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National Institute of Technology Karnataka,
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Academic Background

1. **PhD** (July, 2013 – February, 2017) in Transportation Engineering from Indian Institute of Technology Roorkee.
2. **M. Tech** (July, 2008 – May, 2010) in Transportation Engineering from Indian Institute of Technology Roorkee.
3. **B. Tech** (July, 2004 – May, 2008) in Civil Engineering from Kerala University.

Professional Experience

No.	Designation	Organization	Duration
1	Assistant Professor	National Institute of Technology Karnataka, Surathkal	October, 2019 - Present
2	Assistant Professor	Amrita Vishwa Vidyapeetham, Coimbatore, Tamil Nadu	July, 2018 – October, 2019
3	Assistant Professor	MES College of Engineering, Kuttippuram, Kerala	August, 2017- July, 2018
4	Assistant Professor	Heera College of Engineering & Technology, Trivandrum	January, 2012- October, 2012
5	Deputy Design Engineer	Feedback Infrastructure Pvt Ltd., Bangalore	August, 2010 – December, 2011

Area of Interest

1. Modelling and Simulation of Traffic Flow
2. Safety of Traffic Operations
3. Driver Behaviour Analysis
4. Traffic Operations at Intersections
5. Gap Acceptance Modelling

Publications

1. **Mohan, M.** and Gopal, K. (2026). "Can Autonomous Vehicles Improve the Traffic Flow Efficiency in Heterogeneous Traffic Environments? A Simulation-based

- Investigation", Transactions on Transport Sciences, 17(2), 58-65. <https://doi.org/10.5507/tots.2026.003>. **Scopus Indexed.**
2. Radovic, D., **Mohan, M.**, Bogdanovic, V. and Maric, B. (2026). "Assessment of critical headway estimation methods across multiple unsignalized intersections", Journal of Traffic and Transport Theory and Practice, 16(1). <https://doi.org/10.7251/JTTTP2601005S>
 3. Aishwarya, G., Mina, M.K., Meena, R., Achipra, A., Radhakrishnan, V. and **Mohan, M.** (2026). Evaluation of Factors Affecting the Service Quality of Mobility Hubs in Developing Economies. Transp. in Dev. Econ. 12, 17 (2026). <https://doi.org/10.1007/s40890-026-00272-6>. **ESCI Indexed.**
 4. Sethulakshmi, G., & **Mohan, M.** (2025). Designing safe and accessible bus stops: an exploration of the interplay between perceived safety at crosswalk and transit ridership. Transportation Planning and Technology, 1–18. <https://doi.org/10.1080/03081060.2025.2566214>. **SCI Indexed.**
 5. Sethulakshmi, G. and **Mohan, M.** (2025). Modelling sidewalk safety perceptions of pedestrians accessing bus stops and uncovering its role in shaping bus ridership: An empirical investigation. Transportation Research Part F: Traffic Psychology and Behaviour, 114, 441-460. <https://doi.org/10.1016/j.trf.2025.06.008>. **SCI Indexed.**
 6. Arichandran, R., **Mohan, M.**, & Sreekumar, M. (2025). Assessment of safety orientation in driving skills aligned with performance: a data-triangulation approach. Traffic Safety Research, 8, e000086. <https://doi.org/10.55329/tbpe4602>. **Scopus Indexed.**
 7. Arathi, A. R, Harikrishna, M, **Mohan, M** and Navandar (2025). "Capacity and Level of Service Analysis of Uncontrolled Intersections: State-of-the-Art Review and the Way Forward for Developing Countries". European Transport Journal, 104, Paper no. 2. https://www.istee.unict.it/sites/default/files/files/ET_2025_104_2.pdf. **ESCI Indexed.**
 8. Arichandran, R., **Mohan, M.** and Sreekumar, M. (2024). "Assessment of Situational Complexities and Vehicle Control Difficulties for Profiling Driving Skills". Transportation in Developing Economies, 11, 1. <https://doi.org/10.1007/s40890-024-00224-y>. **ESCI Indexed.**
 9. Arathi, A. R, Harikrishna, M and **Mohan, M** (2024). "Development of lag size-based safety thresholds for skewed uncontrolled intersections". Advances in Transportation Studies: an International Journal, 63, 49-64. **Scopus Indexed.**
 10. Sethulakshmi, G and **Mohan, M.** (2023). "Modelling personal safety perceptions at bus stop: employing hierarchical confirmatory factor analysis and structural equation approach". Advances in Transportation Studies: an International Journal, 61, 87-102. **Scopus Indexed.**
 11. Sethulakshmi, G and **Mohan, M.** (2023). "Identification of Key Determinants of Personal Safety Perception at Bus Stops using Proportional Odds Logistic Regression". European Transport Journal, 92, Paper no. 11. <https://doi.org/10.48295/ET.2023.92.9>. **ESCI Indexed.**
 12. Arathi, A. R, Harikrishna, M and **Mohan, M** (2023). "Analysis of Critical Gap and Capacity at Skewed Uncontrolled Intersections". European Transport Journal, 93, Paper no. 6. <https://doi.org/10.48295/ET.2023.93.6>. **ESCI Indexed.**
 13. Arathi, A. R, Harikrishna, M and **Mohan, M** (2023). "Simulation-based Performance Evaluation of Skewed Uncontrolled Intersections". International

- Journal of Intelligent Transportation Systems Research, 21, pages 349–360. <https://doi.org/10.1007/s13177-023-00360-6>. **Scopus Indexed**.
14. Radovic, D, **Mohan, M** and Bogdanovic, V. (2022). "Comparative Analysis of Critical Headway Estimation at Urban Single-Lane Roundabouts". *Promet - Traffic & Transportation*, 34 (2), 323-335. <https://doi.org/10.7307/ptt.v34i2.3902>. **SCI Indexed**.
 15. Shubhashree, K. S. and **Mohan, M**. (2022). "Investigating bus stops' influence on saturation flow at signalized intersections in heterogeneous traffic". *Advances in Transportation Studies: an International Journal, Section A*, 58, 213-218. **Scopus Indexed**
 16. **Mohan, M** and Chandra, S. (2021). "Investigating the Influence of Conflicting Flow's Composition on Critical Gap under Heterogeneous Traffic Conditions". *International Journal of Transportation Science and Technology*, 10(4), 393-401. <https://doi.org/10.1016/j.ijtst.2021.01.004>. **Scopus Indexed**.
 17. **Mohan, M** and Chandra, S. (2020). "Capacity Estimation of Unsignalized Intersections under Heterogeneous Traffic Conditions". *Canadian Journal of Civil Engineering*, 47(6), 651-662. <https://doi.org/10.1139/cjce-2018-0796>. **SCI Indexed**.
 18. **Mohan, M.** and Chandra, S. (2020). "Influence of Major Stream Composition on Critical Gap at Two-Way Stop-Controlled Intersections - A Case Study". *Transportation Letters: the International Journal of Transportation Research*, 12(1), 1-8. <https://doi.org/10.1080/19427867.2018.1494896>. **SCI Indexed**.
 19. **Mohan, M** and Kezhuvathodi, V. (2019). "Simulation of gap acceptance at three-legged unsignalized intersections under heterogeneous traffic conditions". *Advances in Transportation Studies: an International Journal, Section A*, 49, 75-88. **Scopus Indexed**.
 20. Nandakumar, R and **Mohan, M.** (2019). "Analysis of traffic growth on a rural highway: A case study from India". *European Transport Journal*, 74. **Scopus Indexed**.
 21. **Mohan, M** and Chandra, S. (2018). "Critical Gap Estimation at Two-Way Stop-Controlled Intersections Based on Occupancy Time Data". *Transportmetrica A: Transportation Science*, 14(4), 316-329. <http://dx.doi.org/10.1080/23249935.2017.1385657>. **SCI Indexed**.
 22. **Mohan, M** and Chandra, S. (2018). "Occupancy Time-based Passenger Car Equivalents for Unsignalized Intersections in India". *Current Science*, 114(6), 1346-1352. <http://dx.doi.org/10.18520/cs/v114/i06/1346-1352>. **SCI Indexed**.
 23. **Mohan, M.** and Chandra, S. (2018). "Three Methods of PCU Estimation at Unsignalized Intersections". *Transportation Letters: the International Journal of Transportation Research*, 10(2), 68-74. <http://dx.doi.org/10.1080/19427867.2016.1190883>. **SCI Indexed**.
 24. **Mohan, M** and Chandra, S. (2017). "Queue Clearance Rate Method for Estimating Passenger Car Equivalents at Signalized Intersection". *Journal of Traffic and Transportation Engineering*, 4(5), 487-495. <http://dx.doi.org/10.1016/j.jtte.2016.12.003>. **Scopus Indexed**.
 25. **Mohan, M.** and Chandra, S. (2016). "Concept of Queue Clearance Rate for Estimation of Equivalency Factors at Priority Junctions". *Canadian Journal of Civil*

Engineering, 43, 593-598. <http://dx.doi.org/10.1139/cjce-2015-0396>. **SCI Indexed.**

26. **Mohan, M** and Chandra, S. (2016). "Review and Assessment of Techniques for Estimating Critical Gap at Two-way Stop-controlled Intersections". European Transport Journal, 61, paper no. 8. **Scopus Indexed.**
27. Chandra, S and **Mohan, M.** (2018). "Analysis of Driver Behaviour at Unsignalized Intersections". Journal of Indian Roads Congress, Vol. 79-2, No. 675, 5-10.
28. Rastogi, R., Chandra, S. and **Mohan, M.** (2014). "Development of Level of Service Criteria for Pedestrians". Journal of Indian Roads Congress, Vol. 75-1, No. 611, 60-69.

Conferences

1. **Mohan, M.** and Shiva, S. D. (2025). "Optimal Site Selection of Electric Vehicle Charging Stations: A Case Study of Mangalore City". 3rd International Conference on Transportation Infrastructure Projects: Conception to Execution, IIT Roorkee.
2. Ashik, N. A and **Mohan, M.** (2025). "Modelling Delay at Signalized Intersections with Approach Gradients". 3rd International Conference on Transportation Infrastructure Projects: Conception to Execution, IIT Roorkee.
3. Amalraj, K. V. and **Mohan, M.** (2025). "Effect of Construction Zone on Highway Traffic Flow". 11th International Conference on Transportation Systems Engineering and Management, MANIT Bhopal.
4. Swaralaya, N. and **Mohan, M.** (2025). "Effect of Rainfall on Saturation Flow and Traffic Characteristics at Signalized Intersections". 11th International Conference on Transportation Systems Engineering and Management, MANIT Bhopal.
5. Arichandran, R., Naik, B. K., Madan, B. G., Prakash, S, Vaishnav, V. K. and **Mohan, M.** (2025). "Effect of Perceived Riding Skills and Sensation Seeking on Risky Behaviour in Powered Two-Wheeler Users". 11th International Conference on Transportation Systems Engineering and Management, MANIT Bhopal.
6. Shashank S. R., **Mohan, M.** and Kumar, D. H. (2024). "Utilization of RAP material in Semi-flexible asphalt mixture." International Conference on Sustainable Infrastructure: Innovations, Opportunities and Challenges, NITK Surathkal.
7. Kumar, A., Krishnakar, H. S., Arichandran, R. and **Mohan, M.** (2024). "Classification of lateral driving events using vehicle response signals for profiling driving behaviors". International Conference on Sustainable Infrastructure: Innovations, Opportunities and Challenges, NITK Surathkal.
8. Krishnakar, H. S., Kumar, A., Arichandran, R. and **Mohan, M.** (2024). "Classification of longitudinal driving events using vehicle response signals for profiling driving behaviors". International Conference on Sustainable Infrastructure: Innovations, Opportunities and Challenges, NITK Surathkal.
9. Arichandran R, **Mohan, M.** and Sreekumar M (2023). "Assessment of Traffic Complexities and Task Difficulties for Profiling Driving Skills". 7th Conference of Transportation Research Group of India, Surat.
10. Ajay Krishnan M J, Sethulakshmi G and **Mohan, M.** (2023). "Factors influencing post encroachment time of road crossing pedestrians near bus stops located in

- mid-block sections.” International Conference on Sustainable Infrastructure: Innovations Opportunities and Challenges, NITK Surathkal.
11. Akhtar, N and **Mohan, M.** (2023). “Driver Skill Profiling using Machine Learning”. Infrastructure and Built Environment: Towards Sustainable and Resilient Societies, IIT Kharagpur.
 12. Arathi. A. R., Madhavan, H and **Mohan, M.** (2023). “Influence of Geometric and Traffic Characteristics on Priority Violations at Uncontrolled Intersections”. International Conference on Innovative Methods and Practical Applications for Cognizant Transportation Systems, College of Engineering Trivandrum, Thiruvananthapuram
 13. Kumar, R and **Mohan, M.** (2022). “Impact of Leading Vehicles of the Queue on Saturation Flow at Signalized Intersections”. 4th National Conference on Recent Advances in Traffic Engineering, SVNIT Surat.
 14. Rahman, S and **Mohan, M.** (2022). “Reduction Of Vehicular Emission at Urban Road Junctions through Traffic Interventions”. 2nd International Conference on Transportation Infrastructure Projects: Conception to Execution, IIT Roorkee.
 15. Ansarsha, A and **Mohan, M.** (2022). “Investigating Accidents at a Newly Opened Highway: A Case Study from Kerala”. 4th National Conference on Traffic Technology, CAPT, Bhopal.
 16. Arathi. A. R., Madhavan, H and **Mohan, M.** (2021). “Machine Learning-Based Gap Acceptance Model for Uncontrolled Intersections under Mixed Traffic Conditions”. 6th Conference of Transportation Research Group of India, Trichy, Paper No. 21.
 17. Arathi. A. R., Madhavan, H and **Mohan, M.** (2021). " Machine Learning-Based Lag Acceptance Model and Safety Thresholds for Lag Time at Uncontrolled Intersections under Mixed Traffic Conditions". 8th Online International Conference on Transportation Systems Engineering and Management, NIT Calicut, Paper No. 133.
 18. **Mohan, M.** and Chandra, S. (2019). “Influence of Conflicting Stream's Composition on Critical Gap at Unsignalized Intersections”. 98th Annual Meeting of Transportation Research Board, Washington D. C. Paper no. 19-00049.
 19. **Mohan, M.** and Chandra, S. (2017). “Queue Clearance Rate Method for Estimating Passenger Car Equivalents at Signalized Intersection”. 96th Annual Meeting of Transportation Research Board, Washington D. C., Paper no. 17-03003.
 20. **Mohan, M.** and Chandra, S. (2016). “Influence of Major Stream Composition on Critical Gap at Two Way Stop-Controlled Intersections”. 95th Annual Meeting of Transportation Research Board, Washington D. C., Paper no. 16-1625.
 21. **Mohan, M.** and Chandra, S. (2015). “New Methods of PCU Estimation at Unsignalized Intersections”. RATE 2015, National Conference, SVNIT Surat, India.
 22. Chandra, S., **Mohan, M.**, and Gates, T. J. (2014). “Estimation of Critical Gap using Intersection Occupancy Time”. 19th International Conference of Hong Kong Society for Transportation Studies, Z. Leng, ed., Hong Kong, pp. 313–320.

Book Chapters

1. Shashank, S.R., Kumar, D.H., **Mohan, M.** (2026). Utilization of RAP Material in Semi-Flexible Asphalt Mixture. In: Balaji, N.C., Venkataramana, K., G. S., P. (eds) Structural Engineering Innovations for Resilient Infrastructure. SIIOC 2024. Lecture Notes in Civil Engineering, vol 849. Springer, Singapore. https://doi.org/10.1007/978-981-95-9000-1_20
2. Arichandran, R., Kumar, A., Krishnakar, H.S. and **Mohan, M.** (2025). "Classification of Lateral Driving Events Using Vehicle Response Signals for Profiling Driving Behaviors". In: Mulangi, R.H., Swamy, A.K., Chian, S.C., Kolathayar, S. (eds) Technologies for Sustainable Mobility and Infrastructures. SIIOC 2024. Lecture Notes in Civil Engineering, vol 673. Springer, Singapore. https://doi.org/10.1007/978-981-96-8448-9_20.
3. Arichandran, R., Krishnakar, H.S., Kumar, A. and **Mohan, M.** (2025). "Classification of Longitudinal Driving Events Using Vehicle Response Signals for Profiling Driving Behaviors". In: Mulangi, R.H., Swamy, A.K., Chian, S.C., Kolathayar, S. (eds) Technologies for Sustainable Mobility and Infrastructures. SIIOC 2024. Lecture Notes in Civil Engineering, vol 673. Springer, Singapore. https://doi.org/10.1007/978-981-96-8448-9_21.
4. Arathi. A. R., Madhavan, H and **Mohan, M.** (2024). "Influence of Geometric and Traffic Characteristics on Priority Violations at Uncontrolled Intersections". In: Veeraragavan, A., Mathew, S., Ramakrishnan, P., Madhavan, H. (eds) Cognizant Transportation Systems: Challenges and Opportunities. IMPACTS 2023. Lecture Notes in Civil Engineering, vol 263. Springer, Singapore. https://doi.org/10.1007/978-981-97-7300-8_8.
5. Ajaykrishnan, M. J., Sethulakshmi, G., **Mohan, M.** (2024). "Factors Influencing Post-encroachment Time of Road Crossing Pedestrians Near Bus Stops Located on Mid-Block Sections". In: Sivakumar Babu, G.L., Mulangi, R.H., Kolathayar, S. (eds) Technologies for Sustainable Transportation Infrastructures. SIIOC 2023. Lecture Notes in Civil Engineering, vol 529. Springer, Singapore. https://doi.org/10.1007/978-981-97-4852-5_16.
6. Sethulakshmi, G. and **Mohan, M.** (2024). "Identifying the Factors Affecting Users' Safety at Bus Stops: A Step Towards Improving Bus Ridership". In Kolathayar, S., Chandra, V. N. and Sreekesava, K. S. (eds) Civil Engineering Innovations for Sustainable Communities with Net Zero Targets, CRC Press, Taylor & Francis. <https://doi.org/10.1201/9781032686899>.
7. Akhtar, N. and **Mohan, M.** (2024). "Driver Skill Profiling Using Machine Learning". In: Goswami, A.K., Aithal, B.H., Maitra, S., Banerjee, A. (eds) Infrastructure and Built Environment for Sustainable and Resilient Societies. IBSR 2023. Sustainable Civil Infrastructures. Springer, Singapore. https://doi.org/10.1007/978-981-97-1503-9_8.
8. Kumar, R. and **Mohan, M.** (2024). "Impact of Leading Vehicles of the Queue on Saturation Flow at Signalized Intersections". In: Dhamaniya, A., Chand, S., Ghosh, I. (eds) Proceedings of the 4th National Conference on Recent Advances in Traffic Engineering, RATE 2022. Lecture Notes in Civil Engineering, vol 377. Springer, Singapore. https://doi.org/10.1007/978-981-99-4464-4_13.
9. Rahman, S and **Mohan, M.** (2023). "Reduction Of Vehicular Emission at Urban Road Junctions through Traffic Interventions". In: Agarwal, A., Velmurugan, S.,

Maurya, A.K. (eds) Recent Trends in Transportation Infrastructure, Volume 2. TIPCE 2022. Lecture Notes in Civil Engineering, vol 347. Springer, Singapore. https://doi.org/10.1007/978-981-99-2556-8_15.

10. Arathi. A. R., Madhavan, H and **Mohan, M.** (2021). "Machine Learning-Based Gap Acceptance Model for Uncontrolled Intersections under Mixed Traffic Conditions". Lecture Notes in Civil Engineering (Proceedings of the Sixth International Conference of Transportation Research Group of India), 3-19. DOI: http://dx.doi.org/10.1007/978-981-19-3494-0_1

Project Guidance

Batch	Completed	On-going
PhD	4 (2 as co-guide)	1
MTech	46	7
BTech	7	2

Funded Projects

1. "Development of Trip Generation Manual for Indian Cities" funded by CSIR-CRRI for Rs. 7.975 Lakhs as the Nodal Principal Investigator.

Awards and Fellowships

1. Best Reviewer Awards from the Journal of Traffic and Transportation Engineering (English Edition) for 2024.
2. International Travel Grant from Science and Engineering Research Board (DST, Govt. of India) for attending the 98th Annual Meeting of Transportation Research Board (TRB), USA from 13 to 17 January, 2019.
3. Council of Scientific and Industrial Research (Govt. of India) assistantship for doctoral research (2013 - 2017).
4. Ministry of Human Resource Development (Govt. of India) fellowship for post-graduate studies (2008 - 2010).

Reviewer for Journals

1. Journal of Transportation Safety and Security
2. Traffic Injury and Prevention
3. Journal of Advanced Transportation
4. Transportation Letters: the International Journal of Transportation Research
5. Ain Shams Engineering Journal
6. Physica A: Statistical Mechanics and its Applications
7. ASCE Journal of Transportation Engineering, Part A: Systems
8. BMC Public Health
9. Journal of Traffic and Transportation Engineering
10. Environmental Science and Pollution Research
11. Advances in Transportation Studies
12. Case Studies on Transport Policy
13. Journal of The Institution of Engineers (India): Series A

14. Transportation Planning and Technology
15. Transportation in Developing Economies
16. Journal of Urban Management