



Dr. Adarsh Yadav (आदर्श यादव)		
Research interests: Traffic Noise Modelling, Traffic Noise Mapping and Mitigation, Interaction between Transport and Environment, Transport Emission & Health, Sustainable Urban Mobility Email: adarsh.crrri@csir.res.in ; adarshyadav171@gmail.com Mob: +91-8755017823 ORCID ID: https://orcid.org/0000-0003-0243-0998		

Post PhD Experience

Position	Institute	Duration
Scientist	CSIR-Central Road Research Institute	April 2026 - Cont'd
Project Fellow	Indian Institute of Technology Roorkee	15 April 2026 - 23 April 2026
Postdoctoral Researcher	Indian Institute of Technology (IIT) Jammu	14 Nov 2025 - 14 April 2026
Postdoctoral Researcher	NOVA Information Management School, Universidade Nova de Lisboa, Portugal	September 2024 - Oct 2025

EDUCATION

Year	Degree/Examination	Institution
2024	Ph.D. (Transportation Engineering)	Indian Institute of Technology (IIT) Roorkee
2017	M.Tech (Transportation Engineering)	Indian Institute of Technology (IIT) Roorkee
2015	B.Tech. (Civil Engineering)	Krishna Institute of Engineering and Technology (KIET), Ghaziabad
2010	Intermediate	UP Board
2010	Highschool	UP Board

PhD Dissertation: Traffic Noise Modelling at Urban Intersections in India

Supervisors: Prof. Manoranjan Parida (Prof. IIT Roorkee), Prof. Pushpa Choudhary (IIT Indore), Prof. Brind Kumar (IIT BHU)

Brief: The research aims to develop intersection-specific traffic noise models and investigate the impact of traffic on dwellers' health in the vicinity of intersections. For this purpose, 342 hours of field data were collected at 19 intersections, and community surveys were conducted among 500 dwellers at different intersections in Kanpur, India. The current study has applied Multiple Linear Regression (MLR), Mutual Information (MI), Artificial Neural Network (ANN), Bayesian Network (BN), Partial Least Square-Structural Equation Model (PLS-SEM), and Necessary Condition Analysis (NCA) approaches to meet the study's objectives. Key research questions addressed include traffic noise prediction, identifying traffic noise influencing variables, determining the direct and indirect effects of variables on traffic noise, investigating necessary conditions for specific noise levels at intersections in mid-sized cities, understanding factors contributing to annoyance, and examining the relationship between traffic noise-induced annoyance and psychological health. The study findings can inform effective traffic noise control and mitigation measures at intersections in mid-sized Indian cities.

M.Tech Dissertation: Traffic Noise Prediction for Six Lane Urban Expressway

Supervisors: Prof. Manoranjan Parida (Prof. IIT Roorkee)

Brief: This study involved data development traffic noise model for expressway using Artificial Neural Network (ANN) approach based on the data collected at the Noida-Greater Noida expressway.

LIST OF PUBLICATIONS

JOURNAL PUBLICATIONS

1. **Yadav, A.**, Jin, T., Barros, J., Koomen, E., & Bacao, F. (2026). Modelling car dependence: Pathways to sustainable urban mobility. *Cities*, 173, 106980. <https://doi.org/10.1016/j.cities.2026.106980>
2. **Yadav, A.**, Parida, M., Choudhary, P. and Kumar, B., (2025). Modelling traffic noise-induced annoyance at intersections and its association with psychological health. *Transportation Research Part D: Transport and Environment*, 139, p.104568. <https://doi.org/10.1016/j.trd.2024.104568>.
3. **Yadav, A.**, Parida, M., Choudhary, P., Kumar, B., & Singh, D. (2024). Traffic noise modelling at intersections in mid-sized cities: An artificial neural network approach. *Environmental Monitoring and Assessment*, 196 (4), 1-20. <https://doi.org/10.1007/s10661-024-12547-9>.
4. **Yadav, A.**, Parida, M., Choudhary, P., & Kumar, B. (2024). Investigating important and necessary conditions to analyse traffic noise levels at intersections in mid-sized cities. *Journal of Environmental Management*, 355, 120515. <https://doi.org/10.1016/j.jenvman.2024.120515>.
5. Parida, M., **Yadav, A.** (2024). Noise abatement strategies for traffic noise: Global and Indian perspectives. *The Journal of Acoustical Society of India: Vol. 51, No. 2, 2024* (pp 64-74).
6. **Yadav, A.**, Parida, M., & Kumar, B. (2023). Statistical modeling of traffic noise at intersections in a mid-sized city, India. *Noise Mapping*, 10(1), 20220164. <https://doi.org/10.1515/noise-2022-0164>.
7. **Yadav, A.**, Mandhani, J., Parida, M., & Kumar, B. (2022). Modelling of traffic noise in the vicinity of urban road intersections. *Transportation Research Part D: Transport and Environment*, 112, 103474. <https://doi.org/10.1016/j.trd.2022.103474>.

CONFERENCES

1. **Yadav, A.**, Jin, T., Koomen, E., Bação, F. (2026). From cars to active modes: Understanding short-trip travel behavior in the 15-minute city framework. *World Conference on Transport Research (WCTR 2026)*. (Paper Accepted)
2. **Yadav, A.**, Parida, M., Choudhary, P., Kumar, B., Kathuria, A. (2026). Modeling Traffic Noise at Intersection Using Interpretable Machine Learning: A Case Study of Kanpur, India. *55th International Congress & Exposition on Noise Control Engineering (INTER-NOISE) 2026*. (Abstract Accepted)
3. **Yadav, A.**, Jin, T., Koomen, E., Bação, F., (2025). Determining the factors influencing car travel dependency: Understanding challenges for realising 15-minute city. *19th International Conference on Computational Urban Planning and Urban Management Conference 2025*, London, United Kingdom, 23-27 June 2025.
4. **Yadav, A.**, Parida, M., Choudhary, P., Kumar, B. (2025). Analysis of Traffic Noise at Intersection Considering the Environmental Noise Capacity. In: Sahu, P.K., Agarwal, A., Kathuria, A., Velaga, N.R. (eds) *Proceedings of the 7th International Conference of Transportation Research Group of India (CTRG 2023)*, Volume 3. CTRG 2023. *Lecture Notes in Civil Engineering*, vol 422. Springer, Singapore. https://doi.org/10.1007/978-981-97-9943-5_1. 17-20th December 2023, SVNIT Surat, India.

5. **Yadav, A.,** Parida, M., Choudhary, P., Kumar, B. (2025). Traffic Noise at Intersections in Mid-Sized City: Understanding the Effect of Primary Influencing Variables. Proceedings of CTSEM 2024 - Road Safety and Traffic Engineering. Recent Advancements in Sustainable and Safe Transportation Infrastructure - Vol. 2. Springer, Singapore. 10th International Conferences on Transportation System Engineering and Management. 19-20 July 2024, VNIT Nagpur, India.
6. **Yadav, A.,** Parida, M., Choudhary, P., & Kumar, B. (2024). Investigating Important and Necessary Conditions to Affect Traffic Noise at Intersection in Mid-Sized Cities. 103rd Annual Meeting of Transportation Research Board (TRB 2024). Washington DC, USA. 7-11 January 2024. (Oral Presentation).
7. **Yadav, A.,** Parida, M., Choudhary, P., & Kumar, B. (2024). Analysis of Traffic Noise at Intersections in Mid-Sized Indian Cities Using Artificial Neural Network. 103rd Annual Meeting of Transportation Research Board (TRB 2024). Washington DC, USA. 7 -11 January 2024. (Oral Presentation).
8. **Yadav, A.,** Parida, M., Choudhary, P., & Kumar, B. (2024). Modelling Traffic Noise Annoyance at Intersections in Mid-Sized Cities: An Integrated Structural Equation Modelling-Artificial Neural Network Approach. 103rd Annual Meeting of Transportation Research Board (TRB 2024). Washington DC, USA. 7 -11 January 2024. (Oral Presentation).
9. **Yadav, A.,** Parida, M., Choudhary, P., Kumar, B. (2024). Analysis of Traffic Noise Annoyance at Intersections in Mid-Sized Indian Cities. In: Manoj, M., Roy, D. (eds) Urban Mobility Research in India (UMI 2023) 2023. Lecture Notes in Civil Engineering, vol 551. Springer, Singapore. https://doi.org/10.1007/978-981-97-8116-4_33. 27–29 October 2023, Delhi.
10. **Yadav, A.,** Parida, M., & Kumar, B. (2022). Analysis of Spatial and Temporal Variation of Noise Level at Intersections of a Mid-Sized City in India. In *INTER-NOISE and NOISE- CON Congress*. Institute of Noise Control Engineering., August 21-24, 2022, Glasgow, Scotland.
11. **Yadav, A.,** Parida, M., & Kumar, B. (2021, August). Determination of passenger car noise equivalent for mid-sized cities in India. In *INTER-NOISE and NOISE-CON Congress and Conference Proceedings* (Vol. 263, No. 6, pp. 526-539). Institute of Noise Control Engineering. Washington D.C., USA, 1-4 August 2021.
12. **Yadav, A.,** Parida, M., & Kumar, B. (2021). Study of Variation of Sound Power Level to Improve Noise Assessment on Bituminous Pavement. 8th International Conferences on Transportation System Engineering and Management. In Book of Abstract. 26-27 August 2021, NIT Calicut, India. (Oral Presentation).

WORK EXPERIENCES

Designation	Organization	Role	Period
Postdoctoral Researcher	NOVA Information Management School, Universidade Nova de Lisboa, Portugal.	Worked on a Project “ENHANCE: Enhancing Sustainable Travel in Small Cities and Outer Metropolitan areas	September 2024-Oct 2025
Assistant Executive Engineer Trainee (Civil)	Indian Telephone Industries (ITI) Limited, Naini plant, Prayagraj, India	Supervised the condition of offices, officer’s apartments, and filed tenders	Sep 2018- Dec 2018

Civil Engineer	Balaji Infratech & Construction Private Limited, India	Supervised construction works for testing tracks at Pithampur, Indore, India - A NATRAX-NATRIP Project	Feb 2018- April 2018
Assistant Professor	Rajkumar Goel Institute of Engineering and Technology, Ghaziabad (UP), India	Taught Transportation engineering subject to the B. Tech (Civil) students.	Sep 2017- Jan 2018

SKILL

Software: MATLAB, SPSS, smartPLS, QGIS, R, Python, MS Office

Analytical Skills: Data analysis, Machine learning, Statistical modelling, Critical and analytical thinking

TEACHING ASSISTANTSHIP

- Traffic Analysis and Design
- Transportation Planning
- Management of Transportation Systems
- Geometric Design of Highways

ACHIEVEMENT/AWARDS

- Cleared Graduate Aptitude Test Examination (GATE, 2015) - (AIR 543)
- Received fellowship from the Ministry of Human Resource and Development (MHRD), India.