Publications:

Journals (35 Published/Accepted)

1. 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, ASCE. (Accepted)
2. 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
3. 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
4. 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
5. 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
6. 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
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9. 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
10. 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

11. 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
12. 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
13. 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
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17. 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
18. 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
19. **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.
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21. **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.
22. 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.
23. 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***

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24. 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
25. 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.
26. 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.
27. **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 **(Published online)**
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33. 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.
34. **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.
35. **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.

Conferences

1. Khan, T. and **Mohapatra, S.S. "**Comparative Appraisal of Critical Gap Estimation techniques in the Context of U-turning Vehicles", ***Proceedings of the 100th Annual Meeting of Transportation Research Board, Washington, DC***, January 9-13, 2021. *(Accepted for presentation)*
2. Khan, T. and **Mohapatra, S.S.** "Practical Approach for Estimation of Conflicting Traffic Volume at Mid-Block Median Opening", ***Proceedings of the 99th Annual Meeting of Transportation Research Board, Washington, DC****, January 12-16, 2020. (Accepted for presentation)*
3. Khan, T. and **Mohapatra, S.S**. "Effect of driver and vehicle characteristics on service delay of U-turning vehicles: A case study in six-lane divided urban roads of India" , ***The Sixteenth International Conference on Civil, Structural & Environmental Engineering***, Riva del Garda, September 16-19, 2019. **(Paper presented. Travel grant received from ITS Scheme of SERB, DST)**
4. Khan, T. and **Mohapatra, S.S.** "Placement Characteristics of Major Stream Vehicular Traffic at Median Openings", ***International Conference on Advanced Traffic Engineering and Transportation Planning***, Sydney, Australia, February 27-28, 2019. **(Oral Paper Presented)**
5. Khan, T. and **Mohapatra, S.S.** "Lateral Placement Characteristics of U-turning Vehicles: A Statistical Investigation", ***3rd National Conference on Recent Advances on Traffic Engineering***, SVNIT, Surat, India, August 11-12, 2018. **(Oral Paper Presented)**
6. Sil, G., **Mohapatra, S.S**., and Dey, P.P., Chandra, S. "Assessment of service delay and merging time at uncontrolled median openings", ***Proceedings of the 96th Annual Meeting of Transportation Research Board, Washington, DC****, January 8-12, 2017 (CD-ROM).*
7. **Mohapatra, S.S.** and Dey, P.P. "Capacity of U-turn movement at median openings", **In *Proceedings of the 95th Annual Meeting of Transportation Research Board, Washington, DC****, January 10-14, 2016*. (CD-ROM).
8. **Mohapatra, S.S.**, and Dey, P.P. "Modeling the placement of conflicting traffic at uncontrolled median openings", ***3rd Conference of Transport Research Group****, 17th -20th December, 2015, Kolkata, India*. (**Paper presented)**
9. **Mohapatra, S.S.**, Sil, G., and Dey, P.P. "Affinity propagation clustering for quantification of level of service at uncontrolled median opening", ***The 19th International Conference of Hong Kong Society for Transportation Studies***, 13th-15th December, 2014, The Hong Kong Polytechnic University, Hong Kong, Paper id- HKSTS19-308. **(Paper presented. Travel grant received from ITS Scheme of SERB, DST)**
10. **Mohapatra, S.S.**, Dey, P.P. "Modeling the critical position of U-turning vehicles at uncontrolled median openings on 6-lane divided urban roads", ***TPMDC***, IIT Bombay. **(Paper presented)**

11. **Mohapatra, S.S.**, Sil, G., and Dey, P.P. "Defining level of service at uncontrolled median openings through *K*-medoid clustering", ***International Conference on Industrial Engineering Science and Applications (IESA 2014)***, April 2-4, 2014, NIT Durgapur, Durgapur, India. **(Paper presented)**
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13. Sil, G., **Mohapatra, S.S.**, and Dey, P.P. "Service delay at uncontrolled median openings", ***International Conference on Advances in Civil Engineering and Chemistry of Innovative Materials (ACECIM'14)***, 13th – 14th March, 2014, SRM University, Chennai, India.
14. **Mohapatra, S.S.**, Dey, P.P. "Lateral placement of U-turns at uncontrolled median openings on four-lane divided roads", ***International Conference on Advances in Civil Engineering and Chemistry of Innovative Materials*** *(ACECIM'14)*, 13th – 14th March, 2014, SRM University, Chennai, India.
15. **Mohapatra, S.S.**, Sil, G., and Dey, P.P. "Defining level of service at uncontrolled median openings: a clustering approach", ***Transportation Young Researchers Symposium (TYRES 2014)***, 27th – 29th March, 2014, NIT Warangal, Warangal, India. (Paper Presented)