

Publications:

Journals (46 Published)

1. Kundu, S., Khan, T., Vivek, A. K., & **Mohapatra, S. S.** (2026). Modeling Lane-Wise Headway Distributions to Formulate Policies for Improving Traffic Operations at Uncontrolled Median Openings. **Journal of Transportation Engineering, Part A: Systems**, 152(4), 04026016. DOI: <https://doi.org/10.1061/JTEPBS.TEENG-9387>
2. Ansari, F. A., Pani, A., & **Mohapatra, S. S.** (2025). Prioritizing worker-centered risk mitigation strategies and technological solutions: a best–worst method study from highway work zones of India. **International Journal of Occupational Safety and Ergonomics**, 1-14. DOI: <https://doi.org/10.1080/10803548.2025.2584879>
3. Kundu, S., Khan, T. Vivek, A. K., Mohapatra, S. S. A Systematic Literature Review Exploring Safety of U-Turns at Uncontrolled Median Openings. **Transportation Research Record**, 1-32. DOI: <https://doi.org/10.1177/03611981251404352>
4. Vivek, A. K., **Mohapatra, S. S.**, & Khan, T. (2025). Perception based investigation exploring recurrence of violations by motorist and non-motorist at rail road grade crossings. **Scientific Reports**, 15(1), 38782. DOI: <https://doi.org/10.1038/s41598-025-22613-y>
5. Mohanty, M., Beriha, B., Biswal, D. R., and **Mohapatra, S. S.** (2025). Experimental investigation on mechanical and fatigue characteristics of cement-treated coal mine overburden materials. **International Journal of Pavement Engineering**, 26(1), 2540075. DOI: <https://doi.org/10.1080/10298436.2025.2540075>
6. Khan, T., Ansari, F. A., and **Mohapatra, S. S.** (2025). Capacity of U-Turning Traffic at Uncontrolled Median Openings on Four-Lane Divided Roads: A Gap Acceptance Based Approach. **Transportation Research Record**, 2679(9), 450-465. DOI: <https://doi.org/10.1177/03611981251338726>
7. Ansari, F. A., Pani, A., Oh, S., & **Mohapatra, S. S.** (2025). Systematic review and meta-analysis exploring safety performance measures of work zone. **International Journal of Injury Control and Safety Promotion**, 32(3), 460-473. DOI: <https://doi.org/10.1080/17457300.2025.2537684>
8. Ansari, F. A., Pani, A., and **Mohapatra, S. S.** (2025). Improving Highway Work Zone Mobility in the Developing World: A Systematic Literature Review of Work Zone Delay Measures and Technological Solutions. **Transportation Research Record**, 2679(3), 1091-1122. DOI: <https://doi.org/10.1177/03611981241283451>
9. Vivek, A. K., **Mohapatra, S. S.** and Padhi, A. (2024). Level of Service Criteria of Rail Road Grade Crossing Based on the Perceptions of Motorist and Non-motorist, *Transportation in Developing Economies*, 10(2), 1-19. <https://doi.org/10.1007/s40890-024-00209-x>
10. Mishra, N. B., Pani, A., Bansal, P., **Mohapatra, S. S.**, & Sahu, P. K. (2024). Towards sustainable logistics in India: Forecasting freight transport emissions and policy evaluations. *Transportation*

- Research Part D: Transport and Environment, 133, 104267.
<https://doi.org/10.1016/j.trd.2024.104267>
11. Tudu, C., Mohanty, M., **Mohapatra, S. S.**, & Nayak, S. (2024). A systematic review exploring the feasibility of waste plastic as different constituents towards sustainable concrete. *Construction and Building Materials*, 428, 136210. <https://doi.org/10.1016/j.conbuildmat.2024.136210>
 12. Mohanty, M., & **Mohapatra, S. S.** (2024). Long-Term Strength and Durability of Cement-Treated Coal Mine Overburden Materials to be Used in Subbase and Base Layers of low-volume Roads. *Journal of Materials in Civil Engineering*, 36(4), 04024035. <https://doi.org/10.1061/JMCEE7.MTENG-16621>
 13. Vivek, A. K., Gupta, S., Khan, T., & **Mohapatra, S. S.** (2024). Strategies to mitigate safety and associated problems at gated rail road grade crossing: a structural equation modelling approach. *Transport Policy*, 146, 19-30. DOI: <https://doi.org/10.1016/j.tranpol.2023.11.002>
 14. Mohanty, M., **Mohapatra, S. S.**, & Padhi, A. (2023). Exploring mechanical and microstructural properties of cement-stabilized coal mine overburden materials. *Road Materials and Pavement Design*, 1-33. DOI: <https://doi.org/10.1080/14680629.2023.2287219>
 15. Khan, T., Vivek, A. K., **Mohapatra, S. S.**, & Patnaik, A. K. (2023). Realistic Approach for Capacity Estimation of U-Turns Under Heterogeneous Traffic Condition. *Transportation Research Record*, 03611981231203227. DOI: <https://doi.org/10.1177/03611981231203227>
 16. Mishra, N. B., Pani, A., **Mohapatra, S. S.**, & Sahu, P. K. (2023). Decoding Private or Commercial Vehicle Ownership Decisions for Low-Carbon Mobility Transitions: A Systematic Review of the Literature. *Transportation Research Record*, 03611981231194346. DOI: <https://doi.org/10.1177/03611981231194346>
 17. Vivek, A. K., & **Mohapatra, S. S.** (2023). An observational study on pedestrian and bicyclist violations at railroad grade crossings: exploring the impact of geometrical and operational attributes. *Journal of Safety Research*, 87, 395-406. DOI: <https://doi.org/10.1016/j.jsr.2023.08.011>
 18. Mishra, N. B., **Mohapatra, S. S.**, Pani, A., & Sahu, P. K. (2023). Exploring variation of length of haul and associated freight transport emission of Indian establishments: A survival analysis approach. *Transport Policy*, 140, 18-29. DOI: <https://doi.org/10.1016/j.tranpol.2023.06.010>
 19. Vivek, A. K., Mohanty, M and **Mohapatra, S. S.** (2023). Evaluation of road users' violation at rail road grade crossings. *Journal of Transportation Engineering, Part A: Systems*, 149(9), 04023086. DOI: <https://doi.org/10.1061/JTEPBS.TEENG-7853>
 20. Vivek, A. K. and **Mohapatra, S. S.** (2023). Level of service analysis of rail road grade crossing from the perspective of walking and bicycling: A perception based study. *Transportation Planning and Technology*, 46(4), 499-524. DOI: <https://doi.org/10.1080/03081060.2023.2201595>

21. Mohanty, M., Biswal, D., and **Mohapatra, S. S.** (2023). A systematic review exploring the utilization of coal mining and processing wastes as secondary aggregate in sub-base and base layers of pavement. **Construction and Building Materials**, 130408, DOI: <https://doi.org/10.1016/j.conbuildmat.2023.130408>
22. Khan, T., & **Mohapatra, S. S.** (2022). Identification of spatial and temporal dilemma zone at mid-block median openings: a gap acceptance based approach. **Transportation Research Record**, 2677 (3), 160-175. DOI: <https://doi.org/10.1177/03611981221114118>
23. Khan, T., Dutta, P., & **Mohapatra, S. S.** (2022). Categorization of gaps at mid-block median openings in heterogeneous traffic: adjudging the applicability of support vector machine and occupancy time methods. **Transportation Letters**, 1-14. DOI: <https://doi.org/10.1080/19427867.2022.2133375>
24. Vivek, A. K., **Mohapatra, S. S.**, and Jena, S. (2022). Evaluation of user perception to define level of service criteria of rail road grade crossing: an exploratory statistical approach. **Transport policy**, 122, 64-76. DOI: <https://doi.org/10.1016/j.tranpol.2022.04.013>
25. Mohanty, M., **Mohapatra, S. S.**, and Nayak, S. (2022). Efficacy of C&D waste in base/subbase layers of pavement—current trends and future prospectives: A systematic review. **Construction and Building Materials**, 340, 127726. DOI: <https://doi.org/10.1016/j.conbuildmat.2022.127726>
26. Khan, T., **Mohapatra, S. S.** and Dey, P. P. (2022). Estimation of conflicting traffic volume using spatiotemporal factor, *Institution of Civil Engineers-Transport*, 1-13. DOI: <https://doi.org/10.1680/jtran.21.00074>
27. Khan, T., and **Mohapatra, S. S.** (2022). Influence of driver and vehicle attributes on operational characteristics of U-turning vehicles, *Current Science*, 122 (6), 705-716. DOI: 10.18520/cs/v122/i6/705-716
28. Khan, T., Vivek, A. K. and **Mohapatra, S. S.** (2021). Comparative appraisal of critical gap estimation techniques in the context of u-turning vehicles, *Transportation Research Record*, 2675(12), 1408-1421. DOI: <https://doi.org/10.1177/03611981211035761>
29. Vivek, A. K., Khan, T. and **Mohapatra, S. S.** (2021). Safety and associated parameters influencing performance of rail road grade crossings: a critical review of state of the art, *Journal of Safety Research*, 79, 257-272. DOI: <https://doi.org/10.1016/j.jsr.2021.09.007>
30. **Mohapatra, S. S.**, Pani, A., and Sahu, P.K. (2021). Examining the impacts of logistics sprawl on freight transportation in Indian cities: implications for planning and sustainable development, *Journal of Urban Planning and Development*, 147(4), 04021050. DOI: [10.1061/\(ASCE\)UP.1943-5444.0000745](https://doi.org/10.1061/(ASCE)UP.1943-5444.0000745).
31. Khan, T. and **Mohapatra, S.S.** (2021) Modelling lateral merging position of vehicles in divided urban roads, *Current Science*, 120(11), 1768-1777.
32. **Mohapatra, S.S.** and Dey, P.P. (2021). Application of cluster analysis to define level of service criteria of U-turns at median openings, *European Transport*, 81(3), 1-17.

33. Yadav, S., Hachem-Vermette, C., Panda, S. K., Tiwari, G. N., and **Mohapatra, S. S.** (2021). Determination of optimum tilt and azimuth angle of BiSPVT system along with its performance due to shadow of adjacent buildings, *Solar Energy*, 215, 206-219.
34. Khan, T. and **Mohapatra, S.S.** (2020). Effect of operational attributes on lateral merging position characteristics at mid-block median opening, *Transportation Letters: The International Journal of Transportation Research*, 13(2), 83-96. DOI: <https://10.1080/19427867.2019.1710037> (Published online)
35. Khan, T. and **Mohapatra, S.S.** (2020). Lateral placement characteristics of u-turning vehicles: a statistical investigation, *Transportation in Developing Economies*, Vol. 6, No. 3. DOI: <https://doi.org/10.1007/s40890-019-0091-7>
36. Dash, S., Mohapatra, S. S., & Dey, P. P. (2019). Estimation of critical gap of U-turns at uncontrolled median openings, *Transportation Letters: The International Journal of Transportation Research*, Vol. 11, No. 5, 229-240.
37. Sil, G., **Mohapatra, S. S.**, Dey, P.P., and Chandra, S. (2019). Service delay and merging time evaluation at median openings, *European Transport*, Issue 71, Paper no. 3.
38. **Mohapatra, S.S.**, and Dey, P.P. (2018). Estimation of U-turn capacity at median openings, *Journal of Transportation Engineering, Part A: Systems*, Vol. 144, No.9, 04018049.
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43. **Mohapatra, S. S.**, Sil, G., and Dey, P. P. (2015). Quantification of LOS at median openings through cluster analysis, *Indian Highways*, New Delhi, Vol. 43, No.3, pp. 25-31.
44. Bhuyan, P. K., and **Mohapatra, S. S.** (2014) Affinity propagation clustering in defining level of service criteria of urban streets, *Transport*, Vol. 29, No. 4, pp. 401-411.
45. **Mohapatra, S. S.**, Bhuyan, P. K., and Rao, K. V. (2012). Genetic algorithm fuzzy clustering using GPS data for defining level of service criteria of urban streets, *European Transport*, Issue 52, Paper no. 7.

46. **Mohapatra, S. S., and Bhuyan, P. K. (2012).** Self Organizing Map of Artificial Neural Network for Defining Level of Service Criteria of Urban Streets, **International Journal for Traffic and Transport Engineering**, Vol. 2, Issue 3, pp. 236-252.