

Curriculum Vitae

RAJAT RASTOGI, PhD IIT Bombay

Professor in Transportation Engineering

Department of Civil Engineering

Indian Institute of Technology Roorkee

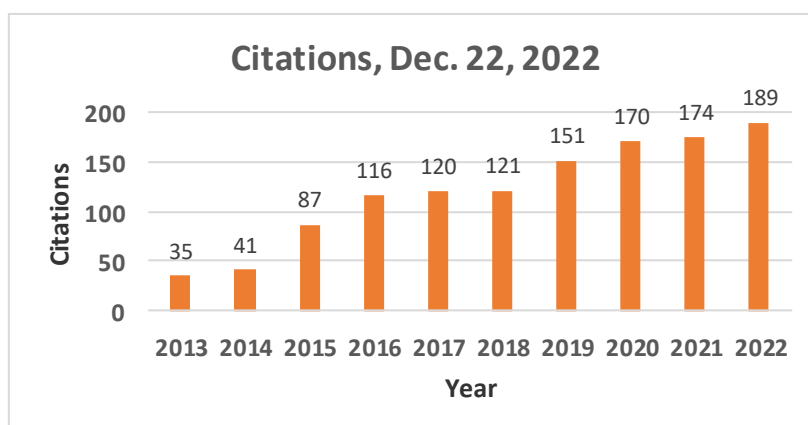
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| Citations | All | Since 2017 |
|---------------------|-------|------------------------------|
| Citations | 1330 | 920 |
| h-index | 19 | 18 |
| i10-index | 27 | 23 |
| Research Gate Score | 20.29 | Higher than 72.5% RG Members |
| Research Interest | 1080 | Higher than 92% on RG |
| Reads | 70480 | RG - Pub |



I. Experience

1. Professor in Department of Civil Engineering, Indian Institute of Technology Roorkee, from December 22, 2018 with basic Rs 1,79,100.00 in the pay band 14A.
2. Associate Professor in Department of Civil Engineering, Indian Institute of Technology Roorkee, from October 23, 2012 to December 21, 2018 with basic Rs 54,320.00 in the pay band of Rs 37400 – 67000 with Academic Grade Pay Rs 9500.
3. Assistant Professor in Department of Civil Engineering, Indian Institute of Technology Roorkee, from June 30, 2009 to October 22, 2012 with basic Rs 37400 in the pay band of Rs 37400 – 67000 and Grade pay Rs 9000.
4. Assistant Professor in Department of Civil Engineering, Indian Institute of Technology Roorkee, from June 30, 2006 with basic Rs 30000 in the pay band of Rs 37400 – 67000 and Grade pay Rs 8000 (old basic Rs14520 in the pay scale of 12000-420-18300).
5. Assistant Professor in Civil Engineering Department, Motilal Nehru National Institute of Technology, Allahabad, from July 28, 2005 to June 28, 2006 with last basic Rs13260 in the pay scale of 12000-420-18300.
6. Lecturer (senior scale) in the Department of Civil Engineering, Engineering College Kota, from August 20th, 1996 to July 26th, 2005 with last basic 12600 in the scale of 10000-325-15200.

7. Lecturer in Department of Civil Engineering, Engineering College Kota, from August 20th, 1990 to August 19th, 1996 with last basic 2800 in the scale of 2200-75-4000 (pre-revised).
8. Research Experience from July 1998 to July 2001 at Indian Institute of Technology Bombay.

II. Academics

| <u>Degree</u> | <u>University</u> | <u>Year</u> | <u>Percentage</u> |
|--|--|-------------|----------------------|
| Doctor of Philosophy | Indian Institute of Technology Bombay, Mumbai. | 2002 | 9.25 CGPA |
| P. G. Diploma in Ecology & Environment | Indian Institute of Ecology and Environment, New Delhi. | 1997 | 72.10 |
| ME Highway Engineering | Punjab Engineering College, Panjab University, Chandigarh. | 1990 | 76.96 Distinction |
| BE Civil Engineering | Punjab Engineering College, Panjab University, Chandigarh. | 1988 | 73.46 Honours |

III. Publications and Presentations

Journal Impact Factors: (Dec 2022)

Transportation (4.814), Trans. Res-D.(7.041), ASCE Trans. Engg. (2.18), ASCE Urban Plann. & Dev.(2.53), Leisure Studies (2.888), Pave. Res. & Tech (2.67), IRC, Trasporti Europei (1.24), KSCE (1.805), Traffic Engg. & Control, IJTTE, Current Science (1.102), Canadian J. (1.38), Trans. Letters (1.840), Transport (1.469), Int. J. of CE (2.184), TRR (2.019), Int. J. of Pavement Engg. (4.178), J. of Modern Transportation (4.04), J. Trans. Engg. Part-B Pavements (2.36)

Impact Factor: 1.102 to 7.041

In International Refereed Journals

1. Walia, A., Rastogi, R., Kumar, P. and Jain, S.S. (2022), Development of a Temperature Prediction Model for Asphalt Pavements considering Air Temperature Data of Preceding Hours. International Journal of Pavement Engineering, <https://doi.org/10.1080/10298436.2022.2132245> (Q1)
2. Kahali, D., & Rastogi, R. (2021). Passenger Flows at Escalators – Arriving at Count Interval for Design Flow Estimation. European Journal of Transport and Infrastructure Research, 21(4), 62–80. <https://doi.org/10.18757/ejtir.2021.21.4.5703> (Q2)
3. Walia, A., Rastogi, R., Kumar, P. and Jain, S.S. (2021) Determination of Effective Depth to Measure Temperature Required for Structural Evaluation of Asphalt Pavements, ASCE J. of Transportation Engineering Part B – Pavements, 147(3), 10.1061/JPEODX.0000290 (Q2)

4. Kahali, D. and Rastogi, R. (2021), Comparative Analysis of Escalator Capacity at Metro Stations: Theory vs. Practice. *Transportation* 48, 3121-3141
<https://doi.org/10.1007/s11116-020-10160-6> **(Q1)**
5. Kahali, D. and Rastogi, R. (2021), Analysis of Flow Characteristics and Step Size of Escalators at Metro Stations. *KSCE Journal of Civil Engineering* 25(3), 1043-1055.
<https://doi.org/10.1007/s12205-021-1142-2> **(Q2)**
6. Goyal, T., Kahali, D. and Rastogi, R. (2020), Analysis of Pedestrian Movements on Stairs at Metro Stations. *Transportation Research Procedia*, 48, 3786-3801. DOI: 10.1016/j.trpro.2020.08.040
7. Pasha, A., Rastogi, R., and Mir, M. S. (2020), Impact of Car Restrictive Policies: A Case Study of Srinagar City in J&K State, India. *Transportation Research Procedia*, 48, 2690-2705. DOI: 10.1016/j.trpro.2020.08.245
8. Jain, U. and Rastogi, R. (2020), Revision of PV^2 Criteria based Pedestrian Crossing Warrants. *Transport* 35(2), 168-178. DOI: <https://doi.org/10.3846/transport.2020.12474> **(Q2)**
9. Ahmad, A. and Rastogi, R. (2019), Calibrating HCM Model for Roundabout Entry Capacity under Heterogeneous Traffic. *Journal of Modern Transport*, 27(4), 293-305, <https://doi.org/10.1007/s40534-019-00194-7> **(Q2)**
10. Akhtar, Mo. W., Ahmad, A. and Rastogi, R. (2018) Gap Acceptance Behaviour and Vehicle Speed on Roundabouts: Case Study in India. *European Transport*, 68, 1-16. **(Q4)**
11. Jain, U., Singh M., Rishiraj, Verma R., Vijay, R. and Rastogi, R. (2018) Revision of PV^2 based Pedestrian Crossing Warrants in India using Clustering Techniques. *Transportation Letters*, 11(5), 241-249. DOI: <https://doi.org/10.1080/19427867.2018.1427536> **(Q2)**.
12. Jain, U. and Rastogi, R. (2017) Re-examination of PV^2 criteria for Developing Pedestrian Crossing Warrants. *Transport Research Procedia* 25, 1710-1719.
DOI: <https://doi.org/10.1016/j.trpro.2017.05.130>
13. Ahmad, A. and Rastogi, R. (2017), Regression Model for Entry Capacity of a Roundabout Under Mixed Traffic Condition – An Indian Case Study. *Transportation Letters*, 9(5), 243-257. doi:10.1080/19427867.2016.1203603 **(Q2)**.
14. Ahmad, A. and Rastogi, R. (2017), An Approach to Deal with Heterogeneity on Roundabouts. *International Journal of Civil Engineering*, 15(4), 585-598. DOI: 10.1007/s40999-017-0189-4 **(Q2)**
15. Jain, U and Rastogi, R (2016), Pedestrian Crossing Warrants – A Global Perspective. *Current Science*, 111 (6), 1016-1027. DOI: 10.18520/cs/v111/i6/1016-1027 **(Q2)**
16. Mahesh, S., Ahmad, A. and Rastogi, R. (2016), An Approach for the Estimation of Entry Flows on Roundabouts. *Transportation Research Procedia* 17, Elsevier Science, 52-62. DOI: 10.1016/j.trpro.2016.11.060

17. Ahmad, A., Rastogi, R. and Chandra, S. (2015), Estimation of Critical Gap on a Roundabout by Minimizing the Sum of Absolute Differences in Accepted Gap Data. Canadian Journal of Civil Engineering, 42, 1011-1018. DOI: 10.1139/cjce-2014-0450 **(Q2)**
18. Gupta, A., Kumar, P. and Rastogi, R. (2015), Critical Pavement Response Analysis of Low Volume Pavements considering Nonlinear Behaviour of Materials. Journal of Transportation Research Record 2474(1), 3-11. DOI: 10.3141/2474-01 **(Q2)**
19. Rastogi, R., Harikrishna, M. and Patil, A (2015), Segmentation Analysis of Domestic Tourists: A Case Study. KSCE Journal of Civil Engineering, 19(5), 1509-1522. <https://doi.org/10.1007/s12205-015-0673-9> **(Q2)**
20. Chandra, S., Rastogi, R., Das, V. R. and Illango, T. (2014), Pedestrian Behaviour Under Varied Traffic and Spatial Conditions. European Transport (Trasporti Europei), 56, ISSN 1825-3997. **(Q4)**
21. Jain, A., Gupta, A., and Rastogi, R. (2014), Pedestrian Crossing Behaviour Analysis at Intersections. International Journal for Traffic and Transportation Engineering, 4(1), 103-116. DOI: [http://dx.doi.org/10.7708/ijtte.2014.4\(1\).08](http://dx.doi.org/10.7708/ijtte.2014.4(1).08)
22. Gupta, A, Kumar, P and Rastogi, R. (2014), Mechanistic – Empirical Approach for Design of Low Volume Pavements. International Journal of Pavement Engineering, 16(9), 797-808. DOI: [10.1080/10298436.2014.960999](https://doi.org/10.1080/10298436.2014.960999) **(Q1)**
23. Gupta, A., Kumar, P. and Rastogi, R. (2014), Critical Review of Flexible pavement Performance Models. KSCE Journal of Civil Engineering 18 (1), 142-148. DOI: 10.1007/s12205-014-0255-2 **(Q2)**
24. Chandra, S., Rastogi, R. and Das, V. R. (2014), Descriptive and Parametric Analysis of Pedestrian Gap Acceptance in Mixed Traffic Conditions. KSCE Journal of Civil Engineering 18(1), 284-293. DOI: 10.1007/s12205-014-0363-z **(Q2)**
25. Rastogi, R., Harikrishna, M., and Jacob, Mani (2014), Choice-based Modelling by Destination Value and Type of Planning for Domestic Leisure Travellers in India. Journal of Urban Planning and Development, 140(1), ASCE. DOI: [10.1061/\(ASCE\)UP.1943-5444.0000183](https://doi.org/10.1061/(ASCE)UP.1943-5444.0000183) **(Q1)**
26. Rastogi, R., Illango, T. and Chandra, S. (2013), Pedestrian Flow Characteristics for Different Pedestrian Facilities and Situations. Journal of European Transport (Trasporti Europei). Vol 53, ISSN 1825-3997. **(Q4)**
27. HariKrishna, M. and Rastogi, R. (2013), Social and psychological factors influencing destination preferences of domestic tourists in India, Leisure Studies, 32(2), Routledge, Taylor and Francis, UK, 207-217. <https://doi.org/10.1080/02614367.2011.632781> **(Q2)**
28. Chandra, S., Rastogi, R. and Das, V. R. (2012), Risk Analysis and Pedestrian Crossing Behaviour. Traffic Engineering and Control, Vol. 53(10), UK, 383-386. **(Q3)**

29. HariKrishna, M. and Rastogi, R. (2012), Identification of decision parameters influencing destination choices of Indian domestic tourists, *International Journal of Physical and Social Sciences*, 2(1), 233-263. (e-Journal)
30. Rastogi, R., Ilango T, Chandra, S. (2011), Design implications of walking speed for pedestrian facilities, *Journal of Transportation Engineering*, 137(10), American Society of Civil Engineers, USA, 687-696. DOI: 10.1061/(ASCE)TE.1943-5436.0000251 **(Q2)**
31. Rastogi, R. (2011), Promotion of non-motorized modes as sustainable transportation option: policy and planning issues, *Current Science*, 100(9), 1340-1348. **(Q2)**
32. Gupta, A., Kumar, P. and Rastogi, R. (2011), Pavement deterioration and maintenance model for low volume roads, *International Journal of Pavement Research and Technology*, 4(4), 195-202. DOI: 10.6135/ijprt.org.tw/2011.4(4).195 **(Q1)**
33. Rastogi, R., Chandra S., Vamsheedhar, J. and Das, V. R. (2011), A parametric study of pedestrian speeds at midblock crossings. *Journal of Urban Planning and Development*, 137(4), 381-389. DOI: 10.1061/(ASCE)UP.1943-5444.0000083 **(Q1)**
34. Kotkar, K. L., Rastogi, R. and Chandra, S. (2010), Pedestrian Flow Characteristics in Mixed Flow conditions. *Journal of Urban Planning and Development*, 136(3), 23-33. DOI: 0.1061/(ASCE)0733-9488(2010)136:1(23) **(Q1)**
35. Rastogi, R. (2010), Willingness to Shift to Walk or Bicycle for Accessing Suburban Rail - A Case Study in Mumbai, India. *Journal of Urban Planning and Development*, 136(3), 3-10. DOI: 10.1061/(ASCE)0733-9488(2010)136:1(3) **(Q1)**
36. Rastogi, R. and K. V. Krishna Rao (2009), Segmentation Analysis of Commuters Accessing Transit: A Mumbai Study. *Journal of Transportation Engineering*, 135(8), 506-515. DOI: 10.1061/(ASCE)0733-947X(2009)135:8(506) **(Q2)**
37. Rastogi, R. and K. V. Krishna Rao (2003), Defining Transit Accessibility with Environmental Inputs. *Transportation Research Part D: Transport and Environment*, 8(5), USA, 383-396. DOI: 10.1016/S1361-9209(03)00024-5 **(Q1)**
38. Rastogi, R. and K. V. Krishna Rao (2003), Travel Characteristics of Commuters Accessing Transit: A Case Study. *Journal of Transportation Engineering*, 129(6), 684-694. DOI: 10.1061/(ASCE)0733-947X(2003)129:6(684) **(Q2)**
39. Rastogi, R. and K. V. Krishna Rao (2002), Survey Design for Studying Transit Access Behaviour in Mumbai City, India. *Journal of Transportation Engineering*, 128(1), 69-79. DOI: 10.1061/(ASCE)0733-947X(2002)128:1(68) **(Q2)**
40. Rastogi, R. and K. V. Krishna Rao (1999), A policy framework for a sustainable multi-mode urban transportation planning. *European Transport-Trasporti Europei*, (13), 65-75. **(Q4)**

In National Refereed Journals

1. Agarwal, P. and Rastogi, R. (2022), 'Modifying v/c matrix to evaluate congested links on a road network for maintaining Level of Service'. Indian Highways, Vol. 50 (7), Indian Roads Congress, New Delhi, India, 25-37.
2. Rastogi, R., Ruparthi, B. and Khadiaya, P. (2020), 'Bicycle Movement in Class-I City – A Case Study of Roorkee. Indian Highways, Vol. 48 (4), Indian Roads Congress, New Delhi, India, 36-47.
3. Jain. U. and Rastogi, R. (2018), 'Development of Guidelines for Pedestrian Crossing Facilities', Journal of Indian Roads Congress, Paper No. 688, Vol. 79 (4), Indian Roads Congress, New Delhi, India, 39-48.
4. Ahmad, A. and Rastogi, R. (2017), 'Influence of Roundabout Size and Circulating Traffic on Critical Gaps, Follow-up Times and Speeds, Indian Highways, Vol. 45 (1), Indian Roads Congress, New Delhi, India, 37-48.
5. Khadiaya, P. and Rastogi, R. (2014), 'Effect of Lane Friction on Speed of Non-Motorized Vehicles', Journal of Institute of Urban Transport, Vol. 13(1), New Delhi, India, 26-38.
6. Ahmad, A., Mahesh, S. and Rastogi, R. (2014), 'Selection of Roundabout Entry Capacity Model for Indian Condition', Journal of Institute of Urban Transport, Vol. 13(1), New Delhi, India, 78-86.
7. Gupta Ankit, Kumar, P. and Rastogi, R. (2014), 'Performance Evaluation and Design Criteria for Low Volume Flexible Pavements", Indian Highways, Vol. 42 (12), Indian Roads Congress, New Delhi, India, 35-42.
8. Rastogi. R., Chandra, S. and Mohan, M. (2014), 'Development of Level of Service Criteria for Pedestrians', Journal of the Indian Roads Congress, Vol. 75-1, Indian Roads Congress, New Delhi, India, 61-70.
9. Rastogi, R., Harikrishna, M. and Pawanram, T. (2014), 'Destination and Leisure Attributes Influencing Leisure Destination Choice', Highway Research Journal, Vol. 7 (1), Jan-June, 2014, Indian Roads Congress, New Delhi, India.
10. Chandra, S., Rastogi, R. and Das, V. R. (2013), 'Crossing Behaviour of Pedestrians at Midblocks in Mixed Traffic', Journal of Indian Roads Congress, Vol 73-4, Indian Roads Congress, New Delhi, India, 100-110.
11. Harikrishna M., Rastogi, R. and Purushothaman, D. (2012), 'Influence of Socio-demographic Attributes in Travel Mode Selection for Single Day Excursion Trips'. Highway Research Journal, Vol 5 (1), Indian Roads Congress, New Delhi, India, 15-31.
12. Chandra, S. and Rastogi, R. (2012), 'Mixed Traffic Flow Analysis on Roundabouts', Journal of Indian Roads Congress, Vol.73 Part 1, Indian Roads Congress, New Delhi, India, 69-77.
13. Kumar P., Rastogi R., Gupta A. and Jain A. (2012), 'Land-Uses and Activity- Based Traffic Forecasting Model'. Indian Highways, 40(4), Indian Roads Congress, New Delhi, India, 25-41.

14. Gupta, A., Kumar, P. and Rastogi, R. (2012), "A Critical Review of Flexible Pavement Performance Models Developed for Indian Perspective", Indian Highways 40(3), Indian Roads Congress, New Delhi, India, 41-60.
15. Chandra, S., Rastogi, R. and Das, V. R. (2012), 'Pedestrian delay during crossing at uncontrolled locations', Indian Highways, 40(2), Indian Roads Congress, New Delhi, India, 33-42.
16. Rastogi, R. and Nayeem, M. R. (2011), 'Effect of Left-Turn Treatments on Left Turning Behaviour in India', Journal of Indian Roads Congress, Vol. 72-2 (July-September), Indian Roads Congress, New Delhi, 135-144,
17. Ilango, T., Chandra S. and Rastogi, R. (2011), 'Comparison of Pedestrian Characteristics of North and South India'. Indian Highways, 39 (4), Indian Roads Congress, New Delhi, 29-37.
18. Rastogi, R. and Meena, U. (2011), 'Inter-city travel characteristics and Travel burden for populations with unequal travel opportunities'. Indian Highways, 39 (3), Indian Roads Congress, New Delhi, India, 25-37.
19. Rastogi, R. and Molla, D. (2010), 'Estimation of Bus Operation handling capacity at an Intercity Bus Terminal – A case study of Roorkee city'. Indian Highways, 38(10), Indian Roads Congress, New Delhi, India, 55-64.
20. Rastogi, R. (2009), 'Study of Unreported Accidents occurring in Kota City.' Indian Highways, 37(8), Indian Roads Congress, New Delhi, India, 23-33.
21. Rastogi, R. (2007), 'Household Survey design – Regional applicability and adaptability'. Indian Highways, 35(5), Indian Roads Congress, New Delhi, India, 25-32.
22. Rastogi, R. (2006), 'A study of accidents in and around Kota City'. Indian Highways, 34(4), Indian Roads Congress, New Delhi, India, 5-16.
23. Rastogi, R. (2006), 'Preferences of vehicle parkers' in Kota City – A stated preference study'. Indian Highways, 34(3), Indian Roads Congress, New Delhi, India, 45-59.
24. Rastogi, R. and Bhatia, H. C. (1998), Parking analyses of Central Business Area of Chandigarh City-A TSM approach. Indian Highways, 26(2), Indian Roads Congress, New Delhi, India, 13-28.
25. Kaushik, N. P. and Rastogi, R. (1997), Road Network in Kota district-A critical study. Indian Highways, 25(9), Indian Roads Congress, New Delhi, India, 35-46.

In Research Reports

1. Highway Research Record No. 27 (2000), A policy sensitive behavioural model of transit access. Highway Research Board, Indian Roads Congress, New Delhi, India, 156.
2. Highway Research Record No. 28 (2001), A policy sensitive behavioural model of transit access. Highway Research Board, Indian Roads Congress, New Delhi, India, 86-90.

As Book Chapter

- Pasha, A. and Rastogi, R. (2022), Air and Water-Based Transportation in India - Identifying the Research Potential. In *Transportation Research in India: Practices and Future Directions*, eds. Akhilesh Kumar Maurya, Lelitha Devi Vanajakshi, Srinivas Arkatkar, and Prasanta Sahu. Springer, Singapore. ISSN: 2363-7633 (under publication)
- Verma, V. and Rastogi, R. (2022), An Overview of Approaches and Methods for Evaluating Public Transport Performance. In *Proceedings of the Fifth International Conference of Transportation Research Group of India*, eds. Manoranjan Parida, Avijit Maji, S. Velmurugan, and Animesh Das, Vol. 3 Ch. 2. DOI: 10.1007/978-981-16-9925-2

In International Conferences

1. Verma, V. K. and Rastogi, R. (2023), 'Analyzing Stakeholders Perceived Hierarchy of Transit Service Quality Attributes using Fuzzy-AHP', In 102nd Annual Meeting of Transportation Research Board, USA, Washington D.C., January 08-12, 2023. (presentation only)
2. Pasha, A. and Rastogi, R. (2022), 'A review of berth allocation problem in bulk terminals', In International Conference Transportation Planning and Research Methodologies for Developing Countries (TPMDC-2022), held at IIT Bombay, India, December 19-22, 2022.
3. Verma, V. K. and Rastogi, R. (2022), 'Measuring Passengers' Perception to Evaluate Competitive Public Transport Corridors – How to Collect Required Data?'. Presented at [4th Bridging Transportation Researchers \(BTR\) Conference](#) held online, August 04-05, 2022.
4. Agarwal, A., Choudhary, P. and Rastogi, R. (2022), 'Impact Assessment of Ring Road in Haridwar and National Highway Connectivity on Haridwar-Rishikesh Metro Ridership'. In 2nd International Conference on Transportation Infrastructure Projects – Conception to Execution (TIPCE2022) held at IIT Roorkee, India, September 14-17, 2022.
5. Verma, V. K. and Rastogi, R. (2022), 'Is CAWI based transit passengers' satisfaction survey feasible in India? – Insights during COVID-19'. In 2nd International Conference on Transportation Infrastructure Projects – Conception to Execution (TIPCE2022) held at IIT Roorkee, India, September 14-17, 2022.
6. Sharma, S. and Rastogi, R. (2022), 'Index-based Evaluation of Active Transport Systems: A Glance at Recent Studies'. In 2nd International Conference on Transportation Infrastructure Projects – Conception to Execution (TIPCE2022) held at IIT Roorkee, India, September 14-17, 2022.
7. Verma, V. K. and Rastogi, R. (2022), 'Measuring Passengers' Perception to Evaluate Competitive Public Transport Corridor – How to Collect Required Data?' In 12th International Conference on Transport Survey Methods (ICTSM), held at Lisbon, Portugal, March 20-25, 2022.

8. Singh, A. Lt. Col., Walia, A., and Rastogi, R. (2021), 'Evaluation of the Resilient Modulus of Subgrade and Granular Layer – A FWD Based Analysis'. In 6th International Conference of Transportation Research Group of India, held at Tiruchirappalli, India, December 14-17, 2021.
9. Verma. V. K., and Rastogi, R. (2019), 'An overview of approaches and methods for evaluating public transport performance'. In 5th Conference of Transport Research Group of India, held at Bhopal, India, December 18-21, 2019.
10. Walia, A., Rastogi, R., Kumar, P. and Jain, S. S. (2019), 'Reviewing Methods for Determination of Dielectric Constant required to Calibrate GPR – Study for Asphalt Layers. In 11th International Conference on Road and Airfield Pavement Technology (ICPT), held at Kuala Lumpur, Malaysia, 10-12 July, 2019.
11. Goyal, T., Kahali, D., and Rastogi, R. (2019), 'Analysis of Pedestrian Movements on Stairs at Metro Stations'. In World Conference on Transport Research - WCTR 2019, held at IIT Bombay, Mumbai, India, 26-31 May 2019.
12. Pasha, A., Rastogi, R., and Mir, M S. (2019), 'Impact of Car Restrictive Policies: A Case Study of Srinagar City in J&K State India'. In World Conference on Transport Research - WCTR 2019, held at IIT Bombay, Mumbai, India, 26-31 May 2019.
13. Kahali, D. and Rastogi, R. (2019), 'Capacity Analysis of Escalators Installed at Metro Rail Stations in India'. In World Conference on Transport Research - WCTR 2019, held at IIT Bombay, Mumbai, India, 26-31 May 2019.
14. Kahali, D. and Rastogi, R. (2019), 'Insight on Flow and Capacity of Escalators at Metro Stations'. In International Conference 'Transportation Infrastructure Projects: Conception to Execution' (TIPCE2019), held at IIT Roorkee, January 7-10, 2019. (Extended Abstract and Presentation only)
15. Verma. V. K., and Rastogi, R. (2019), 'Planning and Optimising Service of a Public Transportation System'. In International Conference 'Transportation Infrastructure Projects: Conception to Execution' (TIPCE2019), held at IIT Roorkee, January 7-10, 2019. (Extended Abstract and Presentation only)
16. Walia, A., Rastogi. R., Kumar. P. and Jain, S.S., 'Pavement Evaluation through Destructive Technique – A Way Forward'. In International Conference 'Transportation Infrastructure Projects: Conception to Execution' (TIPCE2019), held at IIT Roorkee, January 7-10, 2019. (Extended Abstract and Presentation only)
17. Kahali, D., Rastogi, R., & Kumar, B. S. (2018). Understanding Pedestrian Flow Characteristics on Escalators in Developing Countries. Paper Number 18-04650. In 97th Annual Meeting of Transportation Research Board, USA, held at Washington D.C., January 07-11, 2018.

18. Bamney, A. and Rastogi, R. (2017), Studies on Importance and Design Needs for Non-Motorized Trips. In 4th Conference of Transportation Research Group of India, held at IIT Bombay, December 17-20, 2017.
19. Bamney, A. and Rastogi, R. (2017) Modelling Willingness to Use Non-Motorized Modes for Urban Trips: A Case Study. In 22nd International Conference of Hong Kong Society for Transportation Studies: Transport and Society, Hong Kong, December 9-11, 2017.
20. Rastogi, R. (2017) Study on Bicycle Flow in Mixed Traffic – Indian Study. In Velo City 2017 – The Freedom of Cycling, Arnhem-Nijmegen, June 13-16, 2017.
21. Jain, U. and Rastogi, R. (2017). Evaluating Methods of Critical Gap Estimation at Midblock Pedestrian Crossings under Mixed Traffic Conditions. *In proceedings of the 96th Annual Meeting of Transportation Research Board (TRB)*, National Academy of Sciences, Washington D.C., January 08-12, 2017.
22. Jain, U. and Rastogi, R. (2016) Assessment of Appropriate Methods of Critical Gap Estimation for Pedestrians under Heterogeneous conditions. In Transportation Planning and Research Methodologies for Developing Countries (TPMDC-2016), held at IIT Bombay, India, December 19-21, 2016.
23. Bamney A. and Rastogi R. (2016) Willingness to use Non-Motorized Vehicles for Trips in Urban Areas. In Transportation Planning and Research Methodologies for Developing Countries (TPMDC-2016), held at IIT Bombay, India, December 19-21, 2016.
24. Jain, U. and Rastogi, R. (2016) Guidelines for Selection of Appropriate Pedestrian Crossing Facility at Mid-Block Section. In 9th Urban Mobility India Conference – Planning Mobility for City's Sustainability, organised by Institute of Urban Transport, Ministry of Urban Development, GOI, India, held at Gandhinagar, November 8-11, 2016.
25. Illango, T., Rastogi, R. and Chandra, C. (2016) Influence of Bottlenecks on Pedestrian Walking Speed and Pedestrian Behaviour at Sidewalks. In International Conference on emerging Trends in Engineering Research (ICETER'16), held at VELS University, Chennai, India, October 20-21, 2016.
26. Jain, U. and Rastogi, R. (2016) Re-examination of PV^2 criteria for Developing Pedestrian Crossing Warrants. In Proceedings of 14th World Conference of Transport Research (WCTR), Shanghai, China, July 10-14, 2016.
27. Gupta, A., Kumar, P. and Rastogi, R. (2015) Critical Pavement Response Analysis of Low Volume Pavements considering Nonlinear Behaviour of Materials. In proceedings of 11th International Conference on Low-Volume Roads, Pittsburgh, Pennsylvania, July 12-15, 2015.
28. Jain, U. and Rastogi, R. (2015). Development of Pedestrian Crossing Warrants – A Global Perspective and Way Forward. *In Proceedings of the 2nd Conference of Recent Advances in Traffic Engineering (RATE)*, SVNIT Surat, India, July 03-04, 2015.

29. Rastogi, R. and Doley, G. (2015), Sustainable Transport Option for University Campus. As poster presentation in 16th International Conference on Urban Transport entitled 'Energy, Climate and Air Quality Challenges – The Role of Urban Transport Policies in Developing Countries' (CODATU), organised at Istanbul Technical University, Macka campus, Istanbul, Turkey, February 02 – 05, 2015.
30. Mahesh, S., Ahmad, A. and Rastogi, R. (2014), An Approach for the Estimation of Entry Flows on Roundabouts. In Transportation Planning and Research Methodologies for Developing Countries (TPMDC-2014), held at IIT Bombay, India, December 10-12, 2014.
31. Rastogi, R., and HariKrishna, M. (2012) Identification of Decision Paths in Modal Choices: A Structural Equation Modelling Approach. In proceedings of 10th International Conference Transportation Planning and Implementation Methodologies for Developing Countries, IIT Bombay, India, December 12-14, 2012.
32. Praveen, S., and Rastogi, R. (2012) Mode Choice Models Defining Travel to Leisure Destinations. In proceedings of 10th International Conference Transportation Planning and Implementation Methodologies for Developing Countries, IIT Bombay, India, December 12-14, 2012.
33. Patil, A. J., HariKrishna, M. and Rastogi, R. (2011) Mode Choice Modelling in Context of Domestic Leisure Travel. In Proceedings of Conference of Transportation Research Group of India, Bangalore, India, December 7-10, 2011.
34. Jacob, M., HariKrishna, M. and Rastogi, R. (2011) Modelling of Destination Choice for Domestic Leisure Travel Context. In Proceedings of Conference of Transportation Research Group of India, Bangalore, India, December 7-10, 2011.
35. Rastogi, R. and HariKrishna, M. (2011), Identification of Latent Constructs influencing Destination Choice of Domestic Tourists – A Factor Analytic Approach. In proceedings of International Conference on Computers in Urban Planning and Management, Lake Lousania, Alberta, Canada, July 5-8, 2011.
36. Gupta, A., Kumar, P. and Rastogi, R. (2011), Rating Based Approach for Performance Evaluation of Low Volume Roads. In proceedings of International conference on Advances in Materials and Techniques for Infrastructure Development, NIT Calicut, India, June 22-24, 2011.
37. Vivek Durgadath, Chandra, S., and Rastogi, R. (2011), Risk analysis and pedestrian crossing behaviour under varying road width. In proceedings of International conference on Advances in Materials and Techniques for infrastructure development, NIT Calicut, India, June 22-24, 2011.
38. Gupta, A., Kumar, P. and Rastogi, R. (2011), Effect of Environmental Factors on Flexible Pavement Performance Modeling. Proceedings of 8th International Conference on Managing Pavement Assets (ICMPA-2011), Santiago, Chile, November 15-19, 2011.

39. Gupta, A., Kumar, P. and Rastogi, R. (2011), Flexible Pavement Performance Model for Low Volume Roads. Proceedings of 8th International Conference on Managing Pavement Assets (ICMPA-2011), Santiago, Chile, November 15-19, 2011.
40. Rastogi, R. (2010), Planning for Pedestrians. In International workshop Transportation Planning and Management for Developing Countries (TPMDC10)-Sustainable Transportation, IIT Bombay, Mumbai, India, December 15-17, 2010.
41. Harikrishna M. and Rastogi, R. (2010), Attitudinal analysis of factors influencing out of city travel. In proceedings of 12th WCTR (Paper ID 3263R), Lisbon, Portugal, July 11-15, 2010.
42. Vamsheedhar, J., Chandra, S., Rastogi, R. and Das, V. R. (2010), Pedestrian Crossing Behaviour on Midblock Sections. In proceedings of International Conference on Materials Mechanics and Management, College of Engineering Trivandrum, Thiruvananthapuram, Kerala, India, January 14-16, 2010.
43. Gupta, A., Kumar, P. and Rastogi, R. (2010), Application of Finite Element Based Models in Flexible Pavement Performance Analysis. Proc. of International Conference on Developments in Road Transportation (DRT-2010), NIT Rourkela, India, 692-702, October 8-10, 2010.
44. Chandra, S., Rastogi, R. and Das, V. R. (2010), Pedestrian Crossing Behaviour on Midblock Sections. Presented at and in proceedings of International Conference on Advances in Materials, Mechanics and Management, College of Engineering, Trivandrum, Thiruvananthapuram, Kerala, India, January 14-16, 2010.
45. Rastogi, R (2009), 'Scale factor estimation using maximum information procedure'. Transportation Research Board 88th Annual Meeting, National Academy of Sciences, Washington D.C., US, January 11 – 15, 2009
46. Gupta, A., Kumar, P. and Rastogi, R. (2009), Overview of Flexible Pavement Performance Models: An Indian Perspective. Proc. of International Conference on Pavement Engineering (ICPE-2009), College of Engineering and Technology, B.P.U.T. Bhubaneswar, India, 14-29.
47. Gupta, A, Kumar P, and Rastogi R. (2009), Overview of Flexible Pavement Performance Models: An Indian Perspective'. In proceedings of International Conference on pavement Engineering (ICPE-09), College of Engineering and Technology Bhubaneswar, Orissa, India, Feb 14-15, 2009.
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49. Gupta, A. Rastogi, R. and Kumar, P. (2008), 'Flexible Pavement Performance Models: A Review'. International Conference and Workshop on Transportation Planning and Management for Developing Countries (TPMDC08), IIT Bombay, December 3-6, 2008.

50. Chandra, S., Rastogi, R. and Sikdar, P. K. (2008), 'Empirical Method for estimating Turning Counts from Link Flows.' International Conference and Workshop on Transportation Planning and Management for Developing Countries (TPMDC08), IIT Bombay, December 3-6, 2008.
51. Rastogi, R. (2008), Validating Stated Parking Duration of drivers in Kota City, India. In International Conference on Transport Infrastructure, held at Beijing, China, April 24-26, 2008.
52. Rastogi, R. (2008), Development of Practical Sustainability Indicator for MPOs. In International Conference on Transport Infrastructure, held at Beijing, China, April 24-26, 2008.
53. Rastogi, R. (2008), Issues in Data Collection and Non-Motorized Transport Planning. In Indo-US Symposium on 'Mass Transit and Travel Behaviour Research' (MTTBR 2008), held at IIT Guwahati, India, Feb. 12-16, 2008.
54. Rastogi, R., Chandra S. and Illango, T. (2008), Pedestrian Needs and Probable Solutions – An Indian Perspective. In Indo-US Symposium on 'Mass Transit and Travel Behaviour Research' (MTTBR 2008), held at IIT Guwahati, India, Feb. 12-16, 2008
55. Rastogi, R. (2004), Stated Preference survey: Experience from developing country. Paper on CD ROM of Seventh International Conference on Travel Survey Methods held at Costa Rica during August 1-6, 2004.
56. Rastogi, R. (2004), Household Survey Design: Regional Applicability and Adaptability. Paper on CD ROM of Seventh International Conference on Travel Survey Methods held at Costa Rica during August 1-6, 2004.
57. Rastogi, R. (2004), Parking policy options in residential cum shopping area: A case study. Paper accepted and in CD Proceedings of Xth World Conference on Transport Research held at Istanbul, Turkey, July 4-8, 2004.-
58. Rastogi, R. (2004), Policy sensitive behavioural analysis for bicycle promotion using mixed modeling. Presented at and in proceedings of *The International Conference on Transportation Systems Planning and Operation (TRANSPO 2004)*, held at Indian Institute of Technology Madras, Chennai, India, February 18-20, vol. I, 21-30.
59. Rastogi, R. and K. V. Krishna Rao (2004), Identifying policies for promoting non-motorized access modes: A case study. Presented at and in proceedings of *The International Conference on Transportation Systems Planning and Operation (TRANSPO 2004)*, held at Indian Institute of Technology Madras, Chennai, India, February 18-20, vol. I, 121-130.
60. Rastogi, R. (2002), Problems in the collection and dissemination of accident information – A case study. In Proceedings of *the 10th World Conference on Transport and Urban Development (CODATU X)*, Lome, Republic of Togo, Africa, November 12-15.
61. Rastogi, R. and K. V. Krishna Rao (2001), Modelling transit access behaviour using revealed preference and stated preference information. Presented at and in CD-ROM

Proceedings of *The 9th World Conference on Transport Research*, Seoul, Korea (South), July 22-27.

62. Rastogi, R. (1998), Low Cost Traffic System Management options for main traffic corridor in medium sized Indian city-A case study. In Proceedings of *the International Seminar on Highway Safety, Management and Devices*, New Delhi, India, November 6-7, I-151 – I-160.

In National Conferences / Courses

1. Verma, V. K. and Rastogi, R. (2022), 'Transit Performance Evaluation: Approaches and Way Forward', in 81st Annual Session of Indian Roads Congress, held at Lucknow, October 08-11, 2022. (Presentation only)
2. Yadav, V. and Rastogi, R. (2022), 'Pedestrian Level-of-Service: A Review of Factors and methodology', In proceedings of 4th National Conference on Recent Advances in Traffic Engineering (RATE2022), SVNIT, Surat, India, November 11-12, 2022.
3. Jain, U. and Rastogi, R. (2018), 'Development of Guidelines for Pedestrian Crossing Facilities', Journal of Indian Roads Congress, Paper No. 688, in 79th Annual Session of Indian Roads Congress, held at Nagour, November 22-25, 2018.
4. Kahali, D. and Rastogi, R. (2017), Preliminary Analysis of Pedestrian Flow on Stairs at Metro Terminals. In National Conference on Roads and Transport (NCORT-2017), IIT Roorkee, India, October 14-15, 2017.
5. Jain, U., Singh, M. and Rastogi, R. (2017), Revision of PV based Pedestrian Crossing Warrants in India using Clustering Technique. In National Conference on Roads and Transport (NCORT-2017), IIT Roorkee, India, October 14-15, 2017.
6. Jain, U., Singh, M., Vijay, R., Raj, R., Verma, R. and Rastogi, R. (2016). Guidelines for Selection of Appropriate Pedestrian Crossing Facility at Mid-Block Sections. *In proceedings of the 9th Urban Mobility India Conference*, Gandhinagar, India, November 08-11, 2016.
7. Jain, U. and Rastogi, R. (2015), Need of Pedestrian Crossing Warrants in India. In proceedings of 2nd National Conference on Recent Advances in Traffic Engineering (RATE), SVNIT, Surat, India, July 03-05, 2015.
8. Rastogi, R. (2012). Pedestrian Mobility and Safety: Issues and Design Improvements. Presented in Half day seminar on 'Planning for Pedestrian Mobility and Safety', organized by Department of Civil Engineering, IISc Bangalore in association with Transportation Research Group of India, March 24, 2012.
9. Rastogi, R. (2012). Parametric study of pedestrian speeds at midblock crossings. Presented in national symposium on 'Design of roads for disabled pedestrians', organized by SDRS and held at ISRC, New Delhi, India, March 1-4, 2012, pp. 73.
10. Harikrishna, M. and Rastogi, R. (2011), Latent factors in destination choice selection: An exploratory study. In proceeding of conference on Sustainable Urban and Transportation

- Planning: Issues and Management Strategies, SVNIT Surat, India, July 08-10, 2011, pp. 202-209.
11. Gupta, A., Kumar, P. and Rastogi, R. (2010), Field and Laboratory Investigations of Subgrade Layer of Low Volume Roads. Proceedings of GeoTrendz, Indian Geotechnical Conference (IGC-2010), Indian Institute of Technology Bombay, India, vol. 2, 1019-1022, December 16-18, 2010.
 12. Gupta, A., Kumar, P. and Rastogi, R. (2010), Field and Laboratory Investigations of Pavement Layers of Low Volume Roads. Proceedings of Conference on Infrastructure, Sustainable Transportation and Urban Planning (CISTUP-2010), Indian Institute of Science, Bangalore, India, 33-34, October 18-20, 2010.
 13. Rastogi, R. (2009), Stated Preference Data Collection and Analysis. In proceedings of workshop on Recent Trends in Sustainable Transportation Planning, Centre for Infrastructure, Sustainable Transportation and Urban Planning (CiSTUP), IISc, Bangalore, Dec 12-14, 2009, pp. 258-267.
 14. Rastogi, R. (2009), Sustainable Transportation: NMT Options and Policies. In proceedings of workshop on Recent Trends in Sustainable Transportation Planning, Centre for Infrastructure, Sustainable Transportation and Urban Planning (CiSTUP), IISc, Bangalore, Dec 12-14, 2009, pp. 223-232.
 15. Gupta, A., Kumar, P. and Rastogi, R. (2009), Rating Based Performance Evaluation of Low Volume Hill Roads. Proc. of Uttarakhand State Science and Technology Congress, 4th USSTC, GB Pant University of Agriculture and Technology, Pantnagar, India, 191, November 10-12, 2009.
 16. Gupta, A., Kumar, P. and Rastogi, R. (2009), Review of Finite Element based studies in Flexible Pavement Performance Analysis. In proceedings of Civil Engineering Conference (CEC-2009) – Innovations without Limits, NIT Hamirpur, Himachal Pradesh, India, September 18-19, 2009.
 17. Jain, A, Vamsheedhar, J. And Rastogi, R. (2009), Pedestrian Crossing Behaviour Analysis at Intersections: A Case Study of Roorkee City. In proceedings of Student Symposium on 'Research in Civil Engineering', IIT Madras, India, March 5-6, 2009.
 18. Rastogi, R. (2007), Working with revealed preference and stated preference data for analyzing travel choices. Delivered at and in lecture notes of short term training programme on Recent advances in transportation planning and traffic engineering, held at IIT Guwahati, January 15-19, 2007.
 19. Rastogi, R. (2007), Sustainable transportation: Need for promoting walk and bicycle. Delivered at and in lecture notes of short term training programme on Recent advances in transportation planning and traffic engineering, held at IIT Guwahati, January 15-19, 2007.
 20. Rastogi, R. (2006), Experimental Design for Incorporating Consumer Choices in Product Development. Presented at and in proceedings of All India Seminar on Advances in

- Product Development, organised by Institution of Engineers (Allahabad Chapter) and MNNIT, Allahabad, February 16-18, 2006.
21. Rastogi, R. (2005), Discrete Choice Analysis for Modal-Split Models. Delivered at and in lecture notes of short-term course on 'Emerging Trends in Transportation Engineering' organised by L. D. College of Engineering, Ahmedabad, May 30th – June 4th, 2005.
 22. Rastogi, R. and R. C. Gaur (2003), Energy Conservation through Solar Passive Architecture. Presented at and in Proceedings of *Seminar on Energy Conservation* organised by Institution of Engineers (India) Kota Local Chapter, February 28 – March 1, 2003.
 23. Rastogi, R. and K. V. Krishna Rao (2002), Collection of stated information for prediction of travel behaviour. Presented at and in proceedings of *the National Seminar on Road Transportation in India: Emerging trends and techniques (ROTRAN 2002)*, IIT Kharagpur, India, vol. II, 4.37 – 4.48, September 12-13, 2002.
 24. Rastogi, R. and K. V. Krishna Rao (2000), Economic importance of non-motorised modes for sustainable development. Presented at and in proceedings of *the National Seminar on Renewable Energy Sources, Environment Pollution and Sustainable Development, RESEPSD-2000*, Kota, January 27-29, 84-93.
 25. Rastogi, R. (1998), Effect of localized factors on traffic noise-A review. In Proceedings of *the 14th National Convention of Environmental Engineers* entitled 'Environmental Protection–Need of the hour', The Institution of Engineers (India) AP State center, Hyderabad, India, August 7-9.
 26. Rastogi, R. (1997), Quality up-gradation of technical education system through policy development and retrospection. In Proceedings of *the 26th ISTE Annual convention*, MREC, Jaipur, India, January 4-6.
 27. Rastogi, R. (1996), Network planning of roads-Need for reappraisal of strategies. In Proceedings of Seminar on *Perspective Planning for Road Development in India*, Indian Roads Congress, New Delhi, India, October 7-8, I-193 – I-201.
 28. Rastogi, R. (1996), Sealant for Joints. Delivered at and in lecture notes of short-term course on '*Deterioration and Repair of Concrete Structures*', Engineering College Kota, Rajasthan, India, February 5-7, 42-52.
 29. Rastogi, R. (1996), Testing of Road Materials and I. S. code Specifications. Delivered at and in lecture notes of short-term course on '*Civil Engineering Materials*' Testing', Engineering College Kota, Rajasthan, India.

IV. Book Authored

Chandra, S., Rastogi, R. and Shukla, M. (2022), ***Manual for Testing of Highway Materials***, Narosa Publishing House Pvt. Ltd., India. Pages 170. ISBN 978-81-8487-726-7

V. Papers / Book Refereed / Edited -

Book Edited

Proceedings of the Fifth International Conference of Transportation Research Group of India, Lecture Notes in Civil Engineering, eds. Akhilesh Kumar Maurya, Rajat Rastogi, Bhargab Maitra and Animesh Das, Springer Singapore, doi. 10.1007/978-981-16-8259-9

Railway Engineering published by Oxford University Press, authored by Satish Chandra and M M Agarwal.

Papers Referred in -

Accident Analysis and Prevention

Current Science

IATSS Research

Indian Roads Congress, New Delhi, India.

International Journal of Pavement Engineering, T&F

Journal of Advanced Transportation

Journal of Transportation Engineering (Now Part-A Systems), ASCE

Journal of Transportation Safety and Security

Journal of Urban Planning and Development, ASCE

Korean Society of Civil Engineers

Safety Science

Tourism Management

Transport – Journal of Institution of Engineers

Transportation

Transportation in Developing Economies

Transportation Letters – International Journal of Transportation Research

Transportation Research, Part A and D

Papers of Conference of Transportation Research Group of India – 2011, 2013, 2015

Paper of Transportation Research Board, National Academy of Sciences, Washington D.C., US

Papers of International Workshop and Conference TPMDC, IIT Bombay, India

VI. Conference / Annual Session / Workshops / Courses Attended

International Conferences / Workshops / Courses

1. 2nd International Conference on 'Transportation Infrastructure Projects – Conception to Execution' (TIPCE 2022) held at IIT Roorkee, India, September 14-17, 2022.
2. 6th Conference of Transportation Research Group of India (CTRG) 2021, held at Tiruchirappalli, December 14-17, 2021.

3. 5th Conference of Transportation Research Group of India (CTRG) 2019, held at Bhopal, December 18-21, 2019.
4. International Conference 'World Conference on Transport Research' held at IIT Bombay, India, May 25-30, 2019.
5. International Conference on 'Transportation Infrastructure Projects – Conception to Execution' (TIPCE 2019) held at IIT Roorkee, India, January 07-10, 2019.
6. International Conference on 'Geomatics in Civil Engineering' (ICGCE-2018), held at the Department of Civil Engineering, Indian Institute of Technology Roorkee, Uttarakhand, India, April 5-6, 2018.
7. International Conference on 'Advances in Construction Materials and Structures' (ACMS-2018), held at the Department of Civil Engineering, Indian Institute of Technology Roorkee, Uttarakhand, India, March 7-8, 2018.
8. 4th Conference of Transportation Research Group of India (CTRG) 2017, held at IIT Bombay, December 17-20, 2017.
9. 22nd International Conference of Hong Kong Society of Transportation Systems (HKSTS) 2017, held at Hong Kong, December 9-11, 2017.
10. International Conference VeloCity-2017, Held at Nijmegen and Arnhem, The Netherlands, June 13–16, 2017.
11. International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2016), held at IIT Bombay, Mumbai, India, December 19-21, 2016.
12. 20th International Conference on Hydraulics, Water Resources and River Engineering (HYDRO 2015), held at IIT Roorkee, Uttarakhand, India, December 17-19, 2015.
13. 16th International conference on Urban Transport entitled 'Energy, Climate and Air Quality Challenges: The Role of Urban Transport Policies in Developing Countries (CODATU 2015)', held at ITU Macka Campus, Istanbul, Turkey, February 2 – 5, 2015.
14. International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014), held at IIT Bombay, Mumbai, India, December 10-12, 2014.
15. Executive course on Development and Transportation, Aalto University Summer School on Transportation, Aalto University, Otaniemi, Espoo, Finland, August 11 – 15, 2014.
16. International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2012), held at IIT Bombay, Mumbai, India, December 12-14, 2012.
17. International Conference on Computers in Urban Planning and Management (CUPUM-2011), held at Lake Louise, Calgary, Alberta, Canada, July 5-8, 2011. (organized by University of Calgary)

18. International Workshop on Transportation Planning and Implementation Methodologies for Developing Countries: Sustainable Transportation (TPMDC 2010), held at IIT Bombay, Mumbai, India, December 15-17, 2010.
19. The 88th Annual Meeting of Transportation Research Board, USA, held at Washington, D.C. during January 11-15, 2009.
20. International Conference on Best Practices to Relieve Congestion on Mixed-traffic (BPRCM) Urban Streets in Developing Countries, IIT Madras, Chennai, India, September 12-14, 2008.
21. First Indo-US symposium on Mass Transit and Travel Behaviour Research (MTTBR 2008), held at IIT Guwahati, Assam, India, February 12-16, 2008.
22. The 6th International Workshop on Transportation Planning and Implementation Methodologies for Developing Countries: *Transportation Infrastructure Systems* (TPMDC-2004) held at IIT Bombay, Mumbai, India, December 16-18, 2004.
23. International Conference on Transportation Systems Planning and Operation (TRANSPO 2004), held at Indian Institute of Technology Madras, Chennai, India, February 18-20, 2004. Attended and *presented* papers.
24. International course on Transportation Planning and Road Safety held at IIT Delhi, India, in association with INRETS, France, December 14 – 21, 2002.
25. International Conference on Transport Survey Quality and Innovation held in Kruger National Park, South Africa, August 5-10, 2001. Attended as *invited delegate* from India.
26. The 9th World Conference on Transport Research held at Seoul, Korea (South), July 22-27, 2001. Attended and *presented* a paper.
27. The 4th International Workshop on Transportation Planning and Implementation Methodologies for Developing Countries: *Transportation Infrastructure* (TPMDC-2000) held at IIT Bombay, Mumbai, India, December 5-7, 2000. Attended and *Assisted* in organizing it.
28. The 3rd International Workshop on Transportation Planning and Implementation Methodologies for Developing Countries: *Emerging Trends* (TPMDC-98) held at IIT Bombay, Mumbai, India, December 9-11, 1998. Attended and *Assisted* in organizing it.

National Conferences / Seminars / Workshops / Courses

1. 81st Annual Session of Indian Roads Congress held at Lucknow, Uttar Pradesh, India from October 08 – October 11, 2022.
2. One-day Engineers Training Programme on 'Use of New Materials in Rural Roads' for engineers of MPRRA, Bhopal at IIT Roorkee, January 01, 2021
3. National Conference on Roads and Transport (NCORT-2017), held at IIT Roorkee, India, October 14-15, 2017.
4. National Conference titled "Numerical Modeling in Geomechanics" CoNMiG-2017, held at IIT Roorkee, March 03-04, 2017, *attended as delegate*.

5. 8th Task Force Committee Meeting of 'Development of Indian Highway Capacity Manual (Indo-HCM), Sponsored by CSIR-CRRI, held at IIT Roorkee, September 9-10, 2016.
6. National Conference on Fifteen Years of PMGSY (FYPMGSY), Sponsored by NRRDA, Ministry of Rural Development, GOI, held at IIT Roorkee, August, 6-7, 2016.
7. Workshop on Innovative Construction Machinery, Materials and Methods (ICMMM-2015), held at IIT Roorkee, October 26-27, 2015. *Attended as delegate*
8. National Conference on Transportation and Water Resource Engineering (NCTWE) 2015, L D College of Engineering, Ahmedabad, April 24-25, 2015. *Attended as an expert.*
9. 75th Annual Session of Indian Roads Congress held at Bhubaneswar, Odisha, India from January 18 – January 22, 2015, *Attended and presented a paper.*
10. National Symposium on High Speed Rail at SJCE, Mysore, May 9-10, 2013. *Attended as an Expert member.*
11. 73rd Annual Session of Indian Roads Congress held at Coimbatore, Tamil Nādu, India from January 7 – January 11, 2013, *Attended and presented a paper.*
12. Half day seminar on 'Planning for Pedestrian Mobility and Safety', organized by Department of Civil Engineering, IISc Bangalore in association with Transportation Research Group of India, March 24, 2012, *Attended and Presented a paper.*
13. All India Seminar on 'Advances in Product Development', organized by Institution of Engineers (Allahabad Chapter) and MNNIT, Allahabad, February 16-18, 2006. *Attended and presented a paper.*
14. QIP short-term summer course on 'Recent Developments in Urban Transportation Systems Planning' held at IIT Bombay, July 21-25, 2003.
15. ISTE-AICTE short-term summer course on 'Seismic Design and Control Methods' held at MNIT, Jaipur, Rajasthan, India, June 30 – July 5, 2003.
16. Seminar on 'Energy Conservation', organised by Institution of Engineers (India) Kota Local Chapter, February 28 – March 1, 2003. *Attended and presented a paper.*
17. ISTE-AICTE short-term winter course on 'Recent Advances in Technology for Waste to Energy Conversion', held at MNIT, Jaipur, Rajasthan, December 23, 2002 – January 3, 2003.
18. National Seminar on 'Road Transportation in India: Emerging trends and techniques (ROTRAN 2002)', held at IIT Kharagpur, India, September 12-13, 2002. *Attended and presented a paper.*
19. Workshop on 'Innovation and Optimization using TRIZ and Taguchi Techniques', held at IIT Bombay, Mumbai, India, April 28-29, 2001.
20. Indian Geotechnical Conference, IGC – 2000 'The Millennium Conference' held at IIT Bombay, Mumbai, India, December 13-15, 2000.

21. All India Seminar on 'Urban Mass Transportation Systems', organized by The Institution of Engineers (India) Mumbai Local Chapter, India, September 15-16, 2000. Attended and *Assisted* in organizing sessions.
22. National seminar on 'Renewable Energy sources for Environmental Protection and Sustainable Development' held at Engineering College Kota, Rajasthan, India, January 28-29, 2000. Attended and *presented* a paper.
23. The 61st annual session of Indian Roads Congress held at Madurai, Tamilnadu, India, January 4-7, 2000.
24. The 11th Indian Engineering Congress on 'Innovation: Technology for the Next Millennium', organized by Institution of Engineers (India) Bangalore Local Chapter, India, December 20-24, 1996.
25. ISTE short-term summer course on 'Environmental Management of Urban Areas', held at MREC, Jaipur, Rajasthan, June 26 – July 8, 1995.
26. ISTE short-term summer course on 'Management, Operation and Control of Traffic in City Center', held at SVREC, Surat, Gujrat, June 5–17, 1995.
27. ISTE short-term summer course on 'Ecology, Ecosystem and Eco-management', held at DYPCE, Pune, Maharashtra, May 30 – June 11, 1994.
28. ISTE short-term winter course on 'Pump and Valve Selection for Optimum Performance', held at MNREC, Allahabad, Uttar Pradesh, December 27, 1993 – January 8, 1994.

VII. Thesis Work Done / Guided (Transportation Studies Undertaken)

Research Work Done

1. Rastogi, R. (1990) 'Studies of traffic in Chandigarh City center – Parking characteristics of main shopping complex' Unpublished M. E. thesis submitted to Punjab University Chandigarh, India.
2. Rastogi, R. (1997) 'The state of ambient air quality in Kota City' Unpublished Post Graduate Diploma thesis submitted to Indian Institute of Ecology and Environment, New Delhi, India.
3. Rastogi, R. (2001) 'A policy sensitive behavioral model of transit access' Unpublished Ph.D. thesis submitted to Indian Institute of Technology Bombay, Powai, Mumbai, India.

Research Work Guided

1. T. Illango, 'Modelling of Pedestrian Behaviour in Urban Areas,' Awarded 2011. Co-supervisor Prof. Satish Chandra.
2. Vivek R. Das, "Crossing Behaviour of Pedestrian in Mixed Traffic Conditions". Awarded 2012. First supervisor Prof. Satish Chandra.
3. Ankit Gupta, 'Structural and Functional Performance Modeling of Low Volume Roads'. Awarded 2012. First supervisor Prof. Praveen Kumar.
4. Harikrishna, M., "Behavioural Modelling of Leisure Travel". Awarded 2013.

5. Abdulla Ahmad, 'Development and Calibration of Entry Capacity Model of Modern Roundabouts', Awarded 2016.
6. Udit Jain, 'Development of Guidelines for Pedestrian Crossing Facilities', Awarded 2017.
7. Anish Kumar Bharti, 'Travel Time Reliability for Performance measurement of Urban and Inter-urban Roads', Awarded 2018, Co-supervisors Satish Chandra and Ch. Ravi Sekher, CRRI.
8. Dharitri Kahali, 'Planning and Design of Escalators', Joined December 2015.
9. Ashish Walia, 'Development of Pavement Temperature Correction Model for Flexible Pavement', Joined July 2017, Co-supervisor Praveen Kumar and S S Jain
10. Vishwajeet Kishore Verma, 'Performance Evaluation of Public Transport Systems', Joined December 2017.
11. Adnan Pasha, 'Operational Optimization of Inland Waterways Terminals in Developing Countries', Joined January 2019.
12. Sakshi Sharma, 'Development of Sustainability Index for NMT-Pedestrian Facilities in Developing Countries', Joined July 2019. Co-supervisor Prof. Debasis Basu, IIT Bhubaneshwar.
13. Suvem Banerjee, 'The Role of Information in Planning Transients' Evacuation in Cyclone-Prone Areas', Joined July 2019. Co-supervisor Indrajit Ghosh.

Thesis / Project Guided: Second Degree Level

1. Mohita Bhaduri (2022), 'Impact of traffic on surrounding air quality – A case study of Bus terminal and major intercity bus stops in Jaipur', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
2. Alok Singh (2021), 'Evaluation of resilient modulus of subgrade and granular layers through FWD based analysis', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
3. Govind Ram (2021), 'Optimisation of freight distribution network', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
4. Prashant Kumar (2021), 'Examining satisfaction of user clusters with public transport service quality', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
5. Chilot Tsedalu Workineh (2020), 'Alternate strategies for improvement of traffic circulation through an uncontrolled intersection', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
6. Aychew Mhiret Moges (2020), 'Speed Analysis and its Relation with Geometric Attributes of Roads', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
7. Pranshul Sharma (2020), 'Estimation of Freight Transportation Demand – Study of Inland Waterways', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.

8. Heena Rawat (2020), 'Identification of Influencing Factors for Evaluation of Transit Performance', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
9. Abhishek Kumar Singh (2020), 'A Study on Pedestrian Crossing Behaviour at Unsignalised Intersection', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
10. Ashish Bhagoria (2019), 'Development of Criteria for Design of Auxiliary Lanes', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
11. Prakher Agarwal (2018), 'Development of Traffic Circulation Plan for Roorkee City', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
12. Tinku (2017), 'Analysis of Pedestrian Flows on Facilities connecting different Levels', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
13. Sachendra Singh (2017), 'Study on Pedestrian Flows during Events', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
14. Chandra Shekhar Prajapat (2017), 'A Study on Freight Transportation in Urban Areas', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
15. Adnan Pasha (2017), 'Study on the Effect of Car Restrictive Policies on Travel Demand', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
16. Prateek Jain (2016), 'Flow Characteristics of Motorized Three Wheelers', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
17. Manjit Singh (2016), 'Re-examining Function PV for deciding Pedestrian Crossing Facility', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
18. Rohan Sharma (2016), 'Flow Characteristics of Motorized Two Wheelers', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
19. Suryansh Gupta (2016), 'Effect of mixed traffic on saturation flows', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
20. Anshu Bamney (2015), 'Study on willingness to use non-motorized modes for trips in urban areas', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
21. Mohammad Wasim Akhtar (2015), 'Effect of physical factors of gap acceptance on roundabouts', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
22. Prasham Khadaiya (2014), 'Flow characteristics of non-motorized traffic', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
23. Srinath Mahesh (2014), 'Influence of mixed traffic flows on capacity of a roundabout,' M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
24. Mayank Sharma (2014), 'Willingness to shift to mass rapid transit system: A case study of Jaipur,' M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
25. T N Teja (2013), 'Development of Criteria for Provision of Pedestrian Crossing Facilities', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.

26. Pawar Sachin (2013), 'Characterization of Peak-hour Traffic', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
27. Sudhir Kumar Meshram (2013), 'A Study of Commercial vehicle Flows at Intersections', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
28. T N Teja (2012), 'Walkability Index of urban areas', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
29. Pawar Sachin (2012), 'Estimation of Peak-hour factor for major roads in Roorkee city', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
30. Sudhir Kumar Meshram (2012), 'Evaluation of a traffic calming technique', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
31. Balkeshwar Mishra (2012), 'Pedestrian flow on stairs', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
32. Ganesh Dolly (2012), 'A policy sensitive model of modes chosen in campus areas', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
33. S. Praveen (2012), 'Combined logit model of destination and mode choice for leisure travel', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
34. Abhishek Rajput (2011), 'Pedestrian and Vehicle Routing Plan for IIT Roorkee campus', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
35. Amit K. Damde (2011), 'Analysis of destination image and travellers perception', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
36. Balkeshwar Mishra (2011), 'Planning for parking of vehicles in shopping area', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
37. Mani Jacob (2011), 'Development of a destination choice model for leisure trips', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
38. Ajit J. Patil (2011), 'Development of a mode choice model for leisure trips', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
39. Chelluri Siakrishna (2011), 'Estimation of LOS at pedestrian crossings on mid blocks,' M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
40. Amol A. Naik (2011), 'Pedestrian crossing behaviour at intersections', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
41. Mani Jacob (2010), 'Volume and Speed Analysis in Old Roorkee City', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
42. Amol A. Naik (2010), 'Parking Assessment in Hostel and Residential Areas of IIT Roorkee Campus', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
43. Ajit J. Patil (2010), 'Access Mode Choice Analysis for Railway Station, Roorkee City', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
44. Akash Chevercode Prakasan (2010), 'Study of Accesses to Educational Institutes'. M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.

45. Bhargav Ruparathi (2010), 'Analysis of Risk during Pedestrian Crossing'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
46. Krishna Mohan Meena (2010), 'Modeling Mode Choices for Inter-city Travel'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
47. Mithun Mohan (2010), 'Development of Level of Service criteria for pedestrian movements'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
48. More Prasad Jagannath (2010), 'Study of turning movements at uncontrolled intersections'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
49. Patil Kiran Prakash (2010), 'Effect of geometry on capacity of a traffic rotary'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
50. Pawan Ram Thirumalashetty (2010), 'Analysis of travelers' choices associated with leisure trips'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
51. Bhargav Ruparathi (2009), 'Bicycle movements in a class-I city', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
52. Patil Kiran Prakash (2009), 'Safety audit of a segment of a hill road', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
53. Pawan Ram Thirumalashetty (2009), 'Estimation of parking needs within campus area of IIT Roorkee', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
54. Pushpendra Singh (2009), 'Non-motorized movements in campus area of IIT Roorkee', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
55. Umakant Meena (2009), 'Long Distance Travel patterns in Institutional Areas'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
56. J. Vamsheedhar (2009), 'Pedestrian Crossing Behaviour under Uncontrolled Traffic Condition'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
57. Mukesh Kumar Jain (2009), 'Spatial-Temporal Analysis of Human Activities using GIS'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
58. Akash Jain (2009), 'Land-uses and Activity Based traffic Forecasting Model'. M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
59. Akash Jain (2008), 'Pedestrian Crossing Behaviour Analysis', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
60. A. S. Subramanyam (2008), 'Road Safety Audit for IITR Campus', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
61. Md. Rezwan Nayeem (2008), 'Development of a Policy Sensitive Model of Transit Access using ANN', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
62. V. NarayanaMurthy Made (2008), 'Development of Access Modal Split models with Behavioural Intent', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.

63. Kotkar Kishore Luxman (2008), 'Pedestrian Flow Characteristics in a medium sized city', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee.
64. Daniel Molla (2007), 'Modeling of Long Distance Bus Arrival and Departures at a Bus Station', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
65. Md. Rizwan Nayeem (2007), 'Study of Turning Behaviour of Drivers', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
66. V. NarayanaMurthy Made (2007), 'Optimization of railway station area processing time', M. Tech. Project submitted to Department of Civil Engineering, IIT Roorkee.
67. Biswajit Das (2007), 'Traffic Flow Analysis of Roundabouts', M. Tech. Dissertation submitted to Department of Civil Engineering, IIT Roorkee, Co-supervisor – Prof. Satish Chandra.

Project Guided – First Degree Level

1. 'Willingness and Adoptability of Motorised Vehicle Free Day in Campus Areas', B. Tech. Minor Project submitted by Sahil Yadav, Piyush Yadav, Poorva Kumari Meena, Priyanka, Keshav Bidawatka, Third year students, Department of Civil Engineering, IIT Roorkee, Uttarakhand, India. (June 2021)
2. 'Accident Analysis and Safety Measures', B. Tech Minor project, Submitted by Arihant Rokadia, Ashish Kumar, Sonu Kumar Patel and Shubhan Kumar, Third year students, Department of Civil Engineering, IIT Roorkee, Uttarakhand, India. (May 2019)
3. 'Development of a Ridesharing Application for Intracity Transportation', B. Tech Minor project, Submitted by Tushar Gosain and Tushar Mehra, Third year students, Department of Civil Engineering, IIT Roorkee, Uttarakhand, India. (May 2018)
4. 'Analysis and Modelling of Air Travel Demand in India', B. Tech Minor project, Submitted by Rahul Bansal. Rahul and Hanut Sharma, Third year students, Department of Civil Engineering, IIT Roorkee, Uttarakhand, India. (May 2018)
5. 'Analysis of Auxiliary Lanes', B. Tech Minor project, Submitted by Abhishek Jorwal, Aditya Kanwat, Ankit Goyal and Anup Mittal, Third year students, Department of Civil Engineering, IIT Roorkee, Uttarakhand, India. (May 2018)
6. 'Design of Koteswar Hydro Power Project', B. Tech Final Year project, Department of Civil Engineering, IIT Roorkee, Uttarakhand, India. (May 2018)
7. 'Quantification of Fuel Consumption on Urban Roads', Project report submitted by Rahul Bansal, Tushar Mehra and Vaibhav Jindal, Third year Civil Engg students, submitted under SURA to SRIC office IIT Roorkee, Uttarakhand, India (December 2017).
8. 'Study of Acceleration and Deceleration Characteristics at Roundabouts', B. Tech Minor project, Submitted by Naman Agarwal, Sidharth Rawat, Mayank Kumar Yadav and Vishal Kumar, Third year students, Department of Civil Engineering, IIT Roorkee, Uttarakhand, India. (May 2017)

9. 'Development of Pedestrian Crossing Facility Criteria based on PV²', Project report submitted by Rishabh Vijay, Rishiraj and Robin Verma, Final year Civil Engg students, submitted under SURA to SRIC office IIT Roorkee, Uttarakhand, India (2016).
10. 'Analysis and Design of New Building Complex in Niti agar Area of IIT Roorkee Campus', Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2015).
11. 'Intracity Traffic Study of Roorkee', Unpublished final year mini project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2014).
12. 'Design of a Bridge for a City', Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2013).
13. 'Analysis of Traffic on National Highway section passing through Roorkee city', Unpublished final year mini project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2012).
14. 'Planning for Non-Motorized Traffic in Campus Area', Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2011).
15. 'Development of Pedestrian Network for Roorkee City using GIS' Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2011).
16. 'Sensor based Street Lighting System' Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2010).
17. 'Design of an isolated intersection' Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2010).
18. 'Design of Hill Roads: Road Safety Audit and Slope Stability Analysis' Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2009).
19. 'Application of Nailing Technique in Transportation' Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2009).
20. 'Modifying Pavement Characteristics using Crushed Concrete'. Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2008).
21. 'Speed Flow Characteristics of NH Section using GIS Platform' Unpublished final year project report, Civil Engineering Department, IIT Roorkee, Uttarakhand, India (2008).
22. 'Speed analysis on bridges over Ganga and Yamuna in Allahabad City' Unpublished final year project report, Civil Engineering Department, M.N.N.I.T., Allahabad, UP, India (2006).
23. 'Analyzing parking options in shopping areas of Kota City' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (2003).
24. 'Accident analysis of unreported accidents in Kota City' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (2003).
25. 'Studies of parking characteristics of walled city of Kota' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (2002).

26. 'Socioeconomic development and road lengths in four districts of Rajasthan – A case study' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1998).
27. 'Speed studies on a section of NH-12 passing through municipal limit of Kota' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1997).
28. 'Evaluation and design of major rotaries and roundabouts in Kota city' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1996).
29. 'Computer aided analysis of road accidents' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1996).
30. 'Planning and designing of a section of Kota bypass connecting Kota-Jabalpur highway (NH-12) with Kota-Rawatbhata road (SH)' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1995).
31. 'An analysis of road accidents on major transportation corridors in and around Kota city' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1995).
32. 'Soil investigation and pavement design for residential complex in Kunhari area' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1994).
33. 'NH-12 Bypass Road connecting Anantpura check post on Jabalpur-Kota road to Bawari check post on Kota-Jaipur road' Unpublished final year project report, Civil Engineering Department, Engineering College Kota, Rajasthan, India (1991).

VIII. Academic – Industry Interaction

Organized Conference/Workshop/Training Programmes

1. One-day Engineers Training Programme on 'Use of New Materials in Rural Roads' for engineers of MPRRA, Bhopal, under MOU, held on January 08, 2021. (Coordinated the event)
2. International Conference 'Transportation Infrastructure Projects – Conception to Execution' (TIPCE2019), Sponsored by IWAI, MoRTH, CSIR, AFCONS, PWD – Maharashtra and MP, LMRC, RITES, held at IIT Roorkee, January 07-10, 2019, (Organizing Secretary)
3. 8th Task Force Committee Meeting of 'Development of Indian Highway Capacity Manual (Indo-HCM), Sponsored by CSIR-CRRI, held at IIT Roorkee, September 9-10, 2016. (Coordinator – Technical Sessions)
4. National Conference on Fifteen Years of PMGSY (FYPMGSY), Sponsored by NRRDA, Ministry of Rural Development, GOI, held at IIT Roorkee, August, 6-7, 2016. (Coordinator – Technical Sessions)

5. Short Term Programme of Two week on Experimentation in Civil Engineering at IIT Roorkee from June 9 – June 21, 2014. (Organised for RTU, Kota under TEQIP)
6. QIP Short Term Programme of one week on Urban Transportation Systems Planning at IIT Roorkee from June 17 – June 21, 2013.
7. QIP Short-Term Training programme of one week on *Urban Transportation Planning*, at IIT Roorkee from June 24 – June 28, 2007.
8. Training programme for AEN / JEN of PWD working on Rural Roads under Pradhan Mantri Gram Sarak Yojna, National Rural Road Development Agency (NRRDA), Ministry of Rural Roads, Govt. of India, at Engineering College Kota, July 18-23, 2005.
9. Assisted in organising the fourth international workshop on *Transportation Planning and Implementation Methodologies for Developing Countries* conducted by the Transportation Systems Engineering Group of Indian Institute of Technology Bombay during Dec 5-7, 2000.
10. Assisted in organising the third international workshop on *Transportation Planning and Implementation Methodologies for Developing Countries* conducted by the Transportation Systems Engineering Group of Indian Institute of Technology Bombay during Dec 9-11, 1998.

Expert Lectures in Academic Programmes

1. Lecture delivered as a resource person on 'Road traffic signs and delineators' in fifteen-day Road Safety Auditors Certification Course under MoRTH, IRC and IIT Roorkee MOU, organised by Department of Civil Engineering, IIT Roorkee, during May 30 – June 13, 2022. (May 30, 2022).
2. Lecture delivered as a resource person on 'Pavement markings and implementation' in fifteen-day Road Safety Auditors Certification Course under MoRTH, IRC and IIT Roorkee MOU, organised by Department of Civil Engineering, IIT Roorkee, during May 30 – June 13, 2022. (May 30, 2022).
3. Lecture delivered as a resource person on 'Design practices – Alignment' in a three-day PMGSY training course organised by Transportation Engineering Group, Department of Civil Engineering, IIT Roorkee during May 19-21, 2022. (May 21, 2022)
4. Lecture delivered as a resource person in Five-day Faculty Development Programme titled 'Advances in Highway Technology and Traffic Systems' conducted online by Ramaiah Institute of Technology, Bengaluru, during February 07-10, 2022. (Feb. 08, 2022)
5. Lecture delivered as a resource person on 'Traffic Signs, Road Markings and Delineators' in fifteen-day Road Safety Auditors Certification Course under MoRTH, IRC and IIT Roorkee MOU, organised by Department of Civil Engineering, IIT Roorkee, during July 19 – August 02, 2021. (July 19, 2021).

6. Lecture delivered as a resource person on 'Data and Data Analytics' in short term training programme on 'Data Collection and Analytics in Pavement Management Systems' organised under Technology Innovation Hub at IIT-BHU, Varanasi, UP, India, March 01-05, 2021. (March 01, 2021)
7. Lecture delivered as a resource person on 'Pavement markings and Road Signs' in fifteen-day Road Safety Auditors Certification Course under MoRTH, IRC and IIT Roorkee MOU, organised by Department of Civil Engineering, IIT Roorkee, during February 22 – March 08, 2021. (February 22, 2021).
8. Lecture delivered as a resource person on 'Intelligent Transportation Systems – Potential Application Areas' in a TEQIP-III sponsored workshop titled 'Intelligent Transportation System for Sustainable Development in India' held at Poornima Institute of Engineering and Technology, Jaipur, in association with Rajasthan Technical University Kota during January 11-15, 2021. (January 13, 2021)
9. Lecture delivered as a resource person on 'Intelligent Transportation Systems – An Introduction' in a TEQIP-III sponsored workshop titled 'Intelligent Transportation System for Sustainable Development in India' held at Poornima Institute of Engineering and Technology, Jaipur, in association with Rajasthan Technical University Kota during January 11-15, 2021. (January 11, 2021)
10. Lecture delivered as a resource person on 'Technological Intervention for Managing and Operating Transportation Infrastructure – A Post COVID Essential' in a "Faculty Development Program" on "*Overcoming COVID-19 Challenges through Innovation in Construction Industry*" to be held at PSIT College of Engineering, Kanpur during December 28, 2020 - January 01, 2021, sponsored by Dr A.P.J Abdul Kalam Technical University (AKTU), Lucknow (UP). (December 30, 2020)
11. Lecture delivered as a resource person on 'Design of Pedestrian facilities', as an expert in a TEQIP-III sponsored student workshop on "Design of Traffic Engineering Facilities" organised by Rajasthan Technical University Kota and Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur during December 25-29, 2020. (December 25, 2020)
12. Lecture delivered as a resource person on 'SMART Transportation – Are Communication and Connectivity Key Issues', as an expert in a webinar organised by Department of Civil and Infrastructure Engineering, Adani Institute of Infrastructure Engineering, Ahmedabad, Gujarat, held on October 28, 2020.
13. Lecture delivered as a resource person on 'Traffic in Cities of Hill Areas – Issues and Remedies', as an expert in a Three-day Training Programme for Government Bodies' Officers on 'Urban Mobility Planning in Hill Areas', organised by Uttarakhand Academy of Administration, Nainital, Uttarakhand, India, held during September 28-30, 2020. (September 30, 2020)

14. Lecture delivered as a resource person on 'Mobility and Safety – A Trade-off in Hill Regions', as an expert in a Three-day Training Programme for Government Bodies' Officers on 'Urban Mobility Planning in Hill Areas', organised by Uttarakhand Academy of Administration, Nainital, Uttarakhand, India, held during September 28-30, 2020. (September 28, 2020)
15. Lecture delivered as a resource person on 'Performance Evaluation of Public Transport', as an expert in a One Week Short Term Training Programme on 'Forensic Analysis Applications in Transportation Engineering', organised by Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh, India, held during August 24 – 29, 2020. (August 29, 2020)
16. Lecture delivered as a resource person on 'Post COVID-19: Impacts and Strategies for Sustainable Transportation,' as an expert in an International Webinar on 'Effect of COVID-19 on Sustainable Transportation Development', organised by Poornima Institute of Engineering and Technology, Jaipur, Rajasthan, India, held on May 26, 2020.
17. Lecture delivered as a resource person on 'Psychological, Personality and Related Factors in Design & Safety, as an expert in a 12-days training course on 'Road Safety Audit Course', organised by Indian Academy of Highway Engineers, Noida, India, held during December 09 – 20, 2019. (December 11, 2019)
18. Lecture delivered as a resource person on 'Human Factors, Road User Characteristics, Perception and Reaction Time, Braking and Acceleration Characteristics in relation to vehicle dynamics and vehicles – road surface intersection', as an expert in a 12-days training course on 'Road Safety Audit Course', organised by Indian Academy of Highway Engineers, Noida, India, held during December 09 – 20, 2019. (December 11, 2019)
19. Lecture delivered as a resource person on 'Walk and Bicycle – NMT Planning and Design', as an expert in a 10-week training course on 'Road Safety Audit Course – Part 1', organised by Indian Academy of Highway Engineers, Noida, India, held during June 17 – August 30, 2019. (June 19, 2019)
20. Lecture delivered as a resource person on 'Vehicle Characteristics – Resistances to Motion and Design Implications', as an expert in a 10-week training course on 'Road Safety Audit Course – Part 1', organised by Indian Academy of Highway Engineers, Noida, India, held during June 17 – August 30, 2019. (June 19, 2019)
21. Lecture delivered as a resource person on 'Human Characteristics and their Implication in Design and Safety', as an expert in a 10-week training course on 'Road Safety Audit Course – Part 1', organised by Indian Academy of Highway Engineers, Noida, India, held during June 17 – August 30, 2019. (June 19, 2019)
22. Lecture delivered as a resource person on 'Sustainable Transportation and SMART Cities', as an expert in Faculty Development Programme on 'Sustainable Urbanization' at Shri Vaishnav Vidhyapeeth Vishwavidhyalaya, Indore, India, held on December 05-07, 2018.

23. Lecture delivered as a resource person on 'Walk and Bicycle – Need to Promote the Sustainable Transportation Modes', as an expert in Faculty Development Programme on 'Sustainable Urbanization' at Shri Vaishnav Vidhyapeeth Vishwavidhyalaya, Indore, India, held on December 05-07, 2018.
24. Lecture delivered as resource person on 'Promotion of Walk and Bicycle as Sustainable Transportation Modes in Urban Areas', as an expert in LD College of Engineering, Ahmedabad, Gujarat, May 02, 2018.
25. Lecture delivered as resource person on 'Structural Equation Modelling – Identification of Decision Paths', in Five day Short Term course held at Datta Megha College of Engineering, Airoli, Mumbai, December 19-23, 2017.
26. Lecture delivered as resource person on 'Traffic Problems in Cities of Uttarakhand State – Possible Solution', in Road Safety Seminar – An Uttarakhand Police Initiative, held at Dehradun, November 25, 2017.
27. Lecture delivered as resource person on 'Identification of Traffic Problems for Cities in Hilly Areas' in a Three Day Training Programme on 'Effective Planning for Mobility in Urban Areas' held at Uttarakhand Academy of Administration, Nainital, Uttarakhand, October 03-05, 2016.
28. Lecture delivered as resource person on 'Transportation Solutions to Traffic Problems in Hilly Areas' in a Three Day Training Programme on 'Effective Planning for Mobility in Urban Areas' held at Uttarakhand Academy of Administration, Nainital, Uttarakhand, October 03-05, 2016.
29. Lecture delivered as resource person on 'Role of ITS and Smart Technologies in Mitigating Traffic problems in Hill States' in a Three Day Training Programme on 'Effective Planning for Mobility in Urban Areas' held at Uttarakhand Academy of Administration, Nainital, Uttarakhand, October 03-05, 2016.
30. Lecture delivered as resource person on 'Promotion of Sustainable Transport Options in Urban Areas' in a Three Day Training Programme on 'Effective Planning for Mobility in Urban Areas' held at Uttarakhand Academy of Administration, Nainital, Uttarakhand, October 03-05, 2016.
31. Lecture delivered as resource person on 'Integration of Walk and Bicycle – A Policy Framework' in a Three Day Training Programme on 'Effective Planning for Mobility in Urban Areas' held at Uttarakhand Academy of Administration, Nainital, Uttarakhand, October 03-05, 2016.
32. Lecture delivered as resource person on 'Influencing Factors for Development of Tourist Locations' in a Three Day Training Programme on 'Effective Planning for Mobility in Urban Areas' held at Uttarakhand Academy of Administration, Nainital, Uttarakhand, October 03-05, 2016.

33. Lecture delivered as resource person on 'Analysis of Trends in Engineering Education in India.' in Expert Session of Annual Planning and Review Meeting of University of Petroleum and Energy Studies, Dehradun, Uttarakhand, August 31, 2016.
34. Lecture delivered as resource person on 'Planning for Non-Motorised Vehicle Users' in QIP STC on 'Urban Transport Systems Planning' at NIT Calicut, Kerala, Nov 25 – 29, 2013.
35. Lecture delivered as resource person on 'Revealed and Stated Preference Modelling' in QIP STC on 'Urban Transport Systems Planning' at NIT Calicut, Kerala, Nov 25 – 29, 2013.
36. Lecture delivered as resource person on 'Sustainable Transport for Diversity' in QIP STC on 'Planning Strategies for Accessibility and Universal Design' at QIP Centre, IIT Roorkee, Nov 11-15, 2013.
37. Lecture delivered as resource person on 'Sustainable Transportation' in QIP STC on 'Urban Transportation Systems Planning' at QIP Centre, IIT Roorkee, June 17-21, 2013.
38. Lecture delivered as resource person on 'Urban Structures and Transportation' in QIP STC on 'Urban Transportation Systems Planning' at QIP Centre, IIT Roorkee, June 17-21, 2013.
39. Lecture delivered as resource person on 'Trip Assignment Techniques' in QIP STC on 'Urban Transportation Systems Planning' at QIP Centre, IIT Roorkee, June 17-21, 2013.
40. Lecture delivered as resource person on 'Modal Split Models' in QIP STC on 'Urban Transportation Systems Planning' at QIP Centre, IIT Roorkee, June 17-21, 2013.
41. Lecture delivered as resource person on 'Trip Distribution Methods' in QIP STC on 'Urban Transportation Systems Planning' at QIP Centre, IIT Roorkee, June 17-21, 2013.
42. Lecture delivered as resource person on 'Pedestrian Mobility and Safety: Issues and Design Improvements in Half day seminar on 'Planning for Pedestrian Mobility and Safety', organized by Department of Civil Engineering, IISc Bangalore in association with Transportation Research Group of India, March 24, 2012.
43. Lecture delivered as resource person on 'A Parametric Study of Pedestrian Speeds at Midblock Crossings', in National Symposium on 'Designing Roads for Disabled Pedestrians in India' organised by The Society for Disability and Rehabilitation Studies (SDRS) New Delhi, India, March 1-4, 2012.
44. Lecture delivered as resource person on "Soil and Aggregate Tests" in Training programme of Rural Engineering Services and Ambedkar Villages, organised by Department of Civil Engineering, IIT Roorkee, April 22-24, 2011
45. Lecture delivered as resource person on "Soil and Aggregate Tests" in Training programme of Rural Engineering Services and Ambedkar Villages, organised by Department of Civil Engineering, IIT Roorkee, January 21-23, 2011.
46. Lecture delivered as resource person on "Stated Preference data Collection and Analysis" in Short term course on Discrete Choice Modelling (DCM 09) organised by Department of Civil Engineering, SVNIT Surat, Dec 21-25, 2009.

47. Lecture delivered as resource person on “Discrete Choice Modelling” in Short term course on Discrete Choice Modelling (DCM 09) organised by Department of Civil Engineering, SVNIT Surat, Dec 21-25, 2009.
48. Lecture delivered as resource person on “Stated Preference data Collection and Analysis” in workshop on Recent Trends in Sustainable Planning, organised by Centre of Infrastructure, Sustainable Transportation and Urban Planning (CiSTUP), IISc Bangalore, Dec 12-14, 2009
49. Lecture delivered as resource person on “Sustainable Transportation: NMT Options and Policies” in workshop on Recent Trends in Sustainable Planning, organised by Centre of Infrastructure, Sustainable Transportation and Urban Planning (CiSTUP), IISc Bangalore, Dec 12-14, 2009.
50. Lecture delivered as resource person on “Soil and Aggregate Tests” in Training programme of NREGA, organised by Department of Civil Engineering, IIT Roorkee (2009).
51. Lecture delivered as resource person on “Soil and Aggregate Tests” in Training programmes of NREGA, organised by Department of Civil Engineering, IIT Roorkee (2008).
52. Lecture delivered as resource person on “Urban Transportation Planning” in QIP short-term course on Urban Transportation Planning, IIT Roorkee (2007).
53. Lecture delivered as resource person on “Modal Split Models” in QIP short-term course on Urban Transportation Planning, IIT Roorkee (2007).
54. Lecture delivered as resource person on “Stated Preference Surveys” in QIP short-term course on Urban Transportation Planning, IIT Roorkee (2007).
55. Lecture delivered as resource person on “Behavioural Analysis and Estimation” in QIP short-term course on Urban Transportation Planning, IIT Roorkee (2007).
56. Lecture delivered as resource person on “Transportation Demand, Supply and Cost” in QIP short-term course on Urban Transportation Planning, IIT Roorkee (2007).
57. Lecture delivered as resource person on “Urban Structures and their Evaluation” in QIP short-term course on Urban Transportation Planning, IIT Roorkee (2007).
58. Lecture delivered as resource person on “Rigid pavements for rural roads” in QIP short-term course on Planning, design, construction and maintenance of rural roads, IIT Roorkee (2007).
59. Lecture delivered as resource person on “Working with revealed preference and stated preference data for analyzing travel choices” in short term training programme on Recent advances in transportation planning and traffic engineering, IIT Guwahati (Jan 15-19, 2007).
60. Lecture delivered as resource person on “Sustainable transportation: Need for promoting walk and bicycle”, in short term training programme on Recent advances in transportation planning and traffic engineering, at IIT Guwahati, (Jan 15-19, 2007).

61. Lecture delivered as resource person on “Design of Rigid Pavements for Rural Roads” in 15th and 16th Training programme of PMGSY organised by Principal Technical Agency, IIT Roorkee (2006).
62. Laboratory demonstration of “Testing of Bituminous Material” in 15th and 16th Training programme of PMGSY organized by Principal Technical Agency, IIT Roorkee (2006).
63. Lecture delivered as resource person on “Management Information System” in training programme entitled ‘Municipal Solid Waste Management’ organized under Ministry of Urban Development for Engineers, at MNNIT, Allahabad (2006).
64. Lecture delivered as invited speaker on “Water Conservation and Management’ in Seminar on ‘Water Management’ organised by Rotary Allahabad (2005).
65. Lecture delivered as invited speaker on “Sky Bus – A Technology for Urban Transportation” as invited talk at Institution of Engineers, Allahabad Chapter, MNNIT Allahabad (2005).
66. Lecture delivered as invited speaker on “Water Conservation and Management’ in convention on ‘Water Conservation’ organised by Rotary Allahabad Elite (2005).
67. Lecture delivered as co-ordinator on “Aggregates and Bituminous Materials” in training programme organized by State Technical Agency, Engineering College Kota, under PMGSY, NRRDA (2005).
68. Lecture delivered as co-ordinator on “PMGSY Guidelines” in training programme organized by State Technical Agency, Engineering College Kota, under PMGSY, NRRDA (2005).
69. Lecture delivered as co-ordinator on “Geometric Design and Safety Aspects” in training programme organized by State Technical Agency, Engineering College Kota, under PMGSY, NRRDA (2005).
70. Laboratory demonstration of “Road Materials Testing” in training programme organized by State Technical Agency, Engineering College Kota, under PMGSY, NRRDA (2005).
71. Lecture delivered as resource person on “Discrete Choice Analysis for Modal-Split Models” in training programme organised by L. D. College of Engineering, Ahmedabad (2005).
72. Lecture delivered as resource person on ‘Quality Control in Design and Construction of Roads’ in training programme organized by Agricultural Marketing Board, Kota division (2001).
73. Lecture delivered as resource person on ‘Traffic Signs – Changes in IRC specifications’ in training programme organized by Agricultural Marketing Board, Kota division (2001).
74. Lecture delivered as resource person on ‘Sealant for joints’ in a short-term course on ‘Deterioration and Repair of Concrete Structures’, conducted by Civil Engineering Department, Engineering College Kota (1996).
75. Lecture delivered as resource person on ‘Testing of road materials and IS code specifications’ in a short term course on ‘Civil Engineering Materials’ testing’ conducted by Civil Engineering Department, Engineering College Kota (1995).

Consultancy Provided

1. Vetting of ITMS works done on 13 intersections under Firozabad Nagar Nigam, Chief Engineer, Firozabad Nagar Nigam.
2. Testing of Bitumen Emulsion RS-1 and SS-1, M/s GR Infra Projects Ltd. RIICO Kaladwas Industrial Area Udaipur.
3. Vetting of ITMS works done on 20 intersections under Mathura-Vrindavan Nagar Nigam, Chief Engineer Mathira-Vrindavan Nagar Nigam.
4. Testing of Warm Mix Additive – Wet Bound WMA, M/s PetroChem Specialists Muzaffarnagar.
5. Testing of bituminous emulsions (RS and SS-1), M/s GR Infra Projects Ltd. RIICO Kaladwas Industrial Area Udaipur.
6. Strengthening and resurfacing of roads under PWD WR-1 Maintenance Division, EE PWD Division WR-1, M-111, New Delhi.
7. Testing of DBM cores procured from Four-laning work on Meerut-Shamli road, M/s Dinesh Chandra Agarwal Infracon Pvt. Ltd. Meerut.
8. Core cutting and testing of CC road in village Dakrani, Development Block Vikasnagar, Dehradun, EE Mussoorie-Dehradun Development Agency, Dehradun.
9. Financial vetting of extra items and deviation related to stair case railing of administrative office building at HQ, Greater Noida, Sr. Manager WC-5, Sector PK-4, Greater Noida.
10. Testing of Aggregates and Bitumen PMB-40, M/s R n Infra Projects, Durgapur, West Bengal.
11. Testing of Soil Material for Connectivity Roads Under PMGSY-3 PIU, RES, Muzaffarnagar, EE, PIU, RES Muzaffarnagar.
12. Phasing Planning for Development Works Proposed in Amravathi City under Master Plan Prepared by APCRDA, Vijayawada, Andhra Pradesh, Commissioner APCRDA, Vijayawada, Andhra Pradesh.
13. Testing of BC Layer Laid on Runway of Under-Construction No-Frill Airport Moradabad, Project Manager, UPRNNL, Moradabad.
14. Third Party Inspection and Testing of Delhi-Meerut Road From Meerut Bypass to Shatabdi Nagar for Delhi Ghaziabad Meerut RRTS Corridor, Dy Chief Project Manager-I/Gzb, National Capital Region Transport Corporation, Ghaziabad, UP.
15. Vetting of an Estimate of Convention Centre Block and Habitat Block, Noida, Sr Manager, Wc-9, Noida.
16. Vetting of an Estimate of Golf Course Sector 151A, Noida, Sr Manager, Wc-10, Noida.
17. Safety Evaluation and Audit of 4-Laning Projects (Section of NH-72A, NH-73) of PIU Roorkee, NHAI, GM Tech Cum Project Manager, PIU, Roorkee.
18. Core Cutting and Testing of Bituminous Layer on Approach Road to Tunnel at Dhari, Rail Vikas Nigam Ltd. (RVNL)

19. Vetting of Estimate of Underpass at Km 16.400 on Noida-Greater Noida Expressway, Sr Manager, WC-10, Noida.
20. Quality Audit and Testing of Material for Widening of Delhi-Meerut Road From Modinagar North to Meerut Bypass (Ch. 49300 to 58300) for Delhi-Ghaziabad-Meerut RRTS Corridor, Dy Chief Project Manager-I/Gzb, National Capital Region Transport Corporation, Ghaziabad, UP.
21. Vetting of Estimate of Hot-In-Place Recycling and SMA Work on Noida-Greater Noida Expressway, Sr Manager, WC-10, Noida.
22. Benkelman Beam Test on NH 7 (Old NH 58) Between Srinagar and Rudraprayag, PWD, Rudraprayag.
23. Testing of SDBC and BC Works on Roads of Temp Div., PWD Ghansali Ghumetidhar, EE, Temporary Division, Pwd Ghansali, Uttarakhand.
24. Design of Job Mix Formulae for GSB, WMM, Soil Stabilization, DBM, DAC-I, DAC-II, SDAC, DLC & PQC and Studies on Laboratory Test on Materials for Resurfacing and Allied Works at AF Stn Hasimara, Offg. Age BR-II (AF), Hasimara Airforce Station, Hasimara.
25. Technical Inputs for Problem of Repeated Failure of Floor and Road in Vedanta Plant, Engineering Cell, Vedanta, Jharsuguda, Odissa.
26. Strengthening of Mangalore-Devband Motor Marg-Benkelman Beam and CBR, EE, Construction Division PWD, Roorkee, Uttarakhand.
27. Benkelman Beam Test for Strengthening of Roads under PWD WR-2, Sub-Div WR-23, EE, CRMD, WR-2 M112N, New Delhi.
28. Quality Audit and Testing of Materials for Widening of Delhi-Meerut Road From Duhai to Modi Nagar for Delhi-Meerut Road, Ghaziabad-Meerut RRTS Corridor, Dy Chief Project Manager-I/Gzb, National Capital Region Transport Corporation, Ghaziabad, UP
29. Pavement Overlay Design Using Falling Weight Deflectometer for SNGT Road, EE, Construction Division-3, PWD, Saharanpur, UP.
30. Design of Job Formulae for GSB, WMM, DBM And BC for Widening of Delhi-Meerut Road from Duhai to Modi Nagar for Delhi-Ghaziabad-Meerut RRTS Corridor, Dy Chief Project Manager-I/Gzb, National Capital Region Transport Corporation, Ghaziabad, UP
31. Design of Job Mix Formulae for DBM and BC for Widening of Purkaji-Laksar-Haridwar Road of NH-No. 334A, Executive Engineer, National Highway Division, PWD, Dehradun.
32. Proof Checking of Design and Drawings of Highways & Structures-Chakeri-Allahabad NH-2, PNC Triveni Dangam Highways Pvt Limited, Agra.
33. Proof Checking of Design and Drawings of Highways & Structures Pkg-I Aligarh-Kanpur NH9, PNC Aligarh Highways Pvt Limited, Aligarh.
34. Quality Test for WBM Road along Plant Boundary of Obra Thermal Power Plant, Obra, Sonebadra, UP.

35. Benkelman Beam Test for Strengthening of Roads under PED Div. WR-2, Sub-Div. WR-21&22 New Delhi
36. Design of Flexible Pavement Crust based on CBR of Subgrade Soil, Ex. Engineer, Construction Div., PWD Roorkee.
37. Proof checking of NHAI – Jhansi – Khajuraho Road Project Package-II (km 76+300 to km 161+700), PNC Infratech Limited, New Delhi.
38. Proof checking of NHAI – Jhansi – Khajuraho Road Project Package-I (km 0+000 to km 76+300), PNC Infratech Limited, New Delhi.
39. Mix Design of Reclaimed Asphalt Pavement (RAP) and Stabilised Water Bound Macadam (WMM) for PWD Baghpat and PWD Hapur, UP.
40. Testing of Bitumen and wearing course on Internal Road of BHEL Haridwar, PMG Civil, BHEL, Haridwar.
41. Analysis and testing of Wearing Curses on different roads of MDA Moradabad, Moradabad Development Authority, Moradabad.
42. Analysis and testing of SDBC and BM works in Pratapnagar Constituency of Tehri District, Construction Division PWD Chamba.
43. Testing of cores of BM and SDBC for Package No C-26 Kapkot – Shama – Tejam Motor Marg, ADB UEAP Division, PWD Bageshwar.
44. Vetting of Geometric design and Structural Design of Structures of Agra Inner Ring Road Phase-II, Agra Development Authority, Agra.
45. Inspection and testing of BM / SDBC on Suwakholi – Almas – Bhawan – Nagun Motor Marg, Temporary Division, PWD Thatyud, Tehri Garhwal.
46. Inspection analysis and testing of local roads constructed by Moradabad Development authority, Moradabad.
47. Testing of BM and SDBC works on Chilyansisod – Jogat motor marg, WB Div., PWD Uttarkashi.
48. Testing if DBM and BC layers on Pashulok Barrage marg to AIIMS Rishikesh, Temp. Div., PWD Rishikesk.
49. Inspection and testing of SDBC works on Buwakhel – Pauri – Dev Prayag motor marg, ADB Disaster Div., PWD Pauri.
50. Inspection and testing of Kalsi-Chakrata / Haripur – Ichadi motor marg of PWD Sahiya, Temp. Div., PWD Sahiya.
51. Inspection and testing of motor marg in Chakrata and Vikas Nagae Assembly Constituencies, Temp. Div., PWD, Sahiya.
52. Testing of SDBC layers on roads at NCPS Dadri, AGM Town Admn., NCPS, Vidhyut Nagar, Dadri.
53. Inspection, analysis and testing of local roads in Moradabad, Moradabad Development Authority, Moradabad.

54. Inspection, analysis and testing of Buwakhali – Pauri – Dev Prayag Motor marg, ADB Disaster Div., PWD, Pauri.
55. Proof checking for pavement design for four laning of Muzaffarnagar – Haridwar section, ERA Group, Noida.
56. Inspection, analysis and testing of roads under Moradabad Development Authority, Moradabad.
57. Site Visit and Design of Flexible Pavement for Master Plan roads in Narela Sub-city, Northern Div. -12, DDA, Narela, Delhi.
58. Vetting of RFP of works in city of Noida, Distt. Gautam Budh Nagar, UP, Noida Traffic Cell, Noida.
59. Vetting of Geometric Design of Ramps and Loops on connectivity between NH-2, Yamunan Expressway and ROB towards Fatehabad, Agra Development Authority, Agra.
60. Design of CC mix for Kalpana Cinema to Chilkana road, Saharanpur Development Authority, Saharanpur.
61. Training of technical staff of Department of Civil Engineering, Rajasthan Technical University, Kota.
62. Inspection and strengthening works done on Bhurani – Chhatarpur road, Udham Singh Nagar, PWD Rudrapur.
63. Inspection of BM and SDBC works on New Tehri – Kirti Nagar marg, PWD New Tehri.
64. Post construction tests on BC layers (NH-58), PWD Roorkee.
65. Field tests on Shimla Bypass road, PWD Dehradun.
66. Field tests on two roads in Ghansali, PWD Ghansali.
67. Sampling and Testing of Bituminous Core Samples of Bituminous Macadam and Semi-Dense Bituminous Macadam layers, IIT Roorkee Campus.
68. CBR and PI values for Samples from Mori-Naitwar-Saakri Road, Purola, Uttarakhand, PWD, Purola.
69. Design of Flexible Pavement for Roads passing through Jhabreda, PWD, Roorkee.
70. Flexible Overlay Design for Lambarpur - Barotiwala – Ambari Motor Marg, Sahiya, PWD, Sahiya.
71. Design of Overlay for Dobra – Bhaldiyana Band Motor Marg, PWD, New Tehri.
72. Flexible Pavement Design for Roads of Construction Division, PWD, Amroha.
73. Design of Pavement on Mandi Samiti Road between Kalpana Cinema and Chilkana Road, Saharanpur Development Authority, Saharanpur.
74. Overlay Design Using Benkelman Beam equipment for Roads in and around Amroha, PWD Amroha.
75. Flexible Overlay Design for Barotiwala – Ambari Motor Marg, Sahiya, PWD, Sahiya.
76. Overlay Design using Benkelman Beam Test for Roads around Chandpur, PWD, Bijnor.

77. Traffic Management Plan for Dariba Smelter Plant at Udaipur, M/s Hindustan Zinc Limited, Udaipur.
78. Design of Flexible Pavement for Shantershah Sehdevpur Marg to Bawali Kalanjar Marg, PWD, Roorkee.
79. Design of Flexible pavement for Kudakwala to Buggawala (Biharigarh) in district of Haridwar, Uttarakhand.
80. Evaluation of EIRR on roads under UP State road Project, Chief Engineer, World Bank (Roads) Project, UPPWD, Lucknow, UP.
81. Benkelman Beam deflection study and design of overlay on roads in Saharanpur, PWD, Saharanpur, UP.
82. Design of overlay for Moradabad Haridwar road to Meerut Pauri Road via Puranpur Bijori Jottiwala, PWD, Bijnor, UP.
83. Benkelman Beam studies and overlay design for roads in Bijnor, PWD, Bijnor, UP.
84. Design of BC mix at Bhiwadi Four Lanning Project, RIDCOR, Jaipur. (0.55 Lac)
85. Benkelman beam deflection study and design of overlay on roads in Khurja, PWD, Khurja, UP.
86. Benkelman beam deflection study and design of overlay for roads in Amroha, PWD, Amroha, UP.
87. Design of overlay using Benkelman Beam deflection data for Sambhal-Adampur road and Saidnagli – Manauta – Chaudarpur road, PWD, Moradabad, UP.
88. Evaluation of Thiopave with different types of Aggregates and Additives, M/s Shell Research Limited, United Kingdom.
89. Design of overlay for Modinagar – Hapur and Dasna – Gulawathi road, PWD, Ghaziabad, UP.
90. Design of overaly for Bijnor – Nangal – Najibabad marg and Bijnor Kotwali marg, PWD, Bijnor, UP.
91. Design of overlay for Gaindikhata to Laldhang road, PWD, Haridwar, Uttarakhand.
92. Design of Overlay for Mohan Nagar – Loni – Wazirabad road, PWD, Ghaziabad, UP.
93. Design of flexible pavement for Dunda – Dhanari – Sem – Mukhem motor marg, PWD, Uttarkashi, Uttarakhand.
94. Traffic Management Plan for Ambuja Plant at Suli and Rauri, M/s Ambuja Cement, Himachal Pradesh.
95. Design of flexible pavement for Dhanauri – Sidcul link marg, Irrigation Division, Hardwar, Uttarakhand.
96. Design of overlay for roads in Moradabad, PWD, Moradabad, UP.
97. Strengthening and rehabilitation of roads in NDMC area, New Delhi, NDMC, New Delhi. (12.73 Lac)
98. Design of overlay for roads in Moradabad (SH-41 and MDR-65), PWD, Moradabad, UP.

99. Evaluation of Thiopave with different types of aggregates, M/s Shell Global Solutions.
100. Design of overlay for roads in Bijnor, PWD, Bijnor, UP.
101. Audit of completed road works under NH division, PWD Haldwani, Nainital, Uttarakhand. (8.75 Lac)
102. Benkelman beam deflection studies on Kotwali-Nahtor marg, Bijnor, PWD Bijnor, UP. (0.72 Lac)
103. Design of overlay on Panipat – Khatima road (SH-12), PWD, Muzaffarnagar, UP.
104. Deflection study and design of overlay on Chhapar – Rohana and Rohana – Charthwal road, UPPWD, Muzaffarnagar, UP.
105. Laboratory evaluation of Dense Bituminous Macadam with Thiopave, M/s Shell Global Solutions, United Kingdom.
106. Traffic Management Plan for Ambuja Cement Plant at Ropar, Punjab, M/s Ambuja Cement.
107. Quality control inspection of roads in Narendranagar, PWD Narendranagar, Uttarakhand. (0.55 Lac)
108. Design of overlay for roads in Moradabad, PWD, Moradabad, UP.
109. Site visit report on Haldwani – Ramnagar road (MDR-32), PWD, Ramnagar, UP.
110. Quality control inspection of NH-74 and NH-87 road sections under PWD Haldwani, Uttarakhand. (6.42 Lac)
111. Site visit report on Majhra – Bhuddi – Shekuwala - Dharamawala road, PWD, Dehradun, Uttarakhand.
112. Design of overlay for Nainital – Kaladhungi – Bazpur – Doraha road (km 34-49), PWD, Ramnagar, UP.
113. Report on Suitability of RBI Grade-81 in road construction, Legend Surface Developers Pvt. Ltd., New Delhi.
114. Deflection study and design of overlay on Muzaffarnagar – Saharanpur road, PWD, Meerut, UP.
115. Vehicle Damage Factor on Muzaffarnagar – Saharanpur road, UPPWD, Meerut, UP.
116. Benkelman beam deflection study and design of overlay in km 0.00 to 14.00 of NH-72A, PWD, Ghaziabad, UP.
117. Report on site visit to Parking area at IOCL Bottling Plant, Haridwar, IOCL, Haridwar, Uttarakhand.
118. Site visit report on Shimla Bypass Radial Road, Dehradun, PWD, Dehradun, Uttarakhand.
119. Benkelman beam deflection study and design of overlay on different roads in Rudrapur, PWD, Rudrapur, Uttarakhand.
120. Quality control inspection of roads, PWD Thatyur, Uttarakhand.
121. Field Testing of Roads in Rudrapur, PWD Rudrapur.
122. Deflection studies in Rudrapur and mix design for bituminous works, PWD Rudrapur.
123. Scrutinizing of design for Kurukshetra and Pehowa roads, PWD Kurukshetra.

124. Quality control inspection for NH-24 Gaziabad-Delhi Road, PWD Delhi.
125. Design of Bituminous mixes and field tests, PWDs. (1.85 Lac)
126. Quality Control inspection for Canal Road (left bank) between Manglore and Murad nagar, U.P. Projects Corporation Ltd. Meerut.
127. Design of Job Mix formula for Gugaon, Mohali, Roorkee, Hapur and Narela, respective PWDs. (2.00 Lac)
128. Quality Control supervision for Old Delhi Road, connecting NH-65 with NH-1, Ambala PWD.
129. Design of Bituminous mixes for Taxi track as AF Station Kheria, Agra, UP. (0.44 Lac)
130. Quality control supervision for newly constructed roads in Karnal district (Karnal-Ramba-Indri-Ladwa Road and Karnal – Kaithal road), Haryana.
131. Design of overlays using Benkelman beam deflections for NH-72A section between Dehradun and Chhutmalpur, Uttrakhand.
132. Remedial measures for deformed bituminous surface in parking area of Indian oil Corporation Bottling plant at Haridwar.
133. Remedial measures for distressed roads in Dehradun (Radial Road) City, Uttranchal.
134. Design of overlays using Benkelman beam deflections for various roads in Sardar Udham Singh Nagar, Uttranchal.
135. Design of concrete road for roads near carpet production units within city area, Bhadohi, UP.
136. Bituminous Road design for Carpet City Plan, Bhadohi, UP.
137. Scrutiny of DPRs under PMGSY for Allahabad, Mirzapur, Chitrakoot, Ballia, Pratapgarh, Fatehpur, Bhadohi districts of Uttar Pradesh.
138. Soil characteristics required for design of roads under different districts of Eastern UP.
139. Bituminous Mix Design for Runway landing strip, Air Force Station, Bareilly, NH-Div. PWD, Mirzapur, Air Force Station, Bamrauli, Allahabad, and Military Engineering Services, Kota.
140. Scrutiny of DPRs under PMGSY for Kota, Bundi, Swai Madhopur, Jhalawar, Baran districts of Rajasthan.
141. Pavement crust design for NH-12 bypass road between Daknia Talav station and DCM railway crossing for Urban Improvement Trust Kota (testing involved).
142. Recommendation of safe Bearing Capacity for RCC Overhead tank at Sunel for Resident Engineer, PHE-I, RHB, Jaipur (testing involved).
143. Discussed and suggested remedial measures for repeated failures of DCM road with Urban Improvement Trust Kota.
144. Discussed and suggested remedial measures relating to road failures with NTPC Anta, Baran.

Sponsored Projects

1. 'Advanced Transport Modelling and Simulation for National Highways in India', in coordination with IAHE, Delhi and UNSW Australia, funded by MoRTH, GOI, PI – Amit Agarwal, cost Rs 4.20 crore (INR 41.94 million)
2. 'Development of Indian Highway Capacity Manual', In coordination with CRRI, New Delhi, under Government of India scheme, funded by CSIR, PI – Prof. Satish Chandra, Cost 90 Lakh.
3. "Pedestrian Behaviour under varied Traffic and Spatial conditions', CSIR, New Delhi, cost 15.90 Lakh, as co-investigator, PI – Prof. Satish Chandra. (Completed June 2011)
4. 'Inter-city Travel Behaviour of Residents in Higher Education Institutions', Awarded under Research initiation grant of IIT Roorkee, cost 5.0 Lakh. (Completed June 2010)

IX. Visits outside Institute

| S. No. | Institute / City / Country | Purpose | Dates |
|--------|------------------------------------|-------------------------|----------------------|
| 1. | Lucknow India | 81 st AS IRC | October 08-11 2022 |
| 2. | Tiruchirappalli, India | 6 th CTRG | December 14-17, 2021 |
| 3. | Bhopal, India | 5 th CTRG | December 18-21, 2019 |
| 4. | IAHE, Noida, India | RSAC | December 11, 2019 |
| 5. | IAHE, Noida, India | RSAC | June 19, 2019 |
| 6. | IIT Bombay, India | WCTR | May 25-30, 2019 |
| 7. | SVVV, Indore | FDP | December 05-07, 2018 |
| 8. | LDCOE, Ahmedabad | Expert Lecture | May 02, 2018 |
| 9. | IIT Bombay, India | 4 th CTRG | December 17-20, 2017 |
| 10. | DMCOE, Airoli, India | STC / FDP | December 19, 2017 |
| 11. | Dehradun Police | Road Safety Seminar | November 25, 2017 |
| 12. | Hong Kong | 22 nd HKSTS | December 09-11, 2017 |
| 13. | Nijmegen, The Netherlands | Velocity-2017 | June 13-16, 2017 |
| 14. | IIT Bombay India | TPMDC 2016 | December 19-21, 2016 |
| 15. | UAA, Nainital, India | Training Programme | October 03-05, 2016 |
| 16. | UPES, Dehradun, India | Review Meeting | August 31, 2016 |
| 17. | LDCOE, Ahmedabad | NCTWE 2015 | April 24-25, 2015 |
| 18. | ITU Macka Campus, Istanbul, Turkey | CODATU 2015 | February 02-05, 2015 |
| 19. | Bhubaneswar, India | 75 th AS IRC | January 18-22, 2015 |
| 20. | IIT Bombay India | TPMDC 2014 | December 10-12, 2014 |
| 21. | Aalto University, Espoo, Finland | Executive Course | August 11-15, 2014 |
| 22. | NIT Calicut, India | QIP STC | November 26, 2013 |
| 23. | SJCE Mysore, India | NS HSR | May 09-10, 2013 |
| 24. | Coimbatore, India | 73 rd AS IRC | January 07-11, 2013 |
| 25. | IIT Bombay India | TPMDC 2012 | December 12-14, 2012 |
| 26. | IISc Bangalore, India | APD Seminar | March 24, 2012 |

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| 27. SDRS New Delhi, India | National Symposium | March 01, 2012 |
| 28. Calgary, Canada | CUPUM 2011 | July 05-08, 2011 |
| 29. IIT Bombay India | TPMDC 2010 | December 15-17, 2010 |
| 30. SVNIT Surat, India | QIP STC | December 22, 2009 |
| 31. CiSTUP, IISc Bangalore | Workshop | December 12-14, 2009 |
| 32. Washington D.C. | 88 th TRB | January 11-15, 2009 |
| 33. IIT Madras | BPRCM 2008 | September 12-14, 2008 |
| 34. IIT Guwahati | MTTBR 2008 | February 12-16, 2008 |
| 35. IIT Guwahati | STTP | January 15-19, 2007 |
| 36. IIT Bombay India | TPMDC 2004 | December 16-18, 2004 |
| 37. IIT Madras | TRANSPO 2004 | February 18-20, 2004 |
| 38. IIT Delhi | Inter Course TRIPP | December 14-21, 2002 |
| 39. IIT Kharagpur | ROTRAN 2002 | September 12-13, 2002 |
| 40. Kruger National Park, South Africa | ICTSQI | August 05-10, 2001 |
| 41. Seoul South Korea | WCTR | July 22-27, 2001 |
| 42. IIT Bombay India | TPMDC 2000 | December 05-07, 2000 |
| 43. Madurai, India | 61 st AS IRC | January 04-07, 2000 |
| 44. IIT Bombay India | TPMDC 1998 | December 09-11, 1998 |
| 45. IE(I), Bangalore | 11 th IEC | December 20-24, 1996 |

X. Areas of Interest

Integrated transportation planning with non-motorized and motorized modes; Travel behaviour modeling; Land use and transportation interactions; Stated and Revealed Preference Survey planning and design; Urban traffic congestion; Road safety; Accident Analysis and Prevention, and Pavement Design and Evaluation.

XI. Courses Taught

Within Transportation Engineering

- ✓ Highway Engineering
- ✓ Transportation Planning
- ✓ Geometric Design
- ✓ Traffic Engineering and Transportation Planning.
- ✓ Transportation Modeling and Simulation.
- ✓ Transportation Systems Analysis.
- ✓ Highway Materials and Testing.
- ✓ Transportation Systems and Planning / Transportation Planning.
- ✓ Highway and Traffic Engineering
- ✓ Transportation Engineering (-I) including Highway Engineering.

- ✓ Transportation Engineering (-II) including Railway Engineering and Airport Engineering.
- ✓ Advance Transportation Engineering including Traffic Engineering.
- ✓ Road Material Testing Lab including testing of road aggregates, soil and bitumen.

Outside Transportation Engineering

- ✓ Numerical Analysis and Computer Programming
- ✓ Computer Graphics
- ✓ Modeling, Simulation and Analysis
- ✓ Environment and Ecology
- ✓ Material Testing Lab including testing of bars, cubes, blocks etc.
- ✓ Engineering Mechanics and Experimental Techniques Lab including verification of laws of static etc.
- ✓ Structural Engineering Lab including verification of theorems of structures.
- ✓ Building Planning and Design – I
- ✓ Engineering Graphics

XII. Teaching Engagement

| | |
|------------------|--------------------------------------|
| Spring 2022-2023 | CEN 210 Highway Engineering 3L-1T-2P |
| Autumn 2022-2023 | CEN 564 Geometric Design 3L-2T-0P |
| | CEN 499 Training seminar 0L-0T-2P |
| Spring 2021-2022 | CEN 210 Highway Engineering 3L-1T-2P |
| Autumn 2021-2022 | CEN 564 Geometric Design 3L-2T-0P |
| | CEN 499 Training seminar 0L-0T-2P |
| Spring 2020-2021 | CEN 210 Highway Engineering 3L-2T-3P |
| Autumn 2020-2021 | CEN 564 Geometric Design 3L-2T-0P |
| | CEN 499 Training seminar 0L-0T-2P |
| Spring 2019-2020 | CEN 210 Highway Engineering 3L-1T-1P |
| | CEN 400A B Tech Project 0L-0T-2P |
| Autumn 2019-2020 | CEN 564 Geometric Design 3L-1T-0P |
| | CEN 307 Railway Engineering 0L-1T-0P |
| | CEN 400A B Tech Project 0L-0T-2P |

XIII. Course Curriculum Developed

01. Developed a MOOC course for NPTEL platform under Swayam scheme on 'Geometric Design', a certification course for UG and PG students to be run in Autumn 2022-2023 (July to October 2022).

02. Developed an Audio-Visual module on 'Laboratory Tests for Road Materials – Soil, Aggregates and Bitumen', under CEN 210 Highway Engineering, IIT Roorkee, Spring 2020-2021.
03. Modified the structure of M Tech Transportation Engineering by incorporating laboratory courses and inclusion of experiments in existing courses. Experiments listed for laboratory course CEN-667 Transportation Studies and Analysis Laboratory, and Programme Core course CEN-210 Highway Engineering. Assisted in creation of syllabus of CEN 568 Advanced Highway Material Characterisation and CEN 663 Pavement Evaluation and Management (2019)
04. Developed course material for M. Tech course on 'Geometric Design', 'Transportation Planning', 'Urban Mass Transit Systems', and 'Transport Economics' under New Scheme 2014.
05. Developed course material of B. Tech Course (new syllabus – 2013) on 'Numerical Methods and Computer Programming' CE-103 for Department of Civil Engineering, IIT Roorkee.
06. Finalized course curriculum of B. Tech in Civil Engineering (2012) of Rajasthan Technical University, University College of Engineering as a member of BOS of Civil Engineering.
07. Finalized course curriculum of M. Tech in Transportation Engineering (2011) of Rajasthan Technical University, University College of Engineering as a member of BOS of Civil Engineering.
08. Scrutinized courses of Sharda University (Highway Engg, Transport Systems and Planning and Railway Engg).
09. Developed course syllabi of three courses 'Transportation Modelling and Simulation', 'Highway Materials and Testing' and 'Traffic Engineering and Transportation Planning' to be run in M. Tech. Transportation Engineering (revised) of Department of Civil Engineering at IIT Roorkee, 2010.
10. Developed a NPTEL course on 'Railway Engineering' in 2007.
11. Submitted a Proposal for starting Master of Technology in Civil Engineering with specialization in Transportation Systems Engineering at MNNIT, Allahabad. Proposal under consideration of Senate.
12. Detailing of course contents of elective course in 'Transportation Systems and Planning' run in VIII Semester of Civil Engineering Department at M.N.N.I.T., Allahabad.
13. Advanced Transportation Engineering [8th Semester, Elective, 3L] at Engg. College Kota
The course deals with traffic engineering in detail. It covers road user characteristics, fundamental relationships between traffic parameters, various traffic studies, statistical methods for dealing with data, design of facilities, impact assessment and road safety.
14. Transportation Engineering – II [7th Semester, Core, 3L] at Engg. College Kota
The course contains both railway engineering and airport engineering. The aspects covered are components of track and related issues, geometric design of track, points and crossings,

signals and interlocking, urban railway systems, airport site selection, aircraft components, runway design, taxiway design, pavement design, aprons, hangers, terminals, lighting etc.

15. Transportation Engineering – I [6th Semester, Core, 3L] at Engg. College Kota

This is the basic course in Highway Engineering. It covers aspects like highway planning, road development plans, geometric design, pavement design, materials and construction, elementary traffic engineering, hill roads and roadside arboriculture.

16. Road Material Testing Laboratory [6th Semester, Core, 2/2] at Engg. College Kota

Bitumen testing facilities were enhanced through the purchase of different equipments. Handouts were prepared in a way that they can be directly used in the field, if so required.

Other Areas

Course structure was developed for Engineering Mechanics and Experimental Techniques Lab, and Building Planning and Design.

Question Bank was developed for Material Testing Lab, Engineering Mechanics and Experimental Techniques Lab, and Structural Engineering Lab.

Student Evaluation

Use of MS Forms for creating quizzes and assignments, as well as practical evaluation.

Apart from the midterm tests specified in course curriculum of theory subjects, the students were also evaluated based on assignments, quizzes, viva-voce and course seminars.

For Practical subjects, they were evaluated based on question bank assignments, quizzes and viva-voce for each experiment.

At times Field Oriented problems are given in groups to find its solution.

XIV. Computer Proficiency

I am Comfortable with presentations using transparencies and Overhead Projectors, and computer system with LCD projectors or SMART LED based teaching.

Conversant with software likes ALOGIT (for behavioural modeling), TransCAD (for transportation planning), TRIPPS (for traffic assignment), TRYNSIT (for intersection control), HDM-4 (for highway decisions), SPSS (Statistical Software), Snap Surveys (Survey questionnaire preparing software) and Microstation (General design tool). Learning MX Road.

Also having working knowledge of applications like MS Word, Excel Worksheets, Power Point, FOX Pro etc. working in updated Windows operating system environment.

XV. Membership of Professional / Academic Bodies

- Fellow, Indian Geotechnical Society, New Delhi. [LF – 0624, 2022, old LM-1425, 1995]
- Fellow, Institution of Engineers (India), Calcutta. [F – 117388-6, 2012]

- Expert Member, UD BOS for Civil Engineering, Rajasthan Technical University, Kota, July 2018 – June 2020, April 2021 – May 2023.
- Co-Convenor, IRC Committee G-6 on Multi-Modal Transport Systems, April 2021 – December 2023.
- Member, IRC committee H-1 on Transport Planning and Traffic Engineering, January 2018 – March 2021, April 2021 – December 2023.
- Member, IRC committee H-8 on Urban Roads, Street and Transport, 2008-2011, 2012-2015, 2018-2021 April 2021 – December 2023.
- Member of TRB, USA Committee for Bicycle Transportation (ANF20)
- Member of TRB, USA Committee on Accessible Transportation and Mobility (ABE60)
- Friend of TRB, USA Roundabout Committee (ANB75)
- Life Member, Transportation Research Group of India, Bangalore.
- Member, Board of Studies, Rajasthan Technical University, Kota. [2009-2012, 2012-2014].
- Indian Society for Construction Materials and Structures, Roorkee. [LM-705, 2007]
- American Society of Civil Engineers, USA. [ID. 391624, 2002, **Expired**]
- Institute of Urban Transport (India), New Delhi. [LM – 343, 1999]
- Indian Society of Rock Mechanics and Tunneling Technology, New Delhi. [LM – 1008, 1995]
- Indian Roads Congress, New Delhi. [LM – 19832, 1993]
- Indian Society of Technical Education, New Delhi. [LM – 11247, 1992]

XVI. Fellowships / Honors / Nominations

- July 1982 Secondary School **Merit Scholarship** certificate from Rajasthan Government.
- July 1988 – Jan. 1990 Fellowship from MHRD, Government of India for doing M. Tech. at PEC Chandigarh.
- July 1998 – July 2001 Fellowship from MHRD, Government of India for doing Ph.D. at I.I.T. Bombay.
- August 2001 Received travel grant for attending International conference at Kruger National park in South Africa from the organizers, as sole invited delegate from Indian sub-continent.
- 2003 Nominated for 7th and 8th Edition of Who's Who in Science and Engineering, MARQUIS Who's Who, USA.
- 2004 Nominated as INTERNATIONAL EDUCATOR of the Year 2004, International Biographical Centre, Cambridge, England.
- June 2004 Received invitation for CHAIRING A TECHNICAL SESSION (H-5) at Xth WCTR held at Istanbul, Turkey during July 4-8, 2004.

- 2005

Invited for special talk by Allahabad Local chapter of Institution of Engineers (delivered talk on Skybus)

Invited for expert lecture on water conservation by Rotary Allahabad and Rotary Allahabad Elite.

Invited as resource person in ISTE short-term training programme at LD College of Engineering, Ahmedabad, Gujarat, May 29-June 3.

Nominated as LEADING SCIENTISTS of the World 2005, International Biographical Centre, Cambridge, England.
- 2006

Invited as resource person in MOUD sponsored training programme for municipal engineers at MNNIT Allahabad.

Nominated for Who's Who in Asia 2006, MARQUIS Who's Who, USA
- 2007

Invited as resource person in DONAR sponsored short term training programme at IIT Guwahati, January 15-19.
- 2008

Invited as a Theme Speaker for Indo-US Symposium on Mass Transit and Travel Behaviour Research held at IIT Guwahati, February 12-16.

Chaired technical session on Travel Behaviour Research in Indo-US Symposium on Mass Transit and Travel Behaviour Research held at IIT Guwahati, February 12-16.

Member, IRC H-8 Committee on Urban Roads, Streets and Transport, Indian Roads Congress, New Delhi
- 2009

Member, Board of Studies, Rajasthan Technical University, Kota

Invited as resource person for workshop on Sustainable Planning at IISc Bangalore (Dec 12-14, 2009) and for STC on Discrete Choice Modelling at SV NIT Surat (Dec 21-25, 2009)
- 2010

Chaired technical session in International Workshop on Transportation Planning and Implementation methodologies for Developing Countries: Sustainable Transportation, TPMDC-2010, at IIT Bombay, Mumbai, India, December 15-17, 2010.
- 2012

Gave invited presentation in the national symposium on 'Design of roads for disabled pedestrians' on March 2, 2012 organised by SDRS at ISRC, New Delhi. Also chaired a session on 'Role of ICT in sensitization about road safety rules and norms for disabled pedestrians' in the symposium on March 2, 2012.

Invited as a resource person for Half day seminar on Planning for Pedestrian Mobility and Safety on March 24, 2012, organized by Department of Civil Engg IISc Bangalore and TRG of India.

- Chaired technical session in International Workshop on Transportation Planning and Implementation methodologies for Developing Countries, TPMDC-2012, at IIT Bombay, Mumbai, India, December 12-14, 2012.
- 2013 Attended as an expert National Symposium on High Speed Rail at SJCE, Mysore, May 9-10, 2013.
 - 2014 **Commendation Medal for Paper in IRC Annual Meeting**, Guwahati, Jan 2014.
Chaired technical session in International Workshop on Transportation Planning and Implementation methodologies for Developing Countries (TPMDC 2014) at IIT Bombay, India, December 10-12, 2014.
 - 2015 Invited as an expert for evaluation of M Tech Thesis in Transportation Planning at Gujarat Technical University, Ahmedabad.
Chaired technical session in National conference on Transportation and Water Resources Engineering held at LD College of Engineering Ahmedabad, April 24-25, 2015.
 - 2016 Invited as External Examiner to examine M. Tech Thesis of Transportation Engineering section of Department of Civil Engineering, National Institute of Technology, Srinagar, J&K, September 10, 2016.
Invited as Expert Speaker for a talk on Engineering Education in India by University of Petroleum and Energy Studies, Dehradun on August 30, 2016
Invited as Resource person to talk on mobility in urban areas by Uttarakhand Academy of Training, Nainital, in a course for District officials (Ward members, police personals, PWD engineers, etc.) on October 3-4, 2016
Chaired technical session in International Workshop on Transportation Planning and Implementation methodologies for Developing Countries (TPMDC 2016) at IIT Bombay, India, December 19-21, 2016.
 - 2017 Chaired technical session in 4th Conference of Transportation Research Group of India (CTRG) 2017 held at IIT Bombay, India, December 17-20, 2017.

Invited as Transportation Expert for Road Safety Seminar organized by Traffic Police Directorate, Dehradun Uttarakhand, November 25, 2017

- 2018

Member of H-1 and H-8 Committee of Indian Roads Congress for period January 2018 – December 2020

Invited as Resource person to deliver a lecture to M Tech students in Department of Civil Engineering at LD College of Engineering, Ahmedabad, Gujarat, May 02, 2018.

Expert Member, BOS for Civil Engineering, RTU Kota, July 2018-June 2020

Invited as a Resource person to deliver two lectures in a Faculty Development Programme at Shri Vaishnav Vidhyapeeth Vishwavidhyalaya Indore, India, December 6, 2018

- 2019

Invited as a Resource person to deliver three lectures in a 10-week Training programme on Road Safety Audit organized by Indian Academy of Highway Engineers, Noida, India, June 19, 2019

Working as a member of editorial board for 5th Conference of Transportation Research Group of India (CTRG).

Working as Coordinator for a Core Technical Committee on Other Transportation Modes, including NMT and Pedestrians of Transportation Research Group of India.

Invited as a Resource person to deliver two lectures in a 12-Days Training programme on Road Safety Audit organized by Indian Academy of Highway Engineers, Noida, India, December 11, 2019.

- 2020

Working as Coordinator for a Core Technical Committee on Other Transportation Modes, including NMT and Pedestrians of Transportation Research Group of India.

Invited as a resource person to deliver a talk in an International Webinar on Effect of COVID-19 on Sustainable Transportation Development organized by Poornima Institute of Engineering and Technology, Jaipur, Rajasthan, India, held on May 26, 2020.

Invited as a resource person to deliver a talk in One-Week Short Term Training Programme on Forensic Analysis and Applications in Transportation Engineering organised by VRSEC, Vijayawada, Andhra Pradesh, August 29, 2020.

Invited as a resource person to deliver two lectures in a Three-day Training Programme for Government officers on Urban Mobility

Planning in Hill Areas organised by Uttarakhand Academy of Administration, Nainital, Uttarakhand, September 28 and 30, 2020.

Invited as a resource person to deliver a lecture in a TEQIP-III sponsored student workshop on 'Design of Traffic Engineering Facilities' organised by RTU, Kota and SKITMG, Jaipur, December 25-29, 2020.

- 2021

Invited as a resource person to deliver a lecture in a Five-day Faculty Development Programme on Overcoming COVID-19 Challenges through Innovation in Construction Industry organised by PSIT College of Engineering, Kanpur, during December 28, 2020 - January 01, 2021.

Invited as a resource person to deliver a lecture in fifteen-day Road safety Auditors Certification Course conducted under MOU of MoRTH, IRC and IIT Roorkee, organised at IIT Roorkee during Feb 22 – March 08, 2021.

Invited as a resource person to deliver a lecture in short term training programme on 'Data Collection and Analytics in pavement management Systems' organised under Technology Innovation Hub at IIT-BHU, Varanasi, during March 01-08, 2021.

Invited as a resource person to deliver a lecture in fifteen-day Road safety Auditors Certification Course conducted under MOU of MoRTH, IRC and IIT Roorkee, organised at IIT Roorkee during July 19 – August 02, 2021.

Chaired a technical session on Transportation Planning in 8th International Conference on Transportation Systems Engineering and Management (CTSEM 2021) held online at NIT Calicut during August 26-27, 2021 (on August 27, 2021).

Received **The Institution of Engineers (India) Excellence Awards 2021** in the area of Excellence in Academics / Research at a function held at Roorkee Local Chapter on September 15, 2021.

Chaired a technical session on Pavements in 6th International Conference of Transportation Research Group of India (CTRG 2021) held at NIT Trichy during December 14-17, 2021 (on December 15, 2021).

- 2022

Invited as a resource person to deliver a lecture in Five-day Faculty Development Programme titled 'Advances in Highway Technology and Traffic Systems' conducted online by Ramaiah Institute of Technology, Bengaluru, during February 07-10, 2022.

Invited as a resource person to deliver a lecture in a three-day PMGSY training course organised by Transportation Engineering Group, Department of Civil Engineering, IIT Roorkee, during May 19-21, 2022. (May 21, 2022)

Invited as a resource person to deliver two lectures in a fifteen-day Road Safety Auditors Certification course organised by Transportation Engineering Group, Department of Civil Engineering, IIT Roorkee, during May 30 – August 13, 2022. (May 30, 2022)

Nominated as Fellow Indian Geotechnical Society with membership number as LF-0624

Received **Best paper Award on theme Sustainable Transportation** on paper 'Index-based Evaluation of Active Transport Systems: A Glance at Recent Studies'. In 2nd International Conference on Transportation Infrastructure Projects – Conception to Execution (TIPCE2022) held at IIT Roorkee, India, September 14-17, 2022

XVII. Administrative Experience

1. AT IIT Roorkee

1. Prof. in Charge Career Development Cell, 2022-**2023**
2. Convenor Time Table Committee and Member Departmental Academic Programme Committee, 2020-2022
3. Coordinator Principle Technical Agency (PTA), NRRDA, 2018-2021
4. Coordinator Transportation Engineering Group, 2018-2020
5. Associate Dean-Academic Affairs-Evaluation, 2017-2020
6. Member, Institute Safety Committee, 2017-2019
7. Convener, Web Management Committee, 2016 – 2018
8. Convener, Building and Maintenance Committee, 2016 – 2018
9. Member, Departmental Academic Programme Committee, 2016 – 2018
10. Member, Departmental Administrative Committee, 2016 – 2018
11. Chairman, JEE Advanced 2016
12. Vice Chairman, JEE Advanced 2015
13. Member, Departmental Research Committee, 2014 – 2016.
14. Chief Advisor – Hobbies Club, IIT Roorkee, 2014 – 2016.
15. Nominated Member, Senate, IIT Roorkee, 2012 – 2015.
16. Vice Chairman, GATE, IIT Roorkee Office, 2013 – 2014.
17. Member, Training, Tour and Placement Committee, 2012 – 2014.
18. Member, Departmental Academic Committee (DAC), 2010 – 2012.

19. Member, Departmental Time Table Committee, 2010 – 2012.
20. Deputy Chief Advisor (Administration), THOMSO – 2010.
21. In-charge, Transportation Laboratory, 2010 - 2012.
22. CPO, Coordination Committee of Bhawans, 2010 – 2013.
23. Chief Warden, Jawahar Bhawan, DOSW Organisation, June 2009 – March 2013.
24. Warden, Govind Bhawan Mess, DOSW organisation, January 2008 – May 2009.
25. Member, LCD Purchase committee for Institute, 2007.
26. Member, Departmental Academic Committee (DAC), DOCE, 2008-2010
27. Member, Training, Tour and Placement Committee, In-charge Tour and Placement, DOCE, 2008-10
28. Member, Building and Maintenance Committee, DOCE, 2007-08
29. Member, Web Information committee, DOCE, 2007-08

2. AT MNNIT Allahabad (July 2005 – June 2006)

1. Coordinator, State Technical Agency, under National programme – PMGSY.
2. OC Transportation Engineering Lab.
3. Member, Institute Library Committee
4. Member, Geographical Information Systems Cell.
5. Member, Institute Planning and Development Committee.
6. Member, Research and Consultancy Committee.
7. OC Civil Maintenance (Colony) and Member Secretary, Institute Advisory Committee on Civil Maintenance.
8. Member, Departmental Under-Graduate Committee
9. Member secretary, Building and House Allotment Committee

3. AT Engineering College Kota

1. Coordinator, State Technical Agency, under National Programme - PMGSY.
2. Assistant Estate Officer, looking after Civil Engineering maintenance.
3. Assistant Professor, Training and Placement.
4. Member of Parking Committee of College, as an expert and member secretary.
5. Member of Building and House Allotment Committee, as member secretary.
6. Worked as member of Library Committee.
7. In-charge of Road Materials Testing Laboratory.
8. Accreditation work as representative of Civil Engineering Department.
9. Looked after attendance of students, at departmental level.
10. Previously in-charge of Hydraulics Laboratory.
11. Remained in-charge of examination work at departmental level.
12. Worked as internal evaluator of final year Training and Placement Reports.

13. Worked as in-charge of Final year student Projects.
14. Worked as in-charge of Final year student Seminars.
15. Managed activities of Academy of Civil Engineers, as secretary cum treasurer.

XVIII. Personal Particulars

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|---------------------|--|
| Present Designation | Professor |
| Office Address | Room No 209-A&B, First Floor Main Building Department of Civil Engineering Indian Institute of Technology Roorkee Tel. +91 1332 28 5447 |
| Residential Address | C-14, Hill View Apartment Indian Institute of Technology Roorkee – 247 667. Tel. +91 1332 28 6447 Mo. +91 94115 01555 Email: rajat.iitr@gmail.com |
| Permanent Address | A-604, Bagherwal Four Seasons Opp. City Mall Rajeev Gandhi Nagar KOTA – 324 005. Mo. 09460054937 |
| Date of Birth | 18 – 04 – 1967 |
| Father's Name | Shri Jitendra Kumar Rastogi |
| Mother's Name | Smt. Alka Rastogi |
| Spouse Name | Mrs. Deepali Rastogi |

[Rajat Rastogi]