Journal Publications

1. Gurjar, J., **Choudhary, J.,** Aziz, G., & Mehdi, M. (2026). Multi-performance optimisation of bitumen modified with nanoclay and crumb rubber using a fuzzy AHP technique. ***Fuel***, 406, 137177. **(IF: 7.5)**
2. **Choudhary, J.**, Asthana, G., Sukhija, M., Wagh, V.P, Gupta, C. (2024). Effective utilization of waste cement concrete dust in bituminous concrete. ***Proceedings of the Institution of Civil Engineers – Transport***, https://doi.org/10.1680/jtran.23.00045 **(IF: 1.121)**
3. **Choudhary, J.**, Choudhary, M., & Gupta, A. (2024). Applicability of multiple stress creep and recovery test for the analysis of fatigue resistance of bituminous mastics. ***Petroleum Science and Technology,*** **Taylor and Francis**. 17, e01640. DOI: 10.1080/10916466.2023.2175856 **(IF: 1.695)**
4. Mondal, A., Ransinchung, G.D.R.N, **Choudhary, J.** (2023), Sustainable recycling of industrial waste fillers and reclaimed asphalt pavement to produce environmentally feasible warm mix asphalt, ***Innovative Infrastructure Solutions,*** **Springer.** 8(34)**.** DOI:10.1007/s41062-022-01006-4 **(Scopus Indexed)**
5. **Choudhary, J.**, Sukhija, M., & Gupta, A. (2022). A Comparative Analysis of Engineering and Economical Suitability of Bituminous Mastics containing Waste Fillers. ***Case Studies in Construction Materials,*** **Elsevier**. 17, e01640. DOI: 10.1016/j.cscm.2022.e01640 **(IF: 4.934)**
6. **Choudhary, J.**, Kumar, B., & Gupta, A. (2022). Bauxite Residue: A Viable Filler for Asphalt Mixes. ***Gradevinar: Journal of the Croatian Association of Civil Engineers***. 74 (2022), 481-489. DOI: 10.14256/JCE.2391.2018 **(IF: 0.992)**
7. **Choudhary, J.,** Gupta, A., & Saboo, N. (2022). Revising Current Indian Guideline for the Selection of Mineral Filler: Need and A Way Forward, ***Indian Highways,*** **Indian Road Congress,** 50(4), 41-52.
8. **Choudhary, J.,** Kumar, B., & Gupta, A. (2021). Utilization of Waste Glass Powder and Glass Composite Fillers in Asphalt Pavements, ***Advances in Civil Engineering,*** **Hindawi**, 2021, 3235223. DOI: 10.1155/2021/3235223 **(IF: 1.843)**
9. **Choudhary, J.,** Kumar, B., & Gupta, A. (2021). Evaluation of Engineering, Economic and Environmental Suitability of Waste Filler Incorporated Asphalt Mixes and Pavements, ***Road Materials and Pavement Design,*** **Taylor and Francis**, 22(S1), S624-S640. DOI: 10.1080/14680629.2021.1905698 **(IF: 3.792)**
10. Islam, S., Ransinchung, G.D.R.N, **Choudhary, J.** (2021), Sustainable Utilization of Waste Jarosite in Asphalt Pavements, ***Journal of Materials in Civil Engineering,*** **ASCE.** DOI:10.1061/(ASCE)MT.1943-5533.0003938 **(IF: 3.651)**
11. **Choudhary, J.**, Kumar, B., & Gupta, A (2021). Analyzing the Influence of Waste Fillers on the Ageing Susceptibility of Asphalt Concrete, ***International Journal of Pavement Engineering,*** **Taylor and Francis,** DOI: 10.1080/10298436.2021.1927027 **(IF: 4.139)**
12. **Choudhary, J.**, Kumar, B., & Gupta, A. (2021) Potential Utilization of Construction Wastes in Asphalt Pavements as fillers using Ranking Framework, ***Construction and Building Materials,*** **Elsevier,** 277, 122262 **(IF: 7.639)**
13. **Choudhary, J**., Kumar, B., & Gupta, A. (2020). Analysis and Comparison of Asphalt Mixes Containing Waste Fillers Using a Novel Ranking Methodology. ***Journal of Materials in Civil Engineering*****, ASCE**, 32(5), 04020064. DOI: 10.1061/(ASCE)MT.1943-5533.0003137 234. **(IF: 3.651)**
14. **Choudhary, J.**, Kumar, B., & Gupta, A. (2020). Effect of Filler on the Bitumen-Aggregate Adhesion in the Asphalt Mix. ***International Journal of Pavement Engineering*****, Taylor and Francis**, 21:12, 1482-1490, DOI: 10.1080/10298436.2018.1549325. **(IF: 4.139)**
15. **Choudhary, J**., Kumar, B., & Gupta, A. (2020). Feasible Utilization of Waste Limestone Sludge as Filler in Bituminous Concrete. ***Construction and Building Materials*****, Elsevier**, 239, 117781. **(IF: 7.639)**
16. **Choudhary, J**., Kumar, B., & Gupta, A. (2020). Utilization of Solid Waste Materials as Alternative Fillers in Asphalt Mixes: A Review. ***Construction and Building Materials*****, Elsevier,** 234, 117271. **(IF: 7.639)**
17. Islam, S., Ransinchung, G.D.R.N, **Choudhary, J.** (2020), Analyzing the effect of Waste Jarosite as an Alternative Filler on the Engineering Properties of Asphalt Mix, ***Construction and Building Materials,***

Elsevier, 270, 121466 **(IF: 7.639)**

18. **Choudhary, J.**, Kumar, B., & Singh, S (2021). Assessment of Engineering and Environmental Suitability of Bituminous Concrete containing Waste Biomass Ash., ***International Journal of Pavement Research Technology,*** **Springer**, 14, 751-763. DOI: https://doi.org/10.1007/s42947-020- 0242-6 **(Scopus Indexed)**
19. **Choudhary, J.**, Kumar, B., & Gupta, A (2020). Use of Industrial Wastes as Alternative Fillers in Bituminous Concrete, ***Indian Highways,*** **Indian Road Congress,** 48(11), 11-22.
20. **Choudhary, J.**, Kumar, B., & Gupta, A (2020). Performance evaluation of asphalt concrete mixes having copper industry waste as filler. ***Transportation Research Procedia,*** **Elsevier,** 48, 3656-3667. **(Scopus Indexed)**
21. **Choudhary, J**., Kumar, B., & Gupta, A. (2019). Performance evaluation of bauxite residue modified asphalt concrete mixes. ***European Journal of Environmental and Civil Engineering*****, Taylor and Francis**, DOI:10.1080/19648189.2019.1691662234. **(IF: 2.516)**
22. **Choudhary, J**., Kumar, B., & Gupta, A. (2019). Use of Dimension Limestone Sludge as Filler in Asphalt Mix. ***Proceedings of the Institution of Civil Engineers-Construction Materials*****, ICE**, DOI: 10.1680/jcoma.18.00022. **(Scopus/ESCI Indexed)**
23. **Choudhary, J**., Kumar, B., & Gupta, A. (2018). Application of waste materials as fillers in bituminous mixes. ***Waste Management*****, Elsevier**, *78*, 417-425. **(IF: 8.816)**
24. **Choudhary, J.**, Kumar, B., & Gupta, A. (2019). A Study on Engineering Properties of Carbide Lime Modified Asphalt Concrete Mixes. ***Journal of the Eastern Asia Society for Transportation Studies,*** **EASTS**, *13,* 1539-1550.
25. **Choudhary, J.**, Kumar, B., & Gupta, A. (2017). Potential of solid wastes generated in India as mineral fillers in flexible pavements: Opportunities and challenges. ***Waste Management***, *69*, I-III, **Elsevier (IF: 8.816)**

Conference Publications

1. Raj, R., **Choudhary, J.** and Mandrawalia, A.K. (2026), "Suitability Analysis of Geopolymer Concrete Pervious Paver Blocks Utilizing Sugarcane Bagasse Ash and Reclaimed Asphalt Pavement", *105th Annual Meeting of Transportation Research Board.* January 10-15, Washington D.C., USA, 2026.
2. Raj, S., **Choudhary, J.** and Prasad, A. N. (2026), "Sustainable Pervious Paver Blocks: Application of Construction and Demolition Waste and Bio-Medical Waste Ash", 105th Annual Meeting of Transportation Research Board. January 10-15, Washington D.C., USA, 2026.
3. Upadhyay, S., and **Choudhary, J.** and Rajan, B. (2025), "Effect of Filler Content on Long Term Aging Resistance of Porous Asphalt Mixes", *3rd International Conference of Transportation Infrastructure Projects: Conception to Execution*, Roorkee, Uttarakhand, India during 18 to 21st September 2025.
4. Upadhyay, S., **Choudhary, J.,** and Rajan, B. (2025), "Analyzing the Synergistic Effect of Filler and RAP Content on the Performance of OGFC", *11th International Conference on Transportation Systems Engineering & Management (CTSEM)*, Bhopal, M.P, India during 04 to 06 July 2025.
5. Raj. R., **Choudhary, J.,** and Mandrawalia, A.K. (2025), "Development of sustainable pervious paver blocks using geopolymer concrete and RAP", *11th International Conference on Transportation Systems Engineering & Management (CTSEM)*, Bhopal, M.P, India during 04 to 06 July 2025.
6. Kumar, A. and **Choudhary, J.** (2024), Development of sustainable porous asphalt mixes utilizing Rice Husk Ash and Reclaimed Asphalt Pavement", *National Conference on Green Technology & Sustainable Development (GTSD-2024)*, Patna, Bihar, India during 30 to 31 May, 2024.
7. Sharma, M. and **Choudhary, J.** (2024), "Analysing Effect of Biomedical Ash on the Performance of Open Graded Friction Course", *National Conference on Green Technology & Sustainable Development (GTSD-2024)*, Patna, Bihar, India during 30 to 31 May, 2024.
8. Islam, S., Ransinchung, G.D.R.N, **Choudhary, J.** (2022). Imperative Role of Waste Jarosite on Rutting and Fatigue Properties of Asphalt Mastic and Mixes. *Highways and Airport Pavement Engineering, Asphalt*

Technology, and Infrastructure Conference - 2022. April 27, Liverpool, UK.

9. **Choudhary, J**., Kumar, B., & Gupta, A. (2020). Effect of Filler Type and Content on the Rheological Properties of Asphalt Mastics. *RILEM International Symposium on Bituminous Materials (ISBM Lyon 2020)*. December 14-16, Lyon, France (Shifted to Virtual Mode).
10. **Choudhary, J**., Kumar, B., & Gupta, A. (2019). Performance evaluation of industrial waste filler modified asphalt mixes. *98th Annual Meeting of Transportation Research Board*. January 13-17, Washington D.C., USA.
11. **Choudhary, J**., Kumar, B., & Gupta, A. (2019). Performance evaluation of carbide lime modified asphalt mixes. *International Conference of Transportation Infrastructure Projects: Conception to Execution*. January 07-10, Roorkee, India.
12. **Choudhary, J**., Kumar, B., & Gupta, A. (2018). Performance evaluation of waste fillers admixed asphalt mixes. *International Conference of Transportation Research Forum*. August 03-04, Moratuwa, Srilanka.
13. **Choudhary, J**., Kumar, B., & Gupta, A. (2018). Evaluation of mechanical and durability properties of asphalt mixes comprising recycled materials as fillers. *International Conference of Resource Sustainability*. June 27-29, Beijing, China.
14. **Choudhary, J**., Kumar, B., & Gupta, A. (2018). A review of solid waste materials as alternative fillers in asphalt mixes. *International Conference of Resource Sustainability*. June 27-29, Beijing, China.
15. **Choudhary, J**., Kumar, B., & Gupta, A. (2018). Recycling of glass and glass-hydrated lime composite as filler in asphalt mixes. *International Conference of Resource Sustainability*. June 27-29, Beijing, China.
16. Tiwari, P., Nateriya, R. & **Choudhary, J**. (2018). Investigation of Recycled Demolition Waste over Mechanical Properties of Cement Concrete. *International Conference of Resource Sustainability*. June 27-29, Beijing, China.
17. **Choudhary, J**., Kumar, B., & Gupta, A. (2018). Potential of Bauxite Residue as Filler in Asphalt Concrete. *97th Annual Meeting of Transportation Research Board*. January 7-11, Washington D.C., USA.
18. **Choudhary, J**., Kumar, B., & Gupta, A. (2018). Investigation of using Dimension Limestone Slurry Waste as Filler in Asphalt. *97th Annual Meeting of Transportation Research Board*. January 7-11, Washington D.C., USA.
19. **Choudhary, J**., Kumar, B., & Gupta, A. (2017). Suitability of Various Indian Wastes as Fillers in Bituminous Mixes. *National Conference on New Technology for Road Construction*. December 8-9, Lucknow, India
20. **Choudhary, J**., Kumar, B., Ohri, A., & Gupta, A. (2017). Road Accident Data Collection Management and Analysis System Developing a Suitable Framework for Varanasi City. *12th International Conference of Eastern Asia Society for Transportation Studies*. September 18-21, Ho Chi Minh City, Vietnam.
21. **Choudhary, J**., Kumar, B., & Gupta, A. (2017). A Preliminary Investigation into the Physical and Chemical Properties of Industrial Wastes used as Mineral Fillers in Asphalt Mixes. *10th International Conference on Pavement Technology*. August 8-10, Hong Kong, China.
22. **Choudhary, J**., Kumar, B., & Gupta, A. (2017). Investigation of Marshall Characteristics & Durability of Glass Powder Incorporated Dense Graded Asphalt. *International Conference on Advances in Highway Engineering & Transportation Systems*. July 21, Negombo, Srilanka.
23. **Choudhary, J.,** & Gupta, A. (2017). Utilization of Secondary Materials in Hot Mix Asphalt as Filler: An Overview. *15th REAAA (Road Engineering Association of Asia and Australasia) Conference*. March 22-24, Bali, Indonesia.
24. **Choudhary, J**., Kumar, B., & Gupta, A. (2016). Preliminary Characterization of Waste materials as Mineral Filler for Hot Mix Asphalt. *12th International Conference of Transportation Planning and Implementation Methodology for Developing Countries.* December 19-21, Mumbai, India.
25. **Choudhary, J.,** & Sharma, A. (2016). Design and Feasibilty Analysis of Personal Rapid Transit Network for Indian Heritage City. *38th Australasian Transport Research Forum*. November 16-18, Melbourne, Australia.
26. **Choudhary, J**., Kumar, B., & Gupta, A. (2016). Laboratory Evaluation on Recycling Waste Industrial Glass Powder as Mineral Filler in Hot Mix Asphalt. *Civil Engineering Conference-Innovation for Sustainability*. September 9-10, Hamirpur, India.

27. **Choudhary, J**., Ohri, A., & Kumar, B. (2015). Spatial and Statistical Analysis of Road Accident Hotspots using GIS. *3rd Conference of Transportation Research Group of India.* December 18-21, Kolkata, India.
28. **Choudhary, J**., Ohri, A., & Kumar, B. (2015). Identification of Road Accident Hot Spots in Varanasi using QGIS. *National Conference on Open Source GIS: Opportunities and Challenges.* October 9-10, Varanasi, India.
29. **Choudhary, J**., Ohri, A., & Kumar, B. (2015). GIS Based Road Accident Database and Analysis System for Varanasi. *International Conference on Sustainable Energy and Built Environment.* March 12-13, Vellore, India.
30. **Choudhary, J**., Ohri, A., & Kumar, B. (2015). Emerging Methodologies for Road Accident Hot Spot Identification. *National Conference on Sustainable Infrastructure Development.* February 26-27, Chandigarh, India.

Book Chapters/ Editorial Notes

1. Varun B. S. S., **Choudhary, J.**, & Gupta, A. (2021). A Preliminary Approach for Comparative Life Cycle Assessment of Flexible and Rigid Pavements - A Case Study. *Green and Intelligent Technologies for Sustainable and Smart Asphalt Pavements* 574-578, **CRC Press**. **(Scopus Indexed)**
2. **Choudhary, J.**, Kumar, B., & Gupta, A. (2020). Effect of Waste Fillers on the Rutting and Fatigue Behavior of Asphalt Mastic and Mixes. *Proceedings of the 9th International Conference on Maintenance and Rehabilitation of Pavements-MAIREPAV9* 385-395, **Springer**. **(Scopus Indexed)**
3. Asthana, G., **Choudhary, J.**, Kumar, B., & Gupta, A. (2020). Experimental Investigation of Waste Glass Powder as Filler in Asphalt. *Recent Developments in Waste Management* 261-270, **Springer**. **(Scopus Indexed)**
4. Singh, S., **Choudhary, J.**, Kumar, B., & Gupta, A. (2020). Effects of using Kota Stone as Filler on Mechanical Properties of Asphalt Concrete Mixes. *Recent Developments in Waste Management* 249-259, **Springer**. **(Scopus Indexed)**
5. Sharma, A., Parida, M., Sekhar, C. R., & **Choudhary, J.** (2020). Assessing the Impact of Bus Arrival Rate on the Bus Lane Capacity: A Simulation-Based Approach. *Transportation Research* 29-38. **Springer**. **(Scopus Indexed)**
6. **Choudhary, J**., Kumar, B., & Gupta, A. (2019). Influence of filler types and their quantities on bitumen-aggregate adhesion. *Bituminous mixtures and pavements VII: Proceedings of the 7th international conference* 689-698. **Taylor and Francis**. **(Scopus Indexed)**
7. **Choudhary, J.**, Kumar, B., & Gupta, A. (2018). Performance of Asphalt Mix with Glass and Glass-Lime Composite Fillers. *Advances in Materials and Pavement Performance Prediction -Proceedings of the International AM3P Conference*. 387-390, **Taylor and Francis**. **(Scopus Indexed)**

Research Grants

1. ***Project Title:*** Development & Performance Evaluation of Waste Derived Lignin Binder as a Green Alternative to Petroleum-Based Asphalt in Bituminous Pavements, ***Role*****:** Co-Principal Investigator, ***Funding Agency*****:** Anusandhan National Research Foundation, India, ***Amount of Grant Sanctioned:*** Rs, 70,21,920/- ***Status:*** Ongoing

2. ***Project Title:*** Sustainable utilization of Kota stone dust and sugarcane bagasse ash on dense and gap graded bituminous mixes, ***Role*****:** Principal Investigator, ***Funding Agency*****:** Dean (Research & Consultancy), MNNIT Allahabad ***Amount of Grant Sanctioned:*** Rs, 5,00,000/- ***Status:*** Ongoing

3. ***Project Title:*** Sustainable utilization of agriculture and industrial wastes for the construction of mechanically superior and cost- effective Flexible Pavements, ***Role*****:** Principal Investigator, ***Funding Agency*****:** MITS Gwalior ***Amount of Grant Sanctioned:*** Rs, 2,74,000/- ***Status:*** Surrendered (Left parent institute)