

Dr. Vivek

- **Assistant Professor in National Institute of Technology (NIT), Srinagar, Hazratbal, Jammu and Kashmir** 190006 (From 10th August 2022)

- **Former Assistant Professor at Jawaharlal Nehru Government Engineering College Sunder Nagar, Himachal Prad**esh, India (9TH February 2016 to 4th August 2022 through **HPPSC)**

Contact Detail:

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Former Responsibilities at Jawaharlal Nehru Government Engineering College Sunder Nagar, Himachal Pradesh:

1. Associate Dean (R&D)
2. Chairman(NISP)
3. Chairman (Startup)
4. Projects Coordinator(Civil Department, JNGEC Sundernagar)
5. Chairman (Student Chapter, IEI)

EDUCATION:

- Ph. D. in Civil Engineering from **National Institute of Technology (NIT), Hamirpur,** India.
- Post Doctorate from **National Institute of Technology (NIT), Srinagar, India.**

AREA OF EXPERTISE:

Pavement Materials, Design and Construction,Traffic Flow Theory and Modelling, Vehicular Emission Modelling, Sustainable Geotechnics in Highway and Energy, Foundation Engineering, Pavement Foundation,Soil Structure Interactions

List of research Publications in National and International Journals

Vivek, Rakesh Sehgal, Mohammad Shafi Mir.2022. Studies of modulus of resilience on unpaved roads reinforced with untreated/treated coir geotextiles Journal of Natural Fibers.

Vivek, Rakesh Sehgal, Mohammad Shafi Mir. 2022. Study on bearing capacity of unpaved roads reinforced with coir geotextiles using finite element method (FEM) . Journal of Natural Fibers.

Vivek, Priya Jaswal , Sk Sinha.2022. Investigation on Tensile Strength Characterisation of Untreated and Surface Treated Coir Geotextiles. Journal of Industrial Textiles

Vivek, Priya Jaswal , S. K Sinha.2022. "Improvement in the performance of two layered model pavement with treated coir geotextile at the interface Journal of Industrial Textiles.

Vivek, R. K. Dutta 2021. Bearing ratio behaviour of sand overlying clay with treated coir geotextiles at the interface. Journal of Natural Fibers10.1080/15440478.2021.1952135

Vivek, R. K. Dutta 2020. Effect of chemical treatment on the durability behaviour of coir geotextiles. Journal of Natural Fibers. doi: 10.1080/15440478.2020.1839622

Vivek, R. K. Dutta, and R. Parti. 2019. Effect of Chemical Treatment of the Coir Geotextiles on the Interface Properties of Sand–/Clay–Coir Geotextile Interface. Journal of The Institution of Engineers (India): Series A. doi: 10.1007/s40030-018-0348-x

Vivek, R. K. Dutta, and R. Parti. 2019. Application potential of treated coir geotextiles in unpaved roads. Journal of Natural Fibers. doi: 10.1080/15440478.2019.1578718

Vivek. 2019. A New Model to Evaluate Percent-Time-Spent-Following on Two-Lane Highways. Lecture Notes in Civil Engineering, Transportation Research (Springer), vol 45.,doi.org/10.1007/978-981-32-9042-6 , pp 377-387

Vivek, R. Parti, I. Singh 2018. Review of Percent Time Spent Following (PTSF) as Performance Measure for Two-lane. Indian Highway, Vol.46, (2),Page 23-28

List of Short- Term courses/ Workshops and Conferences organized

1. Workshop on "Advances in sustainable infrastructure planning and development" on 14th Sep 2016 at JNGEC (TEQIP III)
2. Conference on "Innovation without limit in Civil Engg" on 18-19 March 2016 at JNGEC, Sundernagar
3. Workshop on "URBAN INFRASTRUCTURE DEVELOPMENT" on 15th Feb 2017 at JNGEC (TEQIP III)
4. Workshop on Landslides-Issues and Remedial Measures on 24th Feb, JNGEC (TEQIP III)
5. Workshop on Latest Trends in Civil Engineering organised by Dept. of Civil Engineering on 7th Sep 2019 spnsored by TEQIP-III
6. Workshop on Idea Generation and opportunity Evaluation for aspiring Entrepreneur'' at JNGEC 30TH August 2019
7. Workshop on Landslide Monitoring by Using Sensor and Wireless Technique at JNGEC (TEQIP III) on 18TH June 2020
8. Workshop on First Brainstorming session at JNGEC (TEQIP III) on 21st December 2020
9. Workshop on Implementation of Start up and NISP policy in the field of engineering at JNGEC (TEQIP III) on 30TH January 2021

10. Workshop on Rendezvous with Innovation and Startups at JNGEC (TEQIP III) on 06th February 2021

11. Workshop on Benefit of startup in students life at JNGEC (TEQIP III) on 06th February 2021

12. Workshop on Transcending Innovations at JNGEC (TEQIP III) on 6th MARCH 2021

8. List of Short Term courses/ Workshops /Conferences attended

1. AICTE sponsor short term training program for one week on Disaster Management and mitigation organised by Dr. N.G.P. Institute Of Technology Kalapatti Road, Coimbatore - 641 048, Tamil Nadu, India. 03-08-2020 to 08-08-2020

2. Two week program on Induction Program Phase- I organised by National Institute of Technical Teachers Training And Research Institute10-08-2020 to 21-08-2020

3. One week webinar series on Geotechnical engineering organised by Kumaraguru College of Technology, Coimbatore, India 13 -07- 2020 to 20 -07-2020

4. One week Short Term Course on Emerging treads in Civil Engineering organised by Kumaraguru College of Technology, Coimbatore, India 21 -07- 2020 to 26 -07- 2020

5. One week Short Term Course on Intellectual Property Right and Effective Patent Drafting organised by Kumaraguru College of Technology, Coimbatore, India

   27 -07- 2020 to 31 -07- 2020

6. Innovative Technologies and Practices In construction Industries organised by Kumaraguru College of Technology, Coimbatore, India 03 -08- 2020 to 09-08-2020

7. 4 week courses on Geotechnical Engineering Laboratory organised by NPTEL 03-07-2020 To 10-12-2020

8. 2 Week course on Soil Mechanics/Geotechnical Engineering I organised by NPTEL 03-07-2020 To 10-12-2020

9. Training of Master Trainers on Earthquake Resistant Construction Practices"10th June 2019-14th June 2019

10. Faculty Development Programme on “Life Skill Development) 2nd January 2020-11th January 2020
11. Faculty Development Programme on “Life Skill Development 02-01-2020 to 11-01-2020
12. FDP on "Art of Being an Effective Researcher" 25-03-2021 to 29- 03-2021
13. AICTE-STTP on Empowering the moral values, ethics and behavioral attitude in teaching skills among teachers (phase-iii)19-04-21 to 24-04-21
14. Summer Training Programme on Active Learning at IIT Indore 25th – 29th June, 2018
15. 1-week STC on Statistical Methods in Research Methodology 4th- 8th June, 2018
16. Workshop on “Outcome Based Accreditation for Undergraduate Engineering Programs” on 12 th -13 th March 2018
17. Workshop on “urban infrastructure development” on nat JNGEC Sundernagar15th Feb 2017
18. Innovation without limit in Civil Engg 18-19 March 2016
19. Workshop on “Advances in sustainabale infrastructure planning and development” at JNGEC Sundernagar14th Sep 2016,
20. Characterizing the uncertain in Climate change impact assessment for water resources 20-26th Feb 2016
21. Recent Power Quality in Deregulated Power System with MATLAB Application6-10 TH June , 2016
22. Office Procedure conduct and CCA Rules, 1st July 2016
23. Finite Element method and its application in Structural Engg. and Hydraullics 4TH to 10 July 2016
24. Vivek. Functional performance of coir geotextile in National Conference Nanotechnology at National Institute of Technology (NIT), Srinagar11th September 2021

- ## Information related to publication of Book/Book Chapter

1. Vivek, R. Parti, I. Singh 2018. Review of Percent Time Spent Following (PTSF) as Performance Measure for Two-lane. Indian Highway, Vol.46, (2), Page 23-28

2. Vivek, 2019. A New Model to Evaluate Percent-Time-Spent-Following on Two- Lane Highways. Transportation Research (Springer), Vol 45, doi.org/10.1007/978-981-32-9042-6, Pages 377-387

- ## Information related to Research Project

1. Collaborative Research Project 2019-20 under TEQIP-III with **IIT Indore.**

2 Utilization of natural Geotextiles and Fibres in Unpaved roads under TEQIP II

- ## Undergraduate project guided

1. Landslide susceptibility mapping of the study area using info value method and geospatial tool of GIS (July 2016 – Dec 2016)

2. Estimation of percent Time spent following on two lane Highways Using LWR theory (July 2016 – Dec 2016)

3. Estimation of percent Time spent following on two lane Highways Using Light hill theory (July 2016 – Dec 2016)

4. Study and design of Reinforced Unpaved roads (Jan 2017-May 2017)

5. Performance of the subgrades soil using various admixtures and fibres (Jan 2017-May 2017)

6. Performance of the subgrades soil using various admixtures and fibres under various loading(Jan 2017-May 2017)

7. Study on Unpaved Road using coir fibres(July2017 -Dec 2017)

8. Comparative study of geomaterials (Jan 2018- May 2018)

9. Analysis of the traffic accidents using different approaches (Jan 2018- May 2018)

10. Soil Stabilization using coir geotextiles(July 2018 -Dec 2018)

11. Durability study on coir geotextiles(July -Dec 2018)

12. Application of natural and artificial fibres in road construction (Jan 2019 -May 2019)

13. Use of untreated /treated pine needles for the stabilization of kaolinite clay (July 2019 - Dec 2019)

14. Study of ladle furnace slag as cementitious material reinforced with basalt fibres using alkali activation concrete (July2019 -Dec 2019)

15. Potential of agave fibres in unpaved roads (July2019 -Dec 2019)

16. Bearing capacity of kaolinite clay using nanomaterial coating of egg cell (July2019 -Dec 2019)

17. Defects in concrete slab and road pavement (July 2020 -Dec 2021)

18. Modelling, Analysis and design of a multistory building using ETABS (July2020 - Dec 2021)

19. Application of Sisal Fiber in Civil Engineering (Jan 2020 -May 2020)

20. Application of Primavera in Civil Engineering (July 2021 to Dec2021)

21. Pushover analysis of 8 story building using sap 2000 (July 2021 to Dec2021)

22. Estimation of quantity and rate analysis of multistorey building (July 2021 to Dec 2021)

23. Analysis and design of multistorey building using ETABS Software (July 2021 to Dec 2021)

24. Infrastructure modelling in BIM using Autodesk tool (July 2021 to Dec 2021)

25. Ground water analysis by water quality index (July 2021 to Dec 2021)

26. Functional performance of Coir geotextiles in unpaved roads (July 2021 to Dec 2021)

27. Bearing capacity of unpaved roads using Plaxis 3 D (July 2021 to Jan 2022)

28. Potential of Coir geotextiles in Civil Engineering(July 2021 to Jan 2022)

29. Functional Application of chemical treated coir geotextiles in paved roads.(July 2021 to Jan 2022)

- ## List of Labs under the charge of Dr. Vivek

Geotechnical Engineering Lab (03.05.2017 to 24.1.2020)

Transportation Engineering Lab (16.2.2016 to 24.02.2022)

- ## List of Departmental level activities performed by Dr. Vivek

1. Member and coordinator of Civil engineering department and Institute level committee for industry-institute interaction (16-02-2016 to 06-09-17)
2. Faculty counsellor of 3rd year in department of Civil engineering (15-01-18 to 24-02-22)
3. Faculty in charge of 3rd year (08-08-2017 to 24-02-22)
4. Member of inspection committee of survey concrete, geotechnical, highway lab. (10-03-2017 to 24-02-22)
5. Member of department under graduate committee (06-1-17 to 24-02-22)
6. Member of Civil engineering department alumni feedback (20-2-2016 to 24-2-2022)
7. Member of anti-ragging flying squad (29-07-2016 to 24-02-22)
8. Member of Institution Innovation council (2-11-18 to 24-02-22)
9. Member of start-up incubation cell and innovation cell (31-01-2019 to 24-02-22)
10. Member of NBA accreditation work (26-6-2019 to 24-02-22)
11. Member of mentoring and universal human value committee (1-8-2019 to 24-02-22)
12. Member and Chairman of student chapter of Civil Engineering department under institution of Engineers committee (30-09-2020 to 24-02-22)
13. Member of students Project coordinator team (06-09-2017 to 24-02-22)
14. Member of Internal Complaints Committee (25-03-21to to 24-02-22)

15. Member of student counsellor committee (2021-2002) (26-3-21 to 24-02-22)
16. Member of Flying squad committee for monitoring SOP of COVID 19 (1-7-2021 to 24-02-22)
17. **Chairman of start-up cell (**12/10/20 to till today)
18. **Chairman of National Innovation and start-up policy (NISP) (**30/10/2020 to till today)
19. **Faculty in charge of Training and placement (**16-02-2016 to 06-09-17)
20. **Chairman of Institution of Engineers (India) (From** 4/03/21 to till today)

- **Significant outreach Institute out activities**

1. Delivered lecture to on Five Days Faculty Development Program on "Research Integrity and Ethics" from 22nd to 26th June, 2021 organized by the IQAC of Sri Sai College of Engineering and Technology Badhani, Pathankot, Punjab, India
2. Deliver lecture to forest Range officer from date 11-2-21 to 15-2-21.
3. Delivered lecture to Govt. Polytechnic Talwar, Himachal Pradesh on 31st May 2021
4. Presented paper at National Institute of technology, Srinagar on Nanotechnology for better Living (NBL-2021) from 7TH TO 11TH September, 2021.
5. Presented paper on 4th International conference on material strength and applied mechanics in China from (16TH TO 19TH August 2021).