| **Head** | Dr Yashwant Mehta | | |
| **Faculties**: | | | |
| **Professor** | **Associate Professor** | **Assistant Professor** | **Lecturer (on contract) during the period** |
| Dr RajinderAmberdar | Dr GitanjalyGoel | Dr Yashwant Mehta |  |
| Dr DMAfzal Khan |  | Dr AtikurRehman |  |

**I. Papers published by the staff (National/ International) during the period of 01.04.2017 to 31.03.2018:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the staff member** | **Title of the paper** | **Conference/journal, where published** | **Date of publishment** |
| 1. | Dr.Yashwant Mehta | Microstructural Evolution of High Phosphorus Steel Using Warm Multiaxial Deformation | Materials Today: Proceedings Volume 4, Issue 9, 2017, Pages 9380-9383. | 2017 |
| A study on chloride induced depassivation of Fe-P-C-Si and Fe-P-C-Si-N steels in simulated concrete pore solution | International Conference on Recent Advances in Materials, Mechanical and Civil Engineering ICRAMMCE-2017, (June 2017) Hyderabad-Telangana | 2017 |
| Microstructural evolution in Fe-0.13P-0.05C steel during compression at elevated temperatures | International Conference on Recent Advances in Materials, Mechanical and Civil Engineering ICRAMMCE-2017, (June 2017) Hyderabad-Telangana | 2017 |
| 2. | Dr.Atikur Rahman | Probing noncommutative theories with quantum optical experiments | Nuclear Physics | Oct 2017 |
| Synthesis, Characterization and Photocatalytic Studies of   La, Dy - doped ZnO nanoparticles | Transactions of the Indian Institute of Metals, Vol.70,Issue(4),pp 1063-1074 | May 2017 |
| Study of Degradation Behavior of Sputtered Co-Al Coatings on Superalloys | Proceeding of International conference on Recent Trends in “ Mechanical, Materials, Industrial, Automotive, Aeronautical and Nano-Technology” (MIANT-2017) organized by KRISHI SANSKRITI on 9th September 2017, Convention centre, JNU , New Delhi, volume 4, issue 6**,** pp 515-515, 2017 | Sep 2017 |
| High Temperature Oxidation Behavior of Fe-Ni-Al alloy | Proceeding of International conference on Recent Trends in “ Mechanical, Materials, Industrial, Automotive, Aeronautical and Nano-Technology” (MIANT-2017) organized by KRISHI SANSKRITI on 2nd April 2017, Convention centre, JNU , New Delhi, volume 4, issue 1**,** pp 41-41, 2017 | Sep 2017 |

**II. Testing and Consultancy services rendered during 2017-18:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Title of the project** | **Consultancy rendered to (Name of agency)** | **Amount Earned** |
| 1 | Testing of grinding balls | Cement industry/ Khrew | Rs. 10,000/- |

**III. Purchase Made:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No. | Name of the equipment/item | Date of purchase | Quantity | Annual purchase |
| 1. | Disc polishing machine | 29.06.2017 | 02 |  |
| 2. | Metallographic belt grinder | 08.06.2017 | 01 |  |
| 3. | Microstructure image analysing system | 08.06.2017 | 01 |  |
| 4. | Metallurgical inverted microscope | 08.06.2017 | 06 |  |

**List of Laboratories:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | Physical Metallurgy | 2 | Mechanical Metallurgy |
| 3. | Corrosion Engg | 4. | Powder Metallurgy |

**4.1.7 . DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**Head:** M. Ahsan Chishti

**Introduction**

The Department of Computer Science & Engineering was started in the year 2007, offering four year undergraduate courses, wherein undergraduate students are imparted knowledge in multitude of specialties, including: computer Architecture, Network, Operating System, Data Structure and Algorithm, Theory of Computation, Numerical analysis, Compiler design, Graphics, Artificial intelligence, Database Management System, Data mining, Software Engineering, Human computer interaction, etc.

The Department of Computer Science and Engineering embodies the Institute's tradition of excellence as a world-class leader in computer science and engineering education and research. CSE is in a period of exciting growth and opportunity. In the current ever evolving industrial scenario contents delivered to the students are regularly updated by the faculty members who have themselves been at the helm of path breakingresearches and innovations.

In addition to academic work, the CSE department also has computer science research programmes (for a full listing of specialties visit Research Areas) supported through government and industry funding. Faculty research helps define and expand the current and future use of technology.

During the year the students passed out from the department got placed in various National and Multinational companies with 100% placement.

**Faculty:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Staff:** Computer Science and Engineering | | | |
| **Head** | Dr. Ahsan Chishti | | |
| **Faculties** | | | |
| **Professor** | **Associate Professor** | **Assistant Professor** | **Lecturer (on contract) during the period** |
| Prof. Roohie Naaz Mir |  | Dr. Mohammad Ahsan Chishti | Ms. Ambreen Bashir |
|  | Dr. Shaima Qureshi | Ms. Tahoor Hussain |
|  | Ms. Ifrah Sanober |
| Ms. Azra Nazir |
| Ms. Snowber Mushtaq |
| Ms. Rumaisa Firdous |
| Mr. Asim Rafiq |
| Mr. Nadeem Khanday |

I. **Papers Published by the Staff (National / International) during the period of 01.04.2017 to 31.03.2018:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S. No.*** | ***Name of the Staff members*** | ***Title of the papers*** | ***Conference/Journal etc, where published*** | ***Date of publication*** |
| 1 | Prof. Roohie Naaz Mir | Forensic-chain: Ethereum blockchain based digital forensics chain of custody | Scientific & practical cyber security journal (SPCSJ) | December, 2017 |
| 2 | Prof. Roohie Naaz Mir | IoT Fog Cloud Model for Digital Reach in Rural India | International Conference on Computer Networks and Communication Technologies 2018, Singapore. | January, 2018 |
| 3 | Dr. Mohammad Ahsan Chishti | Cyber terrorism in the light of Internet of things | 5th Global Conference on Cyberspace, New Delhi, India | 23 -24 November, 2017 |
| 4 | Dr. Mohammad Ahsan Chishti | The Dark Side – Understanding and Mitigating the Current Threats in the Cyber Vapor and IoT | International Conference on Communication, Computing, Storage & Energy (IC3SE-18), Pune, India | 15-17 February, 2018 |
| 5 | Dr. Mohammad Ahsan Chishti | Identifying Various Risks in Cyber-Security and Providing a Mind-map of Network Security Issues to Mitigate Cyber Crimes | Springer LNNS Series - 2nd International Conference on Communication, Computing and Networking to be held during, Chandigarh, India | 29-30 March, 2018 |
| 6 | Dr. Mohammad Ahsan Chishti | Fog and IoT: A Survey | IEEE International conference on Communication and signal processing (ICCSP), Chennai, India | 6-8 April, 2017 |
| 7 | Dr. Mohammad Ahsan Chishti | A model to incorporate automated negotiation in IoT | IEEE International Conference on Advanced Networks and Telecommunications Systems (IEEE ANTS), ,Bhubaneswar, Odisha, India | 17-20 December, 2017 |
| 8 | Dr. Mohammad Ahsan Chishti | Distributed IoT Analytics across Edge, Fog and Cloud | IEEE Fourth International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN 2018), , Kolkata, India. | 22 – 23 November, 2018 |
| 9 | Prof. Roohie Naaz Mir and Dr. Mohammad Ahsan Chishti | Clustering Internet of Things: A Review | Journal of Science And Technology | December, 2017 |
| 10 | Prof. Roohie Naaz Mir and Dr. Mohammad Ahsan Chishti | Machine learning at the Edge of Internet of Things | CSI Communications | November, 2017 |
| 11 | Prof. Roohie Naaz Mir and Dr. Mohammad Ahsan Chishti | Semantic Smart City: Context Aware Application Architecture | 2nd IEEE International conference on Electronics, Communication and Aerospace Technology (ICECA 2018) | 29 -31 March, 2018 |
| 12 | Prof. Roohie Naaz Mir and Dr. Mohammad Ahsan Chishti | Ethical Objects for the Internet of Things | 2nd IEEE International conference on Electronics, Communication and Aerospace Technology (ICECA 2018) | 29 -31 March, 2018 |
| 13 | Prof. Roohie Naaz Mir and Dr. Mohammad Ahsan Chishti | Incorporating Ethics in Internet of Things (IoT) Enabled Connected Smart Healthcare | The Second IEEE/ACM Conference on Connected Health: Applications, Systems and Engineering Technologies, , Philadelphia, USA | 17 -19 July, 2017 |
| 14 | Dr. Mohammad Ahsan Chishti and Dr. Shaima Qureshi | Performance Analysis of Payload Header Suppression (PHS) for Transmission of VoIP over MPLS based IPv4/IPv6 Network | ACM The 12th International Conference on Ubiquitous Information Management and Communication (ACM IMCOM), Langkawi, Malaysia | 5 to 7 January, 2018 |

II. **Programme Conducted (Conferences/Courses/ Trainings) by the Department:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S. No.*** | ***Name of the Programme*** | ***Date When Conducted*** | ***Name of the Coordinator(S)*** | ***Sponsoring Agency, if any*** |
|  | Short term course on Artificial Neural Network & Fuzzy logic through ICT | 24-28 April, 2017 | Dr. Mohammad Ahsan Chishti | NITTTR Chandigarh |
|  | 2nd Advanced Conference on Computing, Communication and Electronics | 17-18 May, 2017 | Dr. Mohammad Ahsan Chishti |  |
|  | Workshop and Coding Festival “Exordium” | 3-7 November, 2017 | Dr. Mohammad Ahsan Chishti |  |
|  | Short term course on Open Source Technologies | 13-17 November, 2017 | Dr. Shaima Qureshi | NITTTR Chandigarh |

III. **Ongoing Doctoral Programme :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Topic** | **Investigator** | **Supervisor(s)** | **Degree awarded** |
| 1 | VLSI Architecture | Mr. Burhan Khurshid | Prof. Roohie Naaz Mir | Awarded |
| 2 | Reconfigurable Hardware, Network-on-Chip | Mr. Liyaqat Nazir | Prof. Roohie Naaz Mir | Awarded |
| 3 | Wireless Sensor Networks | Mr. Shabir Ahmad Sofi | Prof. Roohie Naaz Mir | Pursuing |
| 4 | Security in IoT | Mr. Zahoor Ahmad Najar | Prof. Roohie Naaz Mir | Pursuing |
| 5 | Wireless Sensor Networks | Ms. Sukhkirandeep Kaur | Prof. Roohie Naaz Mir | Pursuing |
| 6 | Ethics in the Internet of Things | Mr. Sahil Sholla | Prof. Roohie Naaz Mir/ Dr. Mohammad Ahsan Chishti | Pursuing |
| 7 | Network-on-Chip | Mr. Afshan Amin Khan | Prof. Roohie Naaz Mir/ Prof. Najeeb Ud Din | Pursuing |
| 8 | Big Data Analytics | Mr. Asif Ali Banka | Prof. Roohie Naaz Mir | Pursuing |
| 9 | Fog Computing | Mr. Mohammad Irfan Bala | Dr. Mohammad Ahsan Chishti | Pursuing |
| 10 | Security in IoT | Ms. Omerah Yousuf | Prof. Roohie Naaz Mir | Pursuing |
| 11 | Data Analytics in IoT | Ms. Tausifa Jan Saleem | Dr. Mohammad Ahsan Chishti | Pursuing |
| 12 | Security in IoT | Ms. Syed Rameem Zahra | Dr. Mohammad Ahsan Chishti | Pursuing |
| 13 | Data Aggregation in IoT | Mr. Ab. Rouf Khan | Dr. Mohammad Ahsan Chishti | Pursuing |
| 14 | Resource Management in IoT | Ms. Saniya Zahoor | Prof. Roohie Naaz Mir | Pursuing |
| 15 | Blockchain Technology and its Potential Application Areas | Mr. Auqib Hamid Lone | Prof. Roohie Naaz Mir | Pursuing |
| 16 | Machine Learning at Edge | Mr. Mohammad Khalid Pandit | Prof. Roohie Naaz Mir/ Dr. Mohammad Ahsan Chishti | Pursuing |
| 17 | Pattern Recognition with Machine Learning | Mr. Vipul Kumar Sharma | Prof. Roohie Naaz Mir | Pursuing |
| 18 | Security in IoT | Ms. Neelam Saleem Khan | Dr. Mohammad Ahsan Chishti | Pursuing |
| 19 | Cognitive Radio Networks | Mr. Mohammad Asifuddola | Dr. Mohammad Ahsan Chishti | Pursuing |
| 20 | Internet of Things | Mr. Jameel Ahmed | Dr. Mohammad Ahsan Chishti | Pursuing |

IV. ***Purchase Made:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S. No.*** | ***Name of the equipment/Item*** | ***Date of Purchase*** | ***Quantity*** | ***Annual Purchase*** |
| 1 | Oscilloscope | 05/05/2017 | 05 |  |
| 2 | FPGA Module | 12/06/2017 | 10 |  |
| 3 | HP LaserJet Printer | 18/05/2017 | 01 |  |
| 4 | HP LaserJet Pro 3000S3 | 18/05/2017 | 02 |  |

**LIST OF LABORATORIES:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Computer Programming Lab | 2 | Internet & Web Designing Lab |
| 3 | Computer Networks Lab | 4 | Computer Graphics Lab |
| 5 | Database Lab | 6 | Artificial Intelligence Lab |
| 7 | Compiler Lab |  |  |

**4.1.8 . DEPARTMENT OF INFORMATION TECHNOLOGY**

**Head: Mr.** Shabir Ahmad Sofi

**Introduction**

The Department of Information Technology was established in 2007, offering four year undergraduate programme (B.Tech) in Information Technology. This undergraduate programme is of 4 years duration with the first year spread over two semesters which is common to all the branches. The intake capacity of the department was 40 in 2007 and then subsequently increased to 60 in 2011. The Department offers a broad curriculum including: Database Management, Software Engineering, Management of Information Systems, Data mining, Computer Graphics, Advanced Internet Technology, Computer Networks, Operating System, Data Structures and Algorithms as the main courses and other courses in collaboration with the other departments of the Institute at the undergraduate level.

The Department of Information Technology embodies the Institute's tradition of excellence as a world-class leader in IT education and research. IT sector is in a period of bloom in terms of growth and opportunity. In the current ever evolving industrial scenario contents delivered to the students are regularly updated by the faculty members who have themselves are well acquaintedwith path breaking research and innovations in the present technology-oriented world.

**Faculty:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Academic Staff**: | | | | |
| **Head** | Shabir Ahmad Sofi  Arooj Nissar w.e.f. 13/11/2017 | | | |
| **Faculties:** | | | | |
| **Professor** | **Associate Professor** | **Assistant Professor** | **Teacher Trainee** | **Assistant Professor**  **(on contract)** |
|  |  | Shabir Ahmad Sofi | Janibul Bashir | Neelam Saleem  (Resigned 8/9/2017) |
| Ms Arooj Nissar | Iqra Altaf | Aejaz Farooq  (Resigned 18/8/2017) |
|  |  | Jahangeer Ali |
| Kalimullah Lone |
| Farhana Nazir |
| Rameesa Mufti |
| Insha Altaf |
| Insha Majeed  (Resigned 18/8/2017) |
| Asra Nissar  (Joined 29/8/2017) |
| Jasra Jabbar  (Joined 11/9/2017) |
| Deebha Mumtaz  (Joined 11/9/2017) |

I. **Papers Published by the Staff (National / International) during the period of 01.04.2017 to 31.03.2018:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S.No*** | ***Name of the Staff members*** | ***Title of the papers*** | ***Conference/Journal etc, where published*** | ***Date of publishment*** |
| ***1*** | ***Shabir Ahmad Sofi*** | “Natural algorithm based adaptive protocol for Underwater WSN” | IEEE | 2017 |
| ***2*** | Neelam Saleem | “Domain Dictionary based Metadata construction for search over Encrypted Cloud Data”. | 2nd Springer International Conference on Intelligent communication, Control and Devices | 15-16 April 2017 |
| ***3*** | Neelam Saleem | “Secure Metadata based search over Encrypted Cloud Data Supporting Similarity Ranking” | International Journal of Computer Science and Information Security | March 2017 |
| ***4*** | Jahangeer Ali | "Data Confidentiality by Using RSA Algorithm for Encryption and Decryption of Data in Multi-tenant Cloud Computing Environment" | IEEE | 2017 |
| ***5*** | Jahangeer Ali | "Enhancing the Security of CAPTCHA based on the New Character Locations" | IEEE | 2017 |
| ***6*** | Janibul Bashir | “Optical overlay nuca: A high-speed substrate for shared L2 caches” | ACM | 2017 |
| ***7*** | Janibul Bashir | “POSTER: BigBus: A Scalable Optical Interconnect” | IEEE | 2017 |
| ***8*** | Janibul Bashir | “NUPLet: A Photonic Based Multi-Chip NUCA Architecture” | IEEE | 2017 |

II. **Programme attended by the Staff (Conferences/Courses/ Trainings):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S.No.*** | ***Name of the Staff members*** | ***Name of the programme attended*** | ***Institute where attended*** | ***Date*** |
| ***1*** | Janiul Bashir | Parallel Architecture and Compilation Technique | PACT USA | 9-16 September 2017 |
| ***2*** | Janiul Bashir | International Conference on Computer Design | ICCD USA | 1-14 November 2017 |

III. ***Purchase Made:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S.No.*** | ***Name of the equipment/Item*** | ***Date of Purchase*** | ***Quantity*** | ***Annual Purchase*** |
| ***1*** | 8085 Microprocessor | 24/04/2017 | ***1set*** |  |
| ***2*** | D-link Switch 16 port | 04/05/2017 | ***6*** |  |
| ***3*** | HP pendrive 16GB | 04/04/2017 | ***12*** |  |
| ***4*** | Wifi Devices | 04/05/2017 | ***5*** |  |
| ***5*** | Printer inkjet brother | 04/05/2017 | ***2*** |  |
| ***6*** | HP Scanjet | 11/05/2017 | ***3*** |  |
| ***7*** | Hp Laserjet Printer | 19/06/2017 | ***1*** |  |
| ***8*** | Electric Extension | 20/06/2017 | ***20*** |  |
| ***9*** | D-link 24 port switch | 21/06/2017 | ***4*** |  |
| ***10*** | Canon All-in-one | 21/06/2017 | ***1*** |  |
| ***11*** | Vaccum Cleaner | 21/06/2017 | ***1*** |  |
| ***12*** | Electric Kettle | 21/06/2017 | ***2*** |  |
| ***13*** | Induction Heater | 21/06/2017 | ***1*** |  |
| ***14*** | MicroWave Oven | 21/06/2017 | ***1*** |  |
| ***15*** | Tool KIT | 21/06/2017 | ***2*** |  |
| ***16*** | Biometric secure eye | 17/08/2017 | ***1*** |  |
| ***17*** | 1.3 MP Tr out Camera | 17/08/2017 | ***1*** |  |

**LIST OF LABORATORIES:**

|  |  |
| --- | --- |
| 1 | IOT/WSN and Embedded Systems |
| 2 | Data mining and analytics lab |
| 3 | Information Security and Forensics  Lab |

**4.1.9. DEPARTMENT OF MATHEMATICS**

**Head:** Dr. Zamrooda Jabeen

**Introduction**

The Department of Mathematics, National Institute of Technology, Srinagar started its functioning in the year 1960. During past 52 years, many mathematicians of International repute like Prof. Q. I. Rehman, Prof. M. A. Ansari (Bretlee Ansari’s test), Prof. S. I. Hussain, Prof. A. H. Siddiqui, Prof. A. G. Lone and many worked in the Department. The faculty members of this department are actively engaged in research and published more than 100 research papers in journals of national and international repute. The Department has produced 8 PhD’s in last five years. The faculty of the Department is actively engaged in organizing workshops, national and international conferences.

The department is teaching around 50 courses to B.Tech students and 8 courses to M.Tech and M.Phill/Ph.D students.

**Faculty**:

1. Dr. Zamrooda Jabeen Head of the Department

2. Dr. Ab. Liman Associate Professor

3. Dr. Neyaz Ahmad Sheikh Associate Professor

4. Dr. Tanweer Jalal Associate Professor

5. Dr. Mehraj Ahmad Lone Lecturer(on Contract)

6. Dr. Mohd Younus Bhat Lecturer(on Contract)

7. Dr. Mohamd Saleem Lone Lecturer(on Contract)

8. Mr.Tufail Mohammad Shah Lecturer(on Contract)

**R&D Work during 2017-18:**

**I. Papers published by the staff (National/ International) Journals.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Authors** | **Title of the paper** | **Name of the Journal/ Conference** | **Venue & Date** |
| 1. | Prof. Ab. Liman | Inequalities pertaining to rational functions with prescribed poles | Filomat | May 2017 |
| 2. | Prof. Ab. Liman | Applications of the Schwarz lemma to inequalities for polynomials with restricted zeros | Journal of Analysis | July 2017 |
| 3. | Prof. Ab. Liman | Some Inequalities for polynomials with a multiple zero at origin | Non. Func. Anal.Appl | September 2017 |
| 4. | Prof. Neyaz Ahmad Sheikh | Some New Inequalities for Wavelet Frames On local Fields | Analysis In Theory And Applications | December 2017 |

Professor Abdul Liman,

Department of Mathematics

National Institute of Technology

Srinagar

**FIELD OF SPECILIZATION : COMPLEX FUNCTION THEORY**

**Ph.D AWARDED :**

1.Dr. Lubna Wali Shah, 2018, GROWTH, INEQUALITIES AND DISTRIBUTION OF ZEROS OF POLYNOMIALS .

2. Dr. Infan Ahmad Faiq, 2018, GEOMETRY OF MEROMORPHIC FUNCTIONS AND APPLICATIONS .

**RESEARCH PAPERS PUBLISHED :**

1. Irshad Ahmad and Ab. Liman, on the inequalities concerning the polar derivative of a polynomial, Filomate, 267-274, 2018. **(Scopus, SCI).**
2. Shah Lubna Wali and Abdul Liman, Integral estimates for a class Bn of operators, Stud. Univ. Babe ̧s-Bolyai Math. 63(2018), No. 2, 175–188. **(Scopus, SCI).**
3. Idrees Qasim, Abdul Liman and Tawheeda Rasool, Number of zeros of a polynomial in a disk , Journal of Mathematics and Applications, 41: 181-194, Nov., 2018.
4. Idrees Qasim, A. Liman, An integral Mean Estimate  For the Polar Derivative of a Polynomial whose zeros are within a Circle, IJARSE, 2018, **07**(10), 232-237.
5. Idrees Qasim, Abdul Liman and Tawheeda Rasool , Location of Zeros of Lacunary-Type Polynomials, JMA, 41: 171-180, 2018. **(SCI)**
6. Irshad Ahmad and Ab. Liman, Inequalities pertaining to rational functions with prescribed poles, Filomat 31:5 (2017), 1149-1165, DOI 10.2298/FIL1705149A. **(Scopus, SCI).**
7. Irshad Ahmad and Ab. Liman, on the inequalities concerning the polar derivative of a polynomial, Thai Journal of Mathematics, 1686-0209, 2018. **(Scopus, SCI)**
8. Irshad Ahmad and Ab. Liman, WM Shah, on an integral estimate concerning the polar derivative of a polynomial with restricted zeros, Filomate, 465-472, 2019-03-26. **(Scopus, SCI).**
9. Shah Lubna Wali and Abdul Liman, Refinement of some polynomial inequalities with restricted zeros, Journal of Analysis, DOI; 10.1007/s41478.017.0057-2, October, 2017. **(SCI).**

**PAPER PRESENTATION IN CONFERENCES: 22**

Presented a paper in 3rd International conference on Mathematics and Computing ICMC 2017, January 17-21, 2017, Haldia Institute of Technology, Haldia, West Bengal, India.

**BOOKS PUBLISHED**

**1.** Mathematics for P.G. Entrance published by LAP Germany, ISSN 6135843710, Vol. I, 01-01-2018.

**2.** Mathematics for P.G. Entrance published by LAP Germany, ISSN 6137340872, Vol. II, 29-01-2018.

**Professor Neyaz Ahmad**

Department of Mathematics

National Institute of Technology

Srinagar Kashmir

**Field of Specialization: Wavelet Analysis**

**Ph.D Awarded:**

1. Mr Ishtaq Ahmad, Uncertainty Principle and Frames, 2018

2. Mr. Owais Ahmad, A study of Wavelet and Gabor Frames on Local fields, 2018

Research Publications:

1. **Some New Inequalities for Wavelet Frames On local** Fields (With F. A. Shah & Owais Ahmad), Analysis In Theory And Applications, Vol. 33, No. 2 (2017), PP 134-148. ( SCI, Zentraballt & Google Scholar)

**2. a-inner product on local fields of positive characteristic,** (With Ishtaq Ahmad), Journal of non- linear analysis and applications 2 (2) (2017). (Zentraballt & Google Scholar)

3. **Orthogonal Gabor system on local fields**, (With Owais Ahmad), Filomat, 31 (16), (2017), 5193-5201. (SCI)

**4. Multigenerator Gabor Frames on local field**s, (With Owais Ahmad) Facta Universtatis, Ser., Math. And informat., 33 (2) (2018). (SCI)

5. **Non-uniform wavelet frames on local fields,** (With Owais Ahmad) Jordan Journal of Math. And Stat. Vol.11 (1), 2018, 51-67. (Scopus, Accepted)

6. **Gabor Frames on Non-Archimedean fields,** (with Owais Ahmad & F A Shah) International Journal of Geometrical Methods in Modern Physics, Vol. 15, 2018, 1850079 (17 pages) (SCI).

7. **On Characterization of Non-uniform tight wavelet frames on local fields (**With Owais Ahmad), Analysis in theory and Applications, Vol.34. No. 2, 2018, 135-146.

8. On **Characterization of Gabor Frames on Local fields**, (with Owais Ahmad) Journal of Non- linear Functional analysis and Applications 2018 No. 2 (2018) 1-8.

**RESEARCH PROJECT:**

Working on Major Research Project entitled Summability and Wavelet Analysis sponsored by DST- SERB, GOI Vide No. SR/S4/MS: 818/13

**INVITED TALKS:**

1. Delivered an invited talk on **“Bounds for Uncertainty Principle” in an International workshop on Wavelets, Frames and Applications-III held at Department of Mathematics, Kirori Mal College, University of Delhi (14th-20th Dec. 2017)**

**2.** Delivered an invited talk on **“Wavelets: Present, Past and Future” in an National**

**conference on Recent Trends and Innovations in Pure and Applied Mathematics held**

**at DAV College Jalandhar (23 - 24 Feb. 2018).**

**Dr.Tanweer Jalal**

**De**partment of Mathematics

National Institute of Technology

Srinagar Kashmir

**Publications of Dr. Tanweer Jalal 2017-2018**

1. Tanweer Jalal, Some new Lacunary sequence spaces of Invariant means defined by

Muselik-Orlicz functions on n-normed space, IJPAM 119(2), 1-11, 2018. (Scopus)

2. Tanweer Jalal , A note on fuzzy multi-ordered difference sequence spaces, Filomat

32(8), 2018. (To APPEAR) (SCI&Scopus)

3. Tanweer Jalal & Ishfaq Ahmad Malik , Some new triple sequence spaces over n-normed

space, Proyecciones Jour. Math., 37(3) , 547-564, 2018. (Scopus)

**Conferences Attended**

1. 2nd International conference on Modern Mathematical Methods and High performance

Computing in Science and Technology (M3HPCST-2018) January 4-6, 2018.

IPEC Ghaziabad.

2. Ist International conference on New Frontiers in Engineering, Science and Technology

(NFEST-2018) January 8-12,2018. DTU, Delhi.

II. **Sponsored Projects:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No** | **Title of the Project** | **Investigator** | **Sponsoring Organisation** | **Amount(in Rs)** | **Starting year** |
| 1. | Summability and Wavelet Analysis | Prof. Neyaz Ahmad Sheikh | DST-SERB | 11, 56,560/‐ | 2014 |

**III. Ongoing Doctoral Programme:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Topic** | **Investigator** | **Supervisor(s)** | **Degree Awarded** |
| 1. | A study of wavelet and Gabor frames on local fileds | Dr. Owais Ahmad | Prof. Neyaz Ahmad Sheikh | 12/02/2018 |
| 2. | Geometry of Meromorphic functions and Applications | Dr. Lubna Wali Shah | Prof. Abdul Liman | 03/01/2018 |
| 3. | Uncertainty principle and frames | Dr. Istiyaq Ahmad | Prof. Neyaz Ahmad Sheikh | Ongoing |
| 4. | Growth, Inequalities and distribution of zeros of polynomials. | Mr. Irfan Ahmad faiq | Prof. Abdul Liman | Ongoing |
| 6. | Mesures of non-compactness in Banach spaces | Mr. Ishfaq Ahmad | Dr. Tanweer Jalal | Ongoing |

**List of Laboratotries**:

|  |  |
| --- | --- |
| 01 | Computer Lab with genuine mathematical softwares. |

**4.1.10. DEPARTMENT OF PHYSICS**

**Head: Dr. M. Ikram**

**Introduction**

The Department of Physics was established in 1960 and since then it remained actively engaged in imparting the instructions at U.G. level in addition of achieving higher standards in the field of research by guiding M.Phil/Ph.D programs and other sponsored research projects.

It offers two semester compulsory course of basic physics so necessary for engineering students. Besides, the Department offers Electromagnetic Fields and waves, Electronic Devices to the 5th semester (Electronics and Communication) students and Electromagnetic Field and Waves to the 3rd semester (Electrical) students. Besides, the Department has the expertise for giving elective courses, for students of the Civil, Electrical , Mechanical and Metallurgical Engineering Departments.

The Institute acquired the status of National Institute of Technology in August 2003. Since then, the Department of Physics remained very active in research and other academic activities. Till date more than 45 scholars have been awarded the degree of M. Phil/Ph. D. More than 500 research publications in the national and International Journals of repute have been published. Many research projects have been successfully completed and many are running in the Department. The Department is presently very active in research in different fields like Studies of Ionospheric and Magnetospheric Plasma, Material Science, Nuclear Physics, Solid State Physics, Photonics, Renewable sources of energy and Nano-science and Technology. At present 8 research scholars are working in various fields for their M. Phil and Ph. D Degree.

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Staff** | | | |
| Head | Dr M Ikram | | |
| Faculties |  | | |
| Professor | Associate Prof | Assistant Prof | Contract |
| Nil | Dr. M. Ikram | Dr PA Ganai | Dr Shabir Bhat |
|  | Dr. S.Rubab | Dr MA Shah | Dr Wahid Dar |
|  | Dr. G R Khan |  | Dr Jahangir Sheikh |

**I. Papers published by the staff:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name** | **Title** | **Journal** | **date** |
| 1 | S. Rubab | 'Enhanced cycling properties and better rate capabilities of Al-doped LiMn2O4 nanorods and nanospheres, | Materials Research Express | 2017 |
| 2 | S. Rubab | 'Electronic Structure, Optical and Transport Properties of Double Perovskite La2NbMnO6: A Theoretical Understanding from DFT Calculations' | Journal of Electronic Materials | 2018 |
| 3 | M A Shah | Enhanced photo-electrochemical potential of Fe2O3 modified TiO2 nanotube array with multiple legs | Journal of Materials Science: Materials in Electronics | 2017 |
| 4 | M A Shah | Augmented Photo electro chemical Efficiency of ZnO/TiO2 Nanotube Heterostructures | Journal of Electronic Materials | 2017 |
| 5 | M A Shah | Fabrication mechanism of compact TiO2 nanotubes and their photo-electrochemical ability | Materials Res. Express (IOP) | 2017 |
| 6 | M A Shah | Influence of Precursor Concentration on Structural, Morphological and  Optical Properties of Hematite (α-Fe2O3) Nanoparticles | Current Nanomaterials | 2017 |
| 7 | M A Shah | [Enhanced Structural and Electrochemical Properties of LiMn2O4 Nanocubes](https://link.springer.com/article/10.1007/s11664-016-4741-9) | Journal of Electronic Materials (Springer | 2017 |
| 8 | M A Shah | Enhanced cycling properties and better rate capabilities of Al-doped LiMn2O4 nanorods and nanospheres. | Materials Res. Express (IOP) | 2017 |
| 9 | M A Shah | A comparative investigation of mechanical and tribological properties of multilayered CVD-diamond coatings | Advanced Materials Letters, 8 (2017) | 2017 |
| 10 | M A Shah | Enhancement in Tribological and Mechanical Properties of Cemented Tungsten Carbide Substrates using CVDdiamond Coatings | Tribology in Industry | 2017 |
| 11 | M A Shah | Deposition of dual-layer coating on Ti6Al4V | Surface Topography: Metrology and Properties, IOP | 2017 |
| 12 | M A Shah | Tribological Performance of Titanium Alloy Ti–6Al–4V via CVD–diamond Coatings | Journal of Super-hard Materials, Springer | 2017 |
| 13 | M. Ikram | Electronic excitation-induced structural, optical, and magnetic properties of Ni- doped HoFeO3 thin films” | Applied Physics A | 2017 |
| 14 | M. Ikram | Effect of Doping on Structural and Dielectric Properties of Barium Hexaferrite” | Science and Engineering Applications | 2017 |
| 15 | M. Ikram | Ion Beam Induced Ferromagnetism in Ca doped LaMnO3Tthin Films Grown on Si (100) | Radiation Effects and Defects in Solids | 2017 |
| 16 | PA Ganai | A Study of Gaugeon Formalism for QED in Lorentz Violating BackgroundCommun. | Theor. Phys. 69 | 2018 |
| 17 | PA Ganai | Quasiparticle and ?-band structures in Dy 156 | Physical Review C 97 | 2018 |
| 18 | PA Ganai | Quantum gauge freedom in the Lorentz violating background | International Journal of Geometric Methods in Modern Physics 15 (01) | 2018 |
| 19 | PA Ganai | Spontaneous symmetry breaking in Lorentz violating background | International Journal of Geometric Methods in Modern …, | 2018 |
| 20 | PA Ganai | A study of 3-form gauge theories in the Lorentz violating Background | International Journal of Geometric Methods in Modern Physics | 2018 |
| 21 | PA Ganai | Chern–Simons theory in aether superspace | Modern Physics Letters A 32 | 2017 |
| 22 | PA Ganai | Intrinsic properties of high-spin band structures in triaxial nuclei i | Nuclear Physics A | 2017 |
| 23 | PA Ganai | Spontaneous symmetry breaking in Lorentz violating background | International Journal of Geometric Methods in Modern Physics | 2017 |
| 24 | PA Ganai | Non-local deformation of a supersymmetric field theory | The European Physical Journal C 77 (9) | 2017 |
| 25 | PA Ganai | Boundary effects in super-Yang–Mills theory | The European Physical Journal C 77 (5) | 2017 |
| 26 | G R khan | Wireless Resource Virtualization in Device-toDevice Communication for 5G Cellular Networks, | International Journal of Electronics & Communication Engineering & Technology (IJECET), 9 | 2018 |
| 27 | G R khan | Effect of Quantum Confinement on Thermoelectric Properties of Vanadium Dioxide Nanofilms, | Applied Physics A, 123 | 2017 |
| 28 | G R khan | Room Temperature Tunability of Mo-doped VO2 Thin Films across Semiconductor to Metal Phase Transition, | Thin Solid Films (U.K.), 625 | 2017 |
| 29 | G R khan | Gold-Gilded Zinc Oxide NanoDiamonds: Plasmonic and Morphological Effects, | International Journal of Nanoscience,16 | 2017 |

**II. Programme attended by staff:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name** | **Name of Programme** | **Institution where Attended** | **Date** |
| 1 | S. Rubab | Training Program on Computer Interfaced Science Experiments | IUAC New Delhi | 2017 |
| 2 | M A Shah | National Workshop on Science & Technology Policy | NISCAIR- New Delhi | 2018 |

**III. Programme conducted:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Programme** | **Date** | **Coordinators** | **Sponsors** |
| 1 | Inspire | 26-30 Dec 2017 | MA Shah | DST |

**IV. Sponsored Projects:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Title** | **Investigators** | **sponsors** | **Amount** | **Year (start)** |
| 1 | Growth & Characterization of Nanomaterials through Green approaches | M A Shah | Nano-Mission  DST, New Delhi | 200.00 Lakhs | 2015 |
| 2 | Effect of Synchrotron Radiation on the Photoemission Spectroscopy (PES) Studies of Double Perovskite. | M Ikram | UGC-DAE- Consortium for Scientific Research Indore | 7.80 lacs | 2015 |
| 3 | Structural, Magnetic, Optical and Dielectric Properties of Double Layer Perovskite Oxides | M Ikram | CSIR, New Delhi | 13.0 Lacs | 2018 |

**V. Ongoing Doctoral programme:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Topic | Investigator | Supervisor | Degree Awarded |
| 1 | Synthesis and characterization of Metal Oxide nanostructures and their Energy applications | Shabir Akhoon | S. Rubab & MA Shah | Yes |
| 2 | Design of domestic solar dryer | Sebiha Rahman | S.Rubab | No |
| 3 | Effect of hands on demonstration on learning outcome | Syed Ishtiyaq | S.Rubab | No |
| 4 | Cu, CuO Nanomaterials: Properties and Applications | Mr. Anil Mani | Dr. M A Shah | No |
| 5 | Sensing Properties of Al2O3 nanostructures | Mr. Mudasir | Dr. M A Shah & P A Ganai | No |
| 6 | Optical and magnetic properties of Fe2O3 nanopores | Jaffar Faruq | Dr. M A Shah | No |
| 7 | Bi, Bi2O3/ZnO nanostructures: Properties and applications | A. Mateen | Dr. M A Shah | No |

**VI. Purchase made:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Item** | **Date of purchase** | **Quantity** | **Annual purchase** |
|  | X-Ray Diffractometer | 2018 | 1 |  |
|  | UV Vis Spectrometer | 2018 | 2 |  |
|  | Microwave Synthesis Workstation | 2018 | 3 |  |

**List of Laboratories**

|  |  |
| --- | --- |
| 1 | General Physics lab- B.Tech First Semester |
| 2 | General Physics lab- B.Tech Second Semester |
| 3 | Advanced optics lab |
| 4 | Electronics lab |
| 5 | Solid State Physics Lab |
| 6 | Materials Science lab |
| 7 | Characterization lab |
| 8 | Computation lab |
| 9 | Renewable Energy Lab |
| 10 | Synthesis lab |
| 11 | XRD lab |
| 12 | Spectroscopy Lab |

**4.1.11. DEPARTMENT OF CHEMISTRY**

**Head: Dr. Tabassum Ara**

**Introduction**

The Department of Chemistry was established in 1960 and has been headed by the renowned personalities like Prof. R. P. Jeerath,, Dr. Ram Murthi, Dr. Shakti Rais Ahmad, and Dr. A. K. Choudhry. About fifteen Ph. Ds and 30 M. Phils have been produced by the Department till date. The faculty members of the Department have published many scientific papers and reviews in National and International journals of repute. Research, in the areas of Physical, Organic, Inorganic and Environmental Chemistry, are being carried out in the Department.

**Faculty**

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Staff:** | | | |
| **Head** | **Dr. Tabassum Ara** | | |
| **Faculties:** | | | |
| **Professor** | **Associate Professor** | **Assistant Professor** | **Lecturer (on contract) during the period** |
| **-** | **Dr. S. A. Shah** | **Dr. J. A. Banday** | **Dr. Rafia Bashir** |
| **-** | **Dr. Tabassum Ara** | **Dr. Hamada-Tun-Nisa** | **Dr. Rohi** |
| **-** | **Dr. Kowsar Majid** | **-** | **Dr. Wilayat** |

**I. Papers Published by the Staff ( National / International) during the period of 01-04-2017 to 31- 03-2018:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the Staff member** | **Title of the Paper** | **Conference/ Journal, etc. where Published** | **Date of Publishment** |
| **01.** | **Dr. S. A. Shah** | 1. “Studies on Physico-chemical Parameters of Water and Sediments of Dal Lake” | *Elixir Pollution* | **2017**, 103, 45573-45575 |
| **02.** | **Tabassum Ara** | 1. Study of Thermal, Electrical, and Photocatalytic Activities of Iron 2 Complex Doped Polypyrrole and Polythiophene Nanocomposites..  2. Ultrasound assisted one pot expeditious synthesis of new pyrido[2,3d]pyrimidine analogues using mild and inexpensive 4- dimethylaminopyridine (DMAP) catalyst  3. Proficient synthesis of bioactive annulated pyrimidine Derivatives: A review.    4. Chemical constituents of *Salvia sclarea* from Kashmir (India  5. Synthesis and antimicrobial activity of triazolyl analogs of diosgenin  6. Synthesis and biological evaluation of novel 3-O-tethered triazoles of diosgenin as potent antiproliferative agents. | *Industrial And Engineering Chemistry Research*  Beni-Suef UniversityJournal of Basic and Applied Sciences  *Journal of Taibah University for Science*  *Adv. Biomed. Pharma.*  The Journal of Phytopharmacology  *Steroids*: 1–8. | DOI: 10.1021/acs.iecr.7b00167,**2017**.  Accepted **16 April 2017**  PII: S1658-3655(17)30066-3  DOI: http://dx.doi.org/doi:10.1016/j.jtusci.2017.05.005 Reference: JTUSCI 389  **May -2017**  4:2 (2017) 44-54  sept.2017; 6(4): 227-233  2017 |
| **03.** | **Dr. J. A. Banday** |  |  |  |
| **04.** | **Dr. Hamida Tun Nisa Chishti** | **1.**  **H. Chisti**,  Comparative characterization of water quality of Brari- Nambal Lagoon of Dal lake before and after kashmir floods.  **2.**  **H. Chisti**,  Heavy metal sequestration from contaminated water: A review.  3.  **Hamida Tun Nisa Chisti**,  Advanced Water Treatment Systems and Their Applications.  4.  **Hamida Tun Nisa Chisti**, Pesticidal Pollution | Current Environmntal Engineering  Journal of Environmntal Science and Engineering  **IGI**  **IGI** | 4(2), 121-129, 2017.  2018, Volume 9, Issue 8, Page 2345-2355.  1-18, 2018  155-176, 2018 |

**II. Programmes Attended by the Staff (Conferences/ Courses/ Trainings):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the Staff member** | **Name of the Programme attended** | **Institute where attended** | **Date** |
| **01.** | **Dr. S. A. Shah** |  |  |  |
| **02.** | **Dr. Tabassum Ara** | 1. Participated in one week National Level Workshop on "Connecting people to Nature  **2.** Paper Presented entitled, “One pot and metal free protocol for the synthesis of bioactive natural product based phosphoramidates ’ in the  **International Conference** on the “Recent innovations in science, agriculture, engineering and management”  3. Paper Presented entitled " Phytochemical analysis and Anti-cancer evaluation of natural products from Artemisia Laciniata " in the National Seminar on Himalayan Biodiversity, charaterisation and Bioprospection for sustainable utilization , | Department of chemical engineering in collaboration with the Institution of Engineers , National Institute of Technology ,Srinagar  organized by university college of computer applications Guru Kashi University ,Punjab, India  organised by centre for Kashmir Himalayan Biodiversity, University of Kashmir , Srinagar , Kashmir in collaboration with UGC,DST, And Deptt of biotechnology (DBT) , New Delhi, | " from 25th to 29th sept 2017 organized  on 20thNovember  **2017** page 44 in abstract book  on 18th -19th September ,2017. |
| **03.** | **Dr. K. Majid** | Surfactant assisted synthesis of Polythiophene/Ni0.5Zn0.5Fe2-xCexO4 ferrite composites: Study of structural, dielectric and magnetic properties for EMI shielding applications | PCCP  (RSC) | 22 March, 2017 |
| **04.** | **Dr. J. A. Banday** | Subramani Kandhasamy, Sathiamurthi Perumal, Balaraman Madhan, Narayanan Umamaheswari, **Javid A. Banday**, Paramasivan T. Perumal, Vichangal Pridiuldi Santhanakrishnan. “Fabrication of Collagen-Coated Ostholamide Electrospun Nanofiber Scaffold for Wound Healing”. 10.1021/acsami.6b16488 | *ACS- Applied materials and Interfaces*, | **2017**,9 (10), 8556–8568. DOI: |
| **05.** | **Dr. Hamida Tun Nisa Chishti** | 1.  One week national level workshop on connecting people to nature organized by Department of Chemical Engineering | NIT, Srinagar | September 25-29, 2017 |

**III. Sponsored Projects :**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Title of the Project** | **Investigator(s)** | **Sponsoring**  **Organization** | **Amount (in Rs)** | **Starting Year** |
| **01.** | **Development of Nanocomposite Sensors for heavy metal ions** | **Dr. Hamida Tun Nisa Chisti (Mentor)** | **SERB-DST** | **19,20,000/-** | **2017** |

**List of Laboratories :**

|  |  |  |  |
| --- | --- | --- | --- |
| **01.** | **Junior Chemistry Lab.** | **02.** | **Sr. Chemistry Lab.** |
| **03.** | **Inorganic Chemistry Lab.** | **04.** | **Environmental Chemistry Lab.** |
| **05.** | **Organic Chemistry Lab.** | **06.** | **Physical Chemistry Lab.** |
| **07.** | **Natural Product Chemistry Lab.** |  |  |

**4.1.12. DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES**

**Head: Mir Mukhtar Ahmad**

**Introduction**

**INTRODUCTION**

**1.0. Education System**

The Department of Humanities and Social Sciences, which is one of the oldest departments of the institute, is contributing to the academics by offering various courses in English, Management, Economics and Entrepreneurship at B.Tech level and Research Methodology and Communication Skills at M.Tech level. The students of B. Tech & M. Tech are introduced to the basic concepts and advanced studies in the above mentioned subjects. As these courses equip the engineering students with the professional skills, the department makes every effort to keep these courses updated. It tries to amalgamate the field of engineering and the field of management by equipping students with the technical expertise and leadership skills as are required to advance their career in the fast-paced world of competition.

The subjects like Management and Economics play an excellent role in developing the managerial and professional capabilities of the students who have a potential market both in public and private companies of India and foreign countries. The courses are intended to enhance their employment opportunities in the growing corporate sector and  bring together the technological problem-solving savvy of engineering and the organizational, administrative, and planning abilities of management in order to oversee complex enterprises from conception to completion. Apart from it, the Department has many programs of higher learning in mind but the non availability of staff is the main impediment. For some professional courses like MBA and Diploma in Entrepreneurship, the department is making efforts both in terms of staff and infrastructure. The department is also planning to arrange some guest lecturers for the personality development of the students as per their demand. The department aims to promote student success in the Core Curriculum through advisement, support, and enrichment programs.

The Department has already submitted a proposal for the establishment of a Language and a Management Lab for improving the linguistic proficiency and the managerial skills of the students in general and academically weak, SC/ST & backward students in particular. Due to the continuing problem of space, the development of Language and Management lab could not be taken up. However, forty computers have been provided by the institute for the same which shall be installed once the infrastructure for the lab is ready.

**Faculty**

1. **Academic Staff:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Head | | Mir Mukhtar Ahmad, Associate Professor. | | |
| Faculities: | | | | |
| Professor | Associate Professor | | Assistant Professor | Lecturer (on contract)during the period |
| Dr. M.F.Lala | Mir Mukhtar Ahmad | | 1.Dr. Tahir Ahmad Wani  2.Dr. Jaya Shrivastava | 1.Dr. Rasak Annayat  2.Dr. Fouzia Jan  3. Dr. Shakeel Ah.Sofi |

I. **Papers Published by the Staff (National/International) during the Period of 01- 04-2017 to 31-03-2018.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. No. | Name of the Staff members. | Title of the papers. | Conference/Journal etc, where published. | Date of publish. |
| 01. | Dr.Rasak Annayat | Learning English through Literature | Meethaq | March 2017 |

II. **Programme attended by the Staff (Conferences/Courses/Trainings):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr.No. | Name of the Staff members | Name of the programme attended. | Institute where attended | Date. |
| 01. | Dr. Fouzia Jan | National Conference on Entrepreneurship: Opportunities and Challenges in the Contemporary works | University of Kashmir. | March, 2017 |

III. **Ongoing Doctoral Programme:-**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr.No. | Topic | Investigator | Supervisor(s) | Degree awarded |
| 01. | Impact of service quality on patient satisfaction in Kashmir Hospitals. | Ather Sidiq Zargar | Dr. M. F. Lala | Not Yet |
| 02 | Impact of Select Entrepreneurial Competencies and Environmental Factors on Entrepreneurial success: An Empirical Study of Entrepreneurs in Kashmir. | Mohd Shiob Shah | Dr. M. F. Lala | Not Yet |

**Any other activity/achievement with details:**

The Department is actively involved in research activities. Presently two research scholars are on the rolls of the department and are pursuing their research activities rigorously. The department has also devise3d a comprehensive course line for remedial coaching classes where the students with weak language and communication skills are trained to improve their speaking and writing skills. A set of well-designed tutorial pack is prepared under the supervision of the senior faculty and the same is administered to those students with proper instructions, supervision and guidance. To achieve this objective the department is in the process of establishing a language lab. For which preliminary work has already started and some equipment has been provided by the institution.

**4.2. CENTRES**

**4.2.1. WATER RESOURCES MANAGEMENT CENTRE**

**Head of the Centre: Prof. M. A. LONE**

**1. Introduction**

WRMC was established by the Ministry of Education, Govt .of India in 1983 under new plan scheme for creation of infrastructure in the areas of emerging technology. The objectives of the Center are:

i. To undertake work on specific technological problems of relevance and importance in Water Resources Management and to make fundamental contribution to the advancement of technology.

ii. To undertake Research and Development work of a high order by mobilizing inter- disciplinary and inter- institutional collaboration.

iii. To act as a resource center for the creation of knowledge and for the collection and dissemination of Information on the subject .

iv. To undertake research works in the field of Water Resources Engineering to meet the requirements of industry, Research and Development establishments, irrigation and other water resources management agencies.

1. **Facilities Available:**

**i) Library Facilities:**

Fair amount of literature on topics related to Water Resources Engineering and other related topics is available in the main library of the Institute. Besides that a good collection of books, joumals ard reports is available in the library of Water Resources Management Centre.

**ii) Computational facilities:**

The Centre has also a Mini-computer Centre with necessary computational facilities.

1. **Laboratory Facilities:**

*a) Hydraulics/Fluid Mechanics Lab.*

Hydraulics /Fluid Mechanics laboratory which has been brought up to the higher standards of research and development is not only catering the requirements of the Centre but also meets the requirements of departments of Civil Engineering and Mechanical Engineering. It has got almost all necessary equipment and is being modernised with the latest equipments/instruments.

*b) Hydrobiology lab:*

This Lab. is being set up under the approval of the MHRD and is at the verge of its completion. The lab. after its completion will be fully equipped with the latest water and sewage testing equipments.

*c) Hydrometeorological Observatory:*

This observatory has also been set –up under one more scheme of MHRD and has a facility of recording all the important Hydro-meteorological parameters.

**Research AndDevelopmentActivities**

A Chair Professor in Water Resources , entitled, Sheikhul Alam Sheikh Nuruddin Chair for Water Resources , has been established by the Ministry of Water Resources (MoWR) in the Centre under an agreement between the MoWR and the Institute, in 2008.

The main objective of the Chair is to carry out studies on water resources with special emphasis on assessment of effect of climate change on it and adaptation strategies in respect of planning, design and management of water resources systems of particularly Indus Basin. An important activity related to the Chair is the transfer of technology to CWC and other organizations of MOWR/GOI. Appointment of the Chair Professor was advertised but the selected person did not join and has been re-advertised.

**Future Plans**

The Centre has been nominated to act as Nodal Centre for Basin-wise studies with respect to impact of climate change on Water Resources by the MoWR , and is planning to activity participate in the study with other leading Institutes.

The Centre is planning to upgrade its Hydro-meteorological Observatory with the latest available equipments and instrumentation so that the data collection is more authentic and accurate.

**4.2.2. MAINTENANCE ENGINEERING CENTRE**

**Introduction**

Maintenance Engineering Centre was originally set up during the years 1988 and 1989 in the former Regional Engineering College, Srinagar, (now National Institute of Technology, Srinagar) under Indo – Italian Friendship Program.

1. **Technical fields covered**

Existing equipment was purchased according to a survey performed in the mid ‘80ies, which considered modernization of the industrial and tourist infrastructure.

In particular, reference activities concerned: production of ironmongery parts, automation and packaging of fruit and vegetable products, automation of canning and bottling in the food-farming industry, maintenance of ropeways and ski-lifts for ski resorts, maintenance and improvement of silk looms, woodworking machinery, brick production machinery, general road transportation. Moreover, general mechanical maintenance capabilities were to be improved, with reference to local needs in mechanical construction: this put forward consideration of welding technologies and non-destructive testing. The following fields were selected for development:

1. Wear and Lubrication
2. Noise and Vibration
3. Non – destructive Testing
4. Welding and Plasma coating
5. Data acquisition and elaboration
6. **Facilities Presently Available:**

Keeping in view the above selected fields, following facilities are presently available in the centre:

1. CP30D Programmable Logic Controller.
2. MIG welding equipment - one set.
3. TIG welding equipment - one set.
4. Arc welding equipment – 2 sets.
5. Ultrasonic (Gildran MG12) flaw detector with automatic monitor.
6. Wear testing machine pin ring.
7. Wear testing machine pin disk.
8. Automatic Hardness meter.
9. Pneumatic control model fitted with electrical control.
10. Pneumatic control with double acting cylinders..
11. Pneumatic control fitted with sel1, sel2 and sel3.
12. H128D Water/ Oil Multi Pumps Test Bench.

These facilities are ready for imparting training to students and field engineers as well as doing consultancy, research and development work.

1. **Activities during the reporting year**

In view of the shortage of the staff the activities of the Centre remained limited to the Dissertation work of the M.Tech Students. However efforts are being made to make the staff available for taking the full advantage of the facilities developed.

**4.2.3. COMPUTER SERVICES CENTRE**

Head of the Centre: Dr. Shaima Qureshi

The institution has long back absorbed itself into the Computer culture and its effects can be well perceived in all over the campus. The Computer Services Centre developed under the scheme of Centre of Excellence aims to provide centralized computer/Inter-net work facilities to the teaching community, students including scholars, administrative staff and others. It has been providing latest and sophisticated computer service to all the departments and the sections.

All the Institute departments, sections and hostels are connected vide a campus wide network which covers almost all the Institute. At present Institute has two links one is 512 Kbps provided by Ernet India and other by BSNL (1Gbps internet connectivity).

The Centre has extended the facilities of internet to hostels including girls hostels through WiFi systems.

**4.2.4 Central Research Facilities Centre**

**Head of the Centre: Prof. M. F. Wani, Professor, Mechanical Engg. Dept.**

This Centre has been established with a vision to provide high end state of the art equipments like SEM, XRD, EDX etc. at the centralized place and to cater to research requirement of multi disciplinary nature. The centre has already made the SEM apparatus functional for use by the faculty and the research scholars. The purchase of equipments like XRD, EDX are in final stage of procurement. The Centre is run under the supervision of faculty group derived from different departments of the institute.

**4.2.5 Innovation, Incubation and Entrepreneurship Development Centre :**

**Head of the Centre: Er. Saad Pervaiz, Associate Professor, Dept. of Mechanical Engineeirng**

The Institute had since long established an Industry Institute Interaction Cell and Entrepreneurship Cell. The main object of these Cells was to share its experience with the Industry and to utilize the human resources and all other resources available at the Institute effectively with the assistance of participating Industries.

In view of the prevailing scenario for encouraging innovation and enterprise, it was decided to establish a centre where activities related to innovation, incubation and entrepreneurship could be undertaken in a coordinated manner on modern approaches. Accordingly these two cells were merged and renamed centre under the title “ Innovation, Incubation and Entrepreneurship Development Centre” was established due approval of the Competent Authority. The Centre has already started extending its technical support to young Innovators and has held number of interactions with the local industrialists. The Centre is in the process of preparation of a DPR for establishing a major innovation centre for the benefit of the region.

An advisory committee has been constituted having an Interdisciplinary representation to guide the activities of the Centre.

**5.0. STUDENTS' WELFARE**

* 1. **Concessions provided to students**

The SC/ST students are provided concessions in tuition fee as per Government of India Guidelines.

**5.2 Scholarships**

The Institute has been providing all sorts of financial assistance in terms of scholarships and aids to the deserving admitted students. Students admitted under reserved categories having the good academic record are eligible for post matric scholarship. Physically handicapped Students are eligible for national Scholarship on the basis of their academic performance.

The Institute offers merit scholarship to about 25% of the students based on the performanceof their 1st semester examination.

Besides above MOMA scholarships are also available for the meritorious students. The Institute also provides aid from students welfare fund to those of the students who are economically in adverse condition and not covered by other scholarships.

Various scholarships availed by the students of the institute areas under:

|  |  |
| --- | --- |
| 1 | Ph.D. Scholarships |
| 2. | M. Tech (GATE) Scholarship |
| 3. | Aid from Students Welfare Fund |
| 4. | Post Matric Scholarship |
| 5. | H & W Scholarship |
| 6. | Merit/Merit-cum means Scholarship (MOMA) |
| 7. | S.T. Scholarships |
| 8. | S.C. Scholarship |
| 9. | Scholarships of Social Welfare Departments of different states and other agencies |
| 10 | Directorate of Technical Education, Chattisgarh scholarship |
| 11 | Labour Commissioner J&K scholarships |

**6.0. Welfare Schemes for staff:**

I) Staff welfare fund: During this period no loan under this fund were provided to any staff member.

II) Benevolent Fund :During the period no financial assistance were provided to any staff member.

The funds under these two schemes are based on contributions made by the Institute staff towards these funds as well as some contribution out of the revenue generated through consultancies. The two funds are managed by duly constituted governing body and committee as per well laid down bylaws.

**7.0. CENTRALIZED SERVICES**

The Institute has a number of Centralised Services which facilitate the carrying out of various activities of the students and the staff effectively. A brief description of these facilities is given below**:**

**7.1. TRAINING AND PLACEMENTS**

The Industrial Training and placement are the two important issues of the students which are being taken care of by a well established “Training and Placement “(T&P) Department of this Institute. The T&P Department is usually headed by a senior faculty member and assisted by some administrative staff and the student’s representatives from the different departments.

The students have to essentially undergo a practical training period of six to eight weeks at 5th/7th semester level in projects and industry within or outside the state in Jan-Feb each year, when the institute observes winter vacations. This training plays a vital role in exposing the students to actual industrial environment and in broadening their professional outlook. Thus, this training increases the employability opportunities of the students.

The T & P Department is making every effort to introduce the institute to more and more companies and organizations concerned for better placement of the students. The institute has been able to attract a good number of relevant reputed companies and organizations for on campus selection of the students. Mock test, counseling and seminars are carried out for the students to train them for better performance in their interviews for placements. In this context a good number of reputed companies have recorded their appreciations for co-ordination of departments and students representative’s efforts in conducting on campus placements. The Endeavour of the T & P Department is to attain cent percent placement. The students from different departments are also involved in various relevant activities of the training and Placement like quizs, mock tests, mock group discussion etc.

The details of the students of the institute placed in different organizations during the year 2017-18 are given in the following table:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.NO.** | **NAME OF COMPANY VISITED** | **CIVIL** | **ELE** | **CSE** | **MECH** | **ECE** | **CHEM** | **METTA** | **IT** | **TOTAL** | **CTC/Annum** | **Avg. Package** |
| 1 | **ADOBE SYSTEMS** | - | - | - | - | - | - | - | - | **-** | - |  |
| 2 | **SHEROES** | - | - | - | - | - | - | - | - | **-** | - |  |
| 3 | **NUCLEUS** | - | - | - | - | - | - | - | - | **-** | - |  |
| 4 | **LG SOFT** | - | - | - | - | - | - | - | - | **-** | - |  |
| 5 | **SAMSUNG (R&D)** | - | - | - | - | - | - | - | - | **-** | - |  |
| 6 | **HPCL** | 2 | - | 3 | 3 | - | - | - | 1 | **9** | - |  |
| 7 | **ARTIC INVENT** | - | - | 1 | - | 1 | - | - | - | **2** | - |  |
| 8 | **BLOGVAULT (INTEM)** | - | - | 1 | - | - | - | - | 1 | **2** | 3.0 LPA |  |
| 9 | **ADVERB(Internship)** | - | - | - | 1 | - | - | - | - | **1** | 3.0 LPA |  |
| 10 | **INFOSYS** | 6 | 3 | 11 | 2 | 6 | 3 | 4 | 6 | **41** | 3.2 LPA |  |
| 11 | **TATA PROJECTS** | 1 | 1 | - | 2 | - | - | - | - | **4** | 3.75 LPA |  |
| 12 | **IBM** | - | 6 | 4 | - | 12 | - | - | 6 | **28** | 3.75 LPA |  |
| 13 | **RANKWATCH** | - | - | 1 | - | - | - | - | - | **1** | 3.8 LPA |  |
| 14 | **LNT Infotech** | - | - | 5 | - | 2 | - | - | 8 | **15** | 4.2 LPA |  |
| 15 | **SAGACIOUS RESEARCH** | - | - | 3 | 1 | 2 | - | - | 1 | **7** | 4.25 LPA |  |
| 16 | **JCB** | - | - | - | 1 | - | - | 1 | - | **2** | 4.5 LPA |  |
| 17 | **KEC** | 3 | 3 | - | - | - | - | - | - | **6** | 4.5 LPA |  |
| 18 | **KPIT** | - | 1 | - | - | 3 | - | - | - | **4** | 4.75 LPA |  |
| 19 | **JOHNSON CONTROLS** | - | 1 | - | - | - | - | - | - | **1** | 4.8 LPA |  |
| 20 | **Resonance** | - | - | - |  | 4 | - | - | - | **4** | 4.8 LPA |  |
| 21 | **Virtusa** | - | - | - | - | - | - | - | 1 | **1** | 5.0 LPA |  |
| 22 | **Cummins** | - | - | - | 2 | - | - | - | - | **2** | 5.0 LPA |  |
| 23 | **L&T Contruction** | 11 | 4 | - | 1 | - | - | - | - | **16** | 5.0 LPA |  |
| 24 | **TAT POWER** | - | 1 | - | - | - | - | - | - | **1** | 5.2 LPA |  |
| 25 | **Gray B** | - | - | 1 | - | - | - | - | 1 | **2** | 5.2 LPA |  |
| 26 | **AFCON INFRASTRUCTRE** | 1 | - | - | - | - | - | - | - | **1** | 5.5 LPA |  |
| 27 | **TEK Systems** | - | - | 1 | - | - | - | - | - | **1** | 6.0 LPA |  |
| 28 | **Persistent Systems** | - | - | 1 | - | - | - | - | - | **1** | 6.0 LPA |  |
| 29 | **TATA MOTORS** | - | - | - | 8 | - | - | - | - | **8** | 6.0 LPA |  |
| 30 | **Reliance JIO** | - | - | - | - | - | - | - | 1 | **1** | 6.0 LPA |  |
| 31 | **WIPRO** | 1 | - | 7 | - | 3 | - | 1 | 8 | **20** | 6.0LPA |  |
| 32 | **ZS ASSOCIATES** | - | - | - | 1 | - | 1 | - | 1 | **3** | 6.5 LPA |  |
| 33 | **VEDANTA** | - | 3 | - | 3 | - | 3 | 8 | - | **17** | 7.95 LPA |  |
| 34 | **ENVESTNET YODLEE** | - | - |  | - | - | - | - | 2 | **2** | 8.7 LPA |  |
| 35 | **OIL INDIA** | - | - | - | 2 | - | - | - | - | **2** | 12.00 LPA |  |
| 36 | **IOCL** | 4 | 4 | - | - | - | - | - | - | **8** | 16.49 LPA |  |
| 37 | **GAIL** | 2 | - | - | - | - | - | - | - | **2** | 17.00 LPA |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **TOTAL PLACEMENTS** | **31** | **27** | **39** | **27** | **33** | **7** | **14** | **37** | **215** |  | 5.84 LPA |
|  | **Batch Strength** | 118 | 73 | 59 | 76 | 73 | 64 | 65 | 56 | 584 |  |  |
|  | **Students eligible for Placement** | 88 | 58 | 49 | 60 | 48 | 53 | 46 | 49 | 451 |  |  |
|  | **% age placement** | 32 | 45 | 76 | 40 | 63 | 15 | 30.4 | 73.5 | 48 |  |  |

**7.2. CENTRAL LIBRARY**

The Institute has a Central Library named Library & information Resources Centre to cater to the needs of students, ,faculty, supporting staff and research scholars. The Central library has a separate section for SC/ST students with a stock of about 9898 books issued to them for study in a full semester.

**Resources.** The library which had suffered huge losses due to September 2014 floods took number of steps for making up the losses and books worth around 30 lacs were purchased and a massive renovation is going on.

At present the readers have access to library OPAC and circular section is computerized. Following e-resourcers through INDEST consortium are available online through the Library for the benefit of community in the campus;

**Electronic Resources** **URL**

**ASCE Journals online** [**www.pubs.asce.org/journals/jrns.html**](http://www.pubs.asce.org/journals/jrns.html)

**ASME Journals online** [**www.asme.org/pubs/journals**](http://www.asme.org/pubs/journals)

**IEL online http/ieeexplore.ieee.org**

**India standards internet version**

**Nature** [**www.nature.com**](http://www.nature.com)

**Pro quest science http/www.il.proquest.com/pqdauto**

**Springer verlag** [**www.springlerlink.com**](http://www.springlerlink.com)

**JCCC http/jccc.indest.informindia.co.in**

The library is also connected to IGNOU Educational Programmers through Dish antenna. The students are making use of these educational programmes.

**In addition the library offers the following services:-**

1. **Video view facility**
2. **CAS & SDI services**
3. **Reprographic services**.

**Library Timing.**

9.00 a.m. to 9.00 p.m( During Summer)

9.00 a.m. to 8.00 p.m(During Winter)

**Services to SC/ST students.**

The library has got good collection of some ten thousand books separately meant for SC/ST students. Separate section is maintained for acquisition and processing their material. The books ate issued to the students for one semester. The aim is to help this weaker section of the society.

**1. Purchase Made:**

|  |  |  |  |
| --- | --- | --- | --- |
| S No | Name of Equipment | Date of Purchase | Annual Purchase |
| 1 | Books | 17-06-2017 | Rs 21,047.00 |
| 2 | 10 KVA UPS along with 15 Batteries (Exide) | 09-10-2018 | Rs 1,48,786.00 |
| 3 | Water Purifier | 08-03-2018 | Rs 14,500.00 |
| 4 | Subscription of IEEE-IEL Online | January 2018 | Rs 37,62,754.29 |
| 5 | Subscription of Science Direct online | 17-08-2017 | USD 1,82,374.85 |
| 6 | Computers(DELL) 50 No’s | June 2017 | Received from CPU |

**2. Papers Published By the Staff**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S No | Name of the Staff Member | Title of Paper | Conference/Journal etc.(where publisher) | Date of publication |
|  | N/A | N/A | N/A | N/A |

**3. Programme Attended by the Staff Conferences/Courses/Trainings)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S NO | Name of the Staff Member | Name of the Programme Attended | Institute Where Attended | Date |
| 1 | Mr. Mohammad Farooq(Asstt.Librarian) | Role of Academic Libraries for Excellence in Reasearch | IISER Bhopal | 18-02-2018 |

**Programme Conducted (Conference/Course/Training)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S No | Name of the Programme | Date when Attended | Name of the Coordinators | No. Background of Participants |
| 1. | Author Workshop Conducted by M/S Elsevier | 13-09-2017 | Prof.M S Mir(CLC) | 50 Faculty Members& Research Scholars |

**7.3 Planning & Development Wing**

*The renovation works as well as new works which were carried out by P&D wing during the 2017-18 are as under:*

|  |  |  |
| --- | --- | --- |
| ***S:No.*** | ***Name of work*** | ***Work done cost*** |
| ***1.*** | *Renovation / Face lifting of existing structures of the Institute* |  |
|  | ***(i)*** *Renovation of Library Block* | *Rs. 220.00 lacs* |
| ***(ii)*** *Renovation of Hostel Mess of Indus hostel.* | *Rs. 96.47 lacs* |
| ***(iii)*** *Renovation of Hostel Mess of Chenab hostel.* |
| ***(iv)*** *Renovation of Dining hall of Indus hostel.* |
| ***(v)*** *Renovation of Dining hall of Chenab hostel.* |
| ***2*** | *Construction of Puff Panel Pre-Fabricated I & L type class rooms 11 No’s & 4 No’s & also hostel accommodation.* | *Rs. 1307.27 lacs* |
| ***3*** | *Furniture for Puff Panel Pre-Fabricated I & L type class rooms 11 No’s & 4 No’s & also hostel accommodation.* | *Rs. 208.15 lacs* |
| ***4*** | *Conversion of two No. of class rooms into Hi-tech class rooms* | *Rs. 59.00 lacs* |
| ***5*** | *Repair of Boundary wall including barbed wire fencing* | *Rs. 23.42 lacs* |
| ***6*** | *P/F of Chain link fencing around ply field* | *Rs. 30.74 lacs* |
| ***7*** | *Construction of Three ladies toilet blocks* | *Rs. 20.00 lacs* |
| ***8*** | *Conversion of Tin shed into Mess (Dining Hall) near Dal hostel for students.* | *Rs. 15.00 lacs* |
| ***9*** | *Renovation of Bio-Chemical Engineering Laboratory in Chemical Engineering Department* | *Rs. 12.56 Lacs* |
| ***10*** | *P/F & repair of collapsible shutters for the various sites in hostels* | *Rs. 3.00 lacs* |
| ***11*** | *Renovation of Roof of Workshop* | *Rs. 24.78 lacs* |
| ***12*** | *Installation of Fans & Augmentation of various shops of Institute Workshop* | *Rs. 10.84 lacs* |
| ***13*** | *Fabrication of Aluminum Cabins including tables for Research Scholars in all Departments* | *Rs. 39.84 lacs* |

**7.4. CENTRAL WORKSHOP**

|  |  |
| --- | --- |
| Department / Section Central Workshop | |
| Department / Section Head | Er Syed Irsahd Ahamd Qadri |

**Introduction**

The field of engineering continues to grow rapidly, transcending disciplines and driving economic growth. Workshop practice have become more significant in the industrial environment to manufacture products for the service of the mankind. Workshop Practice is a core subject and is highly essential for all engineers and technocrats for formalizing themselves with the latest techniques and concepts of manufacturing. The basic requirement is to impart instructions and practical knowledge of workshop technology to all the engineering students. In addition to introduction to various tools, processes and materials, live practical demonstration has been prepared for various trades in the workshop.

A well equipped workshop forms the most important centre in all the Engineering institutions for training of students of all the branches and trades. 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, pattern making, bench work and fitting, welding, sheet metal, black smithy and forging, machining, foundry and casting trades etc.. These trades are relevant and common to most of the industries manufacturing and repairing mechanical, electrical, computers, and electronics, instrument and control products.

The student has to acquire practical knowledge and skills of using machines and equipment, various cutting, measuring and marking tools, performing main operations through simple exercises.

The Central Workshop provides facilities in various trades of fabrication and manufacturing.

The workshop is a Central facility and provides full assistance to the students of all departments to under take the classes of Workshop Practice and provides practical training in all its nine engineering streams and also looks after the transport section with an aim to provide the transport to the students for technical tours and other related functions.

The primary objective of the Central Workshop is to impart the workshop practice to the engineering students and carry out the fabrication of project work of B. Tech and M. Tech students besides it plays pivotal role in maintenance and repair work of Institute.

**Students Project work**

Central Workshop has undertaken fabrication of various jobs and projects of the final year students of B. Tech and M. Tech. during the period 2017-2018.

**I. Papers Published by the Staff (National / International) during the period of 01.04.2017 to 31.03.2018:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S.No.*** | Name of the Staff members | Title of the papers | Conference/Journal etc, where published | Date of publishment |
| ***01*** | Er Syed Irshad Ahamd Qadri | A Study on Wear Analysis of Mixed Ceramic Cutting Tool | International Conference  On  Recent Trends in “ Engineering, Technology, Applied Sciences, Humanities and Business Management for Sustainable Development  (ETAHBS-2018)  Organized by: The Department of “Metallurgical and Materials Engineering”, NIT  Srinagar, Jammu and Kashmir – 190006 and  “Krishi Sanskrit” New Delhi On  20th - 21st October, 2018  Venue:  NIT, Srinagar, J&K | 20th - 21st October, 2018 |

**II. Programme attended by the Staff (Conferences/Courses/ Trainings):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No. | Name of the Staff members | Name of the programme attended | Institute where attended | Date |
| ***01*** | Er Syed Irshad Ahamd Qadri | International Conference  On  Recent Trends in “ Engineering, Technology, Applied Sciences, Humanities and Business Management for Sustainable Development  (ETAHBS-2018) | Organized by:  The Department of “Metallurgical and Materials Engineering”, NIT  Srinagar, Jammu and Kashmir | 20th - 21st October, 2018 |

**III. Programme Conducted (Conferences/Courses/ Trainings) by the Department:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***S.No.*** | *Name of the Programme* | *Date When Conducted* | *Name of the Coordinator(S)* | *Sponsoring Agency, if any* |
| ***01***  ***02***  ***03***  ***04*** | Conduct of Workshop classes of Goyt College of Engineering and Technology Safa Pora Gander bal Kashmir  Conduct of Workshop classes of University of Kashmir, North Campus Dalina Baramulla Kashmir  Conduct of Workshop classes of Department of Food Technology, Islamic University of Science and Technology Awanti Pora Kashmir  Conduct of Workshop classes of Central University of Kashmir, Srinagar | 26-09-2018 to 05 -12-2018  25-07-2018 to 02 -08-2018  10-07-2018 to 13 -07-2018  29-01-2018 to 07 -02-2018 | Syed Irshad Ahamd Qadri  Syed Irshad Ahamd Qadri  Syed Irshad Ahamd Qadri  Syed Irshad Ahamd Qadri | Goyt College of Engineering and Technology Safa Pora Gander bal Kashmir  University of Kashmir, North Campus Dalina Baramulla Kashmir  Department of Food Technology, Islamic University of Science and Technology Awanti Pora Kashmir  Central University of Kashmir, Srinagar |

**IV. Departmental Students Jobs / Projects:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *S.No.* | *Title of the Project* | *Investigator(s)* | *Sponsoring Organisation* | *Amount (in Rs)* | *Starting Year* |
| *01* | *Various Jobs and Projects of Students of Final Year B.Tech students and research scholars*  *Total Numbner of jobs 13 Nos* | *Concerned Investigator of respective departments of projects* | *Concerned departments of the Institute* | *Nil* | *2017-2018* |

**List of Sections/ Workshops**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Machine Section | 2 | Sheet Metal Section |
| 3 | Fitting and Bench Work Section | 4 | Welding Section |
| 5 | Foundry and Casting Section | 6 | Smithy and Forging Section |
| 7 | Carpentry and Patteren making Section |  |  |

**7.5. CAD LABORATORIES**

The Institute has two well established CAD laboratories in civil and mechanical engineering departments as centralised facilities. Sufficient number of systems and software’s are available for the use of staff and the students.

**7.6 IGNOU PROGRAMME STUDY CENTER**

The Institute also functions as A Programme Study Canter for two UG and two diploma programmes of the Indra Ghandi National Open University (IGNOU), New Delhi. The programmes include B.Tech. in Water Resource Engineering and Construction Management. Diploma programmes include Diploma in Civil Engineering and Advanced diploma in Mechanical Engineering.

**7.7 PHYSICAL EDUCATION**

**In-Charge- Dr. S. K. Bukhari**

The primary objective of the department is to provide sporting and recreational facilities to the students keeping in mind the famous quotation “sound mind carries sound body”. In this direction the department of physical Education is providing various sporting and recreational facilities to the students in the main ground and in the in- door Common Hall. From last few years the department is excelling in all the sports activities like Cricket, Football, Volleyball, Chess, Carom, Badminton, Athletics etc. The main ground of the Institute was made fully operational and capable to hold almost all sporting events.

**Sporting and recreational facilities available to:**

1. **Boy students:**
2. Common Indoor Hall and TV Hall
3. Gymnasium
4. Basket ball court
5. Playground
6. Volleyball court
7. Badminton Court
8. Lawn tennis court
9. Football ground
10. Cricket ground

10- Indoor games**:** Table Tennis, Carom, Chess

1. **Girl Students:**
2. Table tennis
3. Carom
4. Chess
5. Volleyball
6. Badminton
7. Treadmill
8. Mini Gymnasium
9. Kho Kho,
10. Recreational facility: TV facility is provided to the students in hostel of their residence.

Purchase Made:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Name of Equipment | Dat eof purchadse | Amount |
| 1 | Sports Goods | 01-042017 to 31-03-2018 | Rs.8,18,296.00/- |

**7.8 STUDENTS’ RESIDENTIAL FACILITIES**

The Institute has eight boys hostel named after famous rivers of our state. These are Chenab, Indus, Dal, Jhelum, Manasar, Manasbal, Tawi & PG and Two Girls Hostel which provide accommodation to about 2004 students at present. The residential capacity of each is as under:

**Batch Wise Detail of hostels for year 2017**

|  |  |  |
| --- | --- | --- |
| S. No | Name Of the Hostel | No. Of students |
| 01 | Jhelum & Dal Batch -(2014) | 467 |
| 02 | Chenab Batch-(2016) | 300 |
| 03 | Indus Batch - (2017) | 390 |
| 04 | Tawi Batch- (2015) | 458 |
| 05 | P.G Ph. D scholars | 40 |
| 06 | Girls-I and II | 151 |
|  | Total | **1806** |

**Batch Wise Detail of hostels for year 2018**

|  |  |  |
| --- | --- | --- |
| S. No | Name Of the Hostel | No. Of students |
| 01 | Jhelum Batch -(2015) | 291 |
| 02 | Dal Batch-(2015) | 156 |
| 03 | Chenab Batch-(2017) | 377 |
| 04 | Indus Batch - (2018) | 491 |
| 05 | Manasbal Batch -(2016) | 195 |
| 06 | Manasar Batch-(2016) | 100 |
| 07 | Tawi Batch- (M tech 2017,2018) | 138 |
| 08 | P.G Ph. D scholars | 36 |
| 09 | Girls-I (Junior Students) | 121 |
| 10 | Girls -II(Senior Students) | 99 |
|  | Total | **2004** |

During the period, Dr. Abdul Liman was Dean Students Welfare and Dr. Niyaz Ahmad was the Associate Dean Students Welfare.

**Hostel /Mess Wise list of wardens are as under**.

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No** | **Name** | **Department** | **Hostel Assigned** |
| **01** | Dr. Niyaz Ahmad | **Mathematics** | **Jhelum & Dal** |
| **02** | Dr Atiqur Rehman | **Metallurgy** | **Chenab** |
| **03** | Dr Kausar Majeed | **Chemistry** | **Girls Hostel** |
| **04** | Dr Tanveer Rasool | **Chemical** | **Mansar & Manasbal** |
| **05** | Dr Mushtaq Ahmad Rather | **Chemical** | **Indus Tawi & PG** |

**7.9. RESIDENTIAL AND SHOPPING FACILITIES**

The Institute being a residential Institute therefore campus provides residential facilities to some of its employees comprising of the faculty, administrative staff and the other supporting staff .

In addition to dedicated lodge for the Director and a well furnished guest house located on the bank of the world famous Dal Lake, the residential campus has the following staff quarters:

1. Directors lodge : 01
2. P-type Quarters : 08
3. A-type Quarters : 24
4. L-type Quarters : 42

The Institute also has facilities of day to day needs, like food commodities, stationery, tailoring facilities and STD facilities etc. for the students and the staff. There are number of shops within the campus to cater to the daily needs of the residents and non-resident employees and the students of the Institute, details given as follows:

1. General Provision & Stationery Stores : 02
2. Barber Shop : 01
3. Tailor Shop : 01
4. Tea Stall / Restaurants : 03
5. STD Stall : 03
6. Cafeteria : 01

**7.10. MEDICAL UNIT**

The Medical Unit of the Institute is headed by a qualified and experienced Medical Officer and manned by trained Lab. and other paramedical staff. In addition a lady doctor is available daily on part time basis. The Medical Unit has a two storied separate building spread over an area of 303 sq.mtr. Apart from providing facilities for consultations and investigations, medicines are issued to the students and staff free of any cost. The Unit has two Ambulances available to cater to emergencies round the clock. In the recent past the hospital has been modernized and has been equipped with the latest diagnostic tools like the Haematological and Biomedical equipment and a fully automatic ECG unit. The Medical Unit also ensures proper hygiene in the students messes and restaurants / tea stalls by advisories and inspections.

**Total number of patients attended….. 27718/-**

Annual Work done statement for the year 2017-18.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total Number of Patients  OPD | | Dressing and Minor Surgical Interventions | | Patients referred to various Hospitals | | Total Lab. Investigations under taken | | Total number of patients for Institute Councillor | | Total number of X-Ray/ ECG | | Total Patients admitted | |
| Students | Staff | Students | Staff | Students | Staff | Students | Staff | Students | Staff | Students | Staff | Students | Staff |
| 15522 | 7266 | 1159 | 452 | 220 | 90 | 277 | 1210 | 180 | 36 | 861 | 288 | 108 | 49 |
| **22788** | | **1611** | | **310** | | **1487** | | **216** | | **1149** | | **157** | |

**7.11. BANK**

A fully computerized branch of J&K bank is functioning within the Institute premises having net worked ATM. The bank has installed internet banking / phone banking/mobile banking in the branch. The bank also extends swift facility of house building loans, consumer’s loans and many other small loans to the staff and educations loans to the students.Besides ATM of SBI has been installed in the campus.

**7.12. TELEPHONE EXCHANGE**

Our Institute has a fully automated telephone exchange providing internal and external phone connectivity**.**

**7.13. Transport Unit**

Prompt attention was given to repair and maintenance of the Institute vehicles. Transport facilities were provided the various experts and other Institute guests invited for placement of students and other academic activities. The transport facilities were also provided to the students for conducting the various technical tours. In addition, Ambulance service has been provided to the Medical Unit of the Institute which facilitates the students in getting the proper medical care during emergency. Besides it,three numbers of light vehicles were purchased during the year 2018.

The list of vehicles presently operational in the Institute is as under:-

|  |  |  |
| --- | --- | --- |
| SNo | Name of the Vehicle | Quantity |
| 01 | Mini Bus, LP 709 | 02 Nos |
| 02 | Fortuner Toyota | 01 No |
| 03 | Innova Crysta0 | 01 No |
| 04 | Scorpio Mahindra | 01 No |
| 05 | Ambassador Staff car | 01 No |
| 06 | Ambulance | 02 No,s |
| 07 | Mini Truck | 01 No |

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**7.14. POST OFFICE**

Though a Post and Telegraph office operates near the campus at Hazratbal, at one and a half kilometer distance, the Institute has taken step to get a Post Office established in the Campus itself for benefit of students.

**8.0 ACHIEVEMENTS &INITIATIVES**

The Institute continued its efforts during the year 2017-2018 towards evolving directions to further growth and dissemination of scientific and technological knowledge. Brief outline of the major achievements are presented at below***:***

**Research and Development (R&D) Activities:**

The various Departments and Centres continue to carry out the research and development work in their respective areas of specializations. During the year following remained the main contribution in the R&D field:

1. **Ph.D.**
2. Awarded 18
3. Pursuing 247
4. Admitted 141 (2017-18)
5. **M.Phil**
6. Pursuing 01
7. Admitted -

**Sponsored Research and Industrial Consultancy:**

The various Departments and Centres of the Institute continue to work on sponsored research and industrial consultancy projects. During the year the work continued on 07 sponsored R &D projects amounting to about Rs.46.21 lacs.

A large number of consultancy assignments were also taken up during the year for an approximate amount of Rs.125.90 lacs.

**Placement:**

During the year under report the Institute succeeded in involving many companies and other agencies in the process of placement/trainings of the students and in some departments. In addition some students were appointed through off-campus selections and good number of students has gone for higher studies.

**9.0. THE COUNCIL, BOG AND OTHER COMMITTEES**

9.1. NIT COUNCIL:

|  |  |  |
| --- | --- | --- |
| (a) | Minister of Human Resource Development, Government of India. | Chairman |
| (b) | Secretary,  Department of Secondary & Higher Education,  Ministry of HRD, Government of India. | Member |
| (c) | Principal Adviser (Education),  Planning Commission. | Member |
| (d) | Secretary,  Department of Science & Technology, Government of India. | Member |
| (e) | Director General,  Council of Scientific & Industrial Research, Government of India. | Member |
| (f) | Secretary,  Department of Biotechnology,Government of India. | Member |
| (g) | Secretary,  Atomic Energy, Government of India. | Member |
| (h) | Secretary,  Department of Information Technology, Government of India. | Member |
| (i) | Secretary,  Department of Space,Government of India. | Member |
| (j) | Special Secretary / Addl. Secretary / Educational Adviser (T),  Department of Secondary & Higher Education,  Ministry of HRD, Government of India. | Member |
| (k) | Chairman,  University Grant Commission. | Member |
| (l) | Chairman,  All India Council of Technical Education. | Member |
| (m) | Two Chairmen, Board of Governors of National Institutes of Technology (by rotation). | Members |
| (n) | Four Directors of the National Institutes of Technology (by rotation). | Members |
| (o) | One Director of Indian Institute of Technology (by rotation). | Member |
| (p) | One Director of Indian Institute of Management (by rotation). | Member |
| (q) | Two Secretaries of Higher / Technical Education  from states where NITs are located (by rotation). | Members |
| (r) | Two persons from Industry nominated by the Central Government. | Members |
| (s) | Financial Adviser,  Ministry of Human Resource Development, Government of India. | Member |
| (t) | Joint Secretary, (Technical Education), Joint Educational Adviser (Technical Education), Ministry of Human Resource Development  Government of India. | Member-Secretary |

9.2. BOARD OF GOVERNORS:

|  |  |  |
| --- | --- | --- |
| ***Chairman*** | Nomination under Section 11 of NIT Act, 2007 (29 of 2007) Clause (a) | 1. Dr. M. J. Zarabi (Upto 23-11-2017)  2. Prof. Rakesh Sehgal (From 24-11-2017)  Director, NIT Srinagar (J&K) |
| ***Ex-Officio*** | (b) | 1. Prof. A. R. Dar (temporary) (upto 06-08-2017)  2. Prof. Manoj Singh Gaur (temporary) (upto 08-11-2017)  3. Prof. Rakesh Sehgal (from 09-11-2017  Director,  National Institute of Technology Srinagar, Hazratbal, Kashmir-190006 |
| *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* | (c) | Joint Secretary (NITs & DL),  Ministry of Human Resource Development,  Department of Secondary & Higher Education, Government of India, New Delhi |
| (c) | Joint Secretary & FA,  Ministry of Human Resource Development,  Department of Secondary & Higher, Government of India, New Delhi. |
| *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* | (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 |
| *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* | (e) | Dr. Prema Ramchandran,  Director,  Nutrition Foundation of India, Delhi |
| (e) |  |
| *One Professor and one Assistant Professor or a Lecturer of the Institute to be nominated by the Senate* | (f) | Prof. Rajinder Ambardar,  Metallurgical & Materials Engineering Department,  National Institute of Technology Srinagar. |
| (f) | Dr. Mohammad Hanief,  Assistant Professor,  Mechanical Engineering Department, NIT Srinagar |
| ***Member-Secretary*** | Section 18 Clause (2) | 1. Prof. Fayaz Ahmad Mir,  Registrar I/C,NIT, Srinagar. (upto 23-07-2017)  2. Prof. Mohammad Shafi Mir  Registrar I/C,NIT, Srinagar. (From 24-07-2017) |

9.3. FINANCE COMMITTEE:

|  |  |  |
| --- | --- | --- |
| ***Chairman*** |  | 1. Dr. M. J. Zarabi (Upto 23-11-2017)  2. Prof. Rakesh Sehgal (From 24-11-2017)  Director, NIT Srinagar (J&K) |
| ***Members:***  Two persons nominated by the Central Government | 1  2 | Joint Secretary (NITs & DL),  Ministry of Human Resource Development,  Department of Secondary & Higher Education, Government of India, New Delhi  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  2 | Prof. Rajinder Ambardar,  Metallurgical & Materials Engineering Department,  National Institute of Technology Srinagar. |
| Director  (Ex-officio) |  | Prof. Rajat Gupta  Director,  National Institute of Technology,  Hazratbal, Srinagar-190006 |
| Member Secretary  (Ex-officio) |  | 1. Prof. Fayaz Ahmad Mir,  Registrar I/C,NIT, Srinagar. (upto 23-07-2017)  2. Prof. Mohammad Shafi Mir  Registrar I/C,NIT, Srinagar. (From 24-07-2017) |

**9.4. SENATE:**

|  |  |  |
| --- | --- | --- |
| Chairman |  | 1. Prof. A. R. Dar (temporary) (upto 06-08-2017)  2. Prof. Manoj Singh Gaur (temporary) (upto 08-11-2017)  3. Prof. Rakesh Sehgal (from 09-11-2017  Director,  National Institute of Technology Srinagar, Hazratbal, Kashmir-190006 |
| *Three persons, one of whom shall be a woman, not being employees of the Institute to be nominated by the Chairperson in consultation with the Director, from amongst educationists of repute, one each from the field of Science, Engineering and Humanities* | 1 | Prof. Mehraj-ud-Din,  Vice-Chancellor,  Central University of Kashmir,  Srinagar (J&K) |
| 2 | Prof. S. K. Koul,  Professor,  Centre for Applied Research in Electronics (CARE),  Indian Institute of Technology,  Hauz Khas, New Delhi. |
| 3 | Prof. Azra Nahid Kamili,  Dean Biological Sciences &  HOD, Environmental Sciences,  University of Kashmir |
| One person to be nominated from the Industry |  | Mr. Deepak Bhasin,  B-134, Naraina Vihar,  New Delhi. |
| Institute alumnus |  | Er. Mufti Musharib Gul  General Manager,  BSNL Srinagar |
| ***The Professors appointed or recognized as such by the Institute for the purpose of imparting instructions in the Institute.*** | 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, Co-ordinator 1st& 2nd Semester, Chairman Library Committee, Librarian and DPE. |
| **Secretary** | 1. Prof. Fayaz Ahmad Mir,  Registrar I/C,NIT, Srinagar. (upto 23-07-2017)  2. Prof. Mohammad Shafi Mir  Registrar I/C,NIT, Srinagar. (From 24-07-2017) | |

9.5. BUILDING AND WORKS COMMITTEE

|  |  |  |
| --- | --- | --- |
| Chairman |  | 1. Prof. A. R. Dar (temporary) (upto 06-08-2017)  2. Prof. Manoj Singh Gaur (temporary) (upto 08-11-2017)  3. Prof. Rakesh Sehgal (from 09-11-2017  Director,  National Institute of Technology Srinagar, Hazratbal, Kashmir-190006 |
| ***Members:***  **Nominated by MHRD and IFD New Delhi** | 1  2. | Director OR  Deputy Secretary (NITs),  MHRD,  Department of Secondary & Higher Education,  Government of India, New Delhi – 110 001.  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**  6 | Mr. Dhiraj Kumar, ,  Superintendent Engineer (Civil),  CPWD, Chandigarh.  Shri Prabhakar Kumar Verma,  Chief Architect,  CPWD,  Chandigarh  Prof. Bashir Ahmad Mir,  Associate Dean,  P&D, NIT Srinagar  Shri Rajiv Sao,  Superintendent Engineer,  CPWD Chandigarh  Executive Engineer (Civil),  CPWD, Srinagar.  Er. Aijaz Ahmad Khan,  Executive Engineer,  Electric Division 4th  Srinagar. |
| Secretary |  | 1. Prof. Fayaz Ahmad Mir,  Registrar I/C,NIT, Srinagar. (upto 23-07-2017)  2. Prof. Mohammad Shafi Mir  Registrar I/C,NIT, Srinagar. (From 24-07-2017) |

The meetings of the above statutory committees were conducted as detailed below:

|  |  |
| --- | --- |
| Name of Statutory Committee | Date of the meeting |
| Senate | 1. 27-12-2017 |
| Building Works Committee | * + 1. 01-11-2017 |
| Finance Committee | 1. 21-11-2017 2. 14-03-2018 |
| Board of Governors | 1. 19-06-2017 2. 21-11-2017 3. 14-03-2018 |