

# KAPIL MEENA

## Curriculum Vitae

Indian Institute of Technology Kharagpur, Kharagpur, India

Indian Institute of Technology Roorkee, Roorkee, India

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 [Website](#)

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### Education

- 2022–Present **PhD**, Ranbir and Chitra Gupta School of Infrastructure Design & Management, Indian Institute of Technology Kharagpur, Kharagpur, India.  
Research Focus: Travel Behaviour, Mobility and Air Quality
- 2019–2021 **Master of Technology**, Transportation Engineering Group, Civil Engineering Department, Indian Institute of Technology Roorkee, Roorkee, India.  
Thesis Focus: Travel Behaviour, Mobility and Air Quality
- 2015–2019 **Bachelor of Technology**, Civil Engineering, Rajasthan Technical University, Kota, India.

### Publications

#### Journal Articles

- 2025 **Meena, Kapil Kumar**, Aditya Kumar Singh, and Arkopal Kishore Goswami. Dynamic route planning for urban green mobility: Development of a web application offering sustainable route options to commuters. *Transportation Research Record*. SAGE Publications, May 2025.
- 2025 B. S. Manoj, **Meena, Kapil Kumar**, Hiral Panchal, Gajanand Sharma, and Arkopal Kishore Goswami. Modeling bicycle choice behavior and its potential health impact: Case of first/last mile access to suburban rail. *International Journal of Sustainable Transportation*, pages 1–21. Informa UK Limited, October 2025.
- 2025 B. S. Manoj, **Meena, Kapil Kumar**, and Arkopal K. Goswami. A prioritization framework to identify key attributes of transit-oriented development (tod) using multi-criteria decision-making (mcdm) approach: an indian context. *Sustainable Transport and Livability*, volume 2. Informa UK Limited, July 2025.
- 2024 **Meena, Kapil Kumar**, Rujhaan Taneja, and Amit Agarwal. Impact of air pollution on informed decision-making for choice of a travel mode. In *2024 16th International Conference on COMmunication Systems & NETworkS (COMSNETS)*. IEEE, January 2024.
- 2024 **Meena, Kapil Kumar** and Arkopal Kishore Goswami. A review of air pollution exposure impacts on travel behaviour and way forward. *Transport Policy*. Elsevier, May 2024.
- 2024 **Meena, Kapil Kumar**, Deepak Bairwa, and Amit Agarwal. A machine learning approach for unraveling the influence of air quality awareness on travel behavior. *Decision Analytics Journal*, volume 11, page 100459. Elsevier, June 2024.
- 2023 **Meena, Kapil Kumar**, Vikram Singh, and Amit Agarwal. Perception of commuters towards air quality in delhi. *Journal of Transport & Health*, volume 31, page 101643. Elsevier, July 2023.
- 2021 Vikram Singh, **Meena, Kapil Kumar**, and Amit Agarwal. Travellers' exposure to air pollution: A systematic review and future directions. *Urban Climate*, volume 38, page 100901. Elsevier, July 2021.

## In Conference Proceedings

- 2026 Meena, Kapil Kumar and Arkopal Kishore Goswami. Not all travellers think alike: Segmenting travel behaviour under air pollution exposure using a hybrid latent class and discrete choice approach. In *Transportation Research Board (TRB) 2026 Annual Meeting*, Washington, DC, 2026. TRB. Accepted for presentation and publication.
- 2026 Anshul Singh, Meena, Kapil Kumar, Gajanand Sharma, Arkopal Kishore Goswami, and Sudheer Mishra. Developing an integrated walkability score using image-based feature extraction and user preferences. In *Transportation Research Board (TRB) 2026 Annual Meeting*, Washington, DC, 2026. TRB. Submitted.
- 2025 Meena, Kapil Kumar, Aditya Kumar Singh, and Arkopal Kishore Goswami. Dynamic route planning for urban green mobility: Development of a web application offering sustainable route options to commuters. In *7th International Conference of Transportation Research Group of India (CTRG-2023)*, SVNIT Surat, India, 2025. CTRG.
- 2025 Anusha Sumbhate, Meena, Kapil Kumar, and Arkopal Kishore Goswami. Assessing the air pollution exposure to school children in different modes of transport while commuting to school: A case of kharagpur, india. In *Proceedings of the Eastern Asia Society for Transportation Studies (EASTS)*. EASTS, 2025. Accepted.
- 2025 B. S. Manoj, Meena, Kapil Kumar, and Arkopal Kishore Goswami. A prioritization framework to identify key attributes of transit-oriented development (tod) using a multi-criteria decision-making approach: An indian context. In *1st World Symposium on Sustainable Transport and Livability (WSSTL-2025)*, IISc Bengaluru, India, 2025. WSSTL.
- 2025 Rasagna Kodukulla, Meena, Kapil Kumar, Gajanand Sharma, and Arkopal Kishore Goswami. Accessibility assessment of urban public transit to key facilities through spatial analysis – a case study of delhi. In *Transportation Infrastructure Projects: Conception to Execution (TIPCE)*, IIT Roorkee, India, 2025. TIPCE. Accepted.
- 2025 S. Dasgupta, Meena, Kapil Kumar, D. Majumdar, and Arkopal Goswami. Air pollution exposure among kolkata's auto-rickshaw drivers: Pm variability, health risks, and predictive modeling. In *Energies, AEEE India*. AEEE, 2025. Accepted.
- 2024 Anusha Sumbhate, Meena, Kapil Kumar, and Arkopal Kishore Goswami. Breathable modes to school: Assessing the air pollution exposure of travel choices for school children in urban environments. In *52nd Urban Affairs Association (UAA) Annual Meeting*, Nashville, Tennessee, USA, 2024. UAA.
- 2024 P. Mohanty, Meena, Kapil Kumar, and Arkopal Kishore Goswami. Analysing user behaviour along dedicated bicycle facilities in an urban environment. In *52nd Urban Affairs Association (UAA) Annual Meeting*, Nashville, Tennessee, USA, 2024. UAA.
- 2024 B. S. Manoj, Meena, Kapil Kumar, Hiral Panchal, Gajanand Sharma, and Arkopal Goswami. Assessing the willingness to bicycle for the first mile to the mumbai suburban rail. In *17th International Association for Travel Behaviour Research (IATBR)*, Vienna, Austria, 2024. IATBR.
- 2023 Meena, Kapil Kumar and Arkopal Kishore Goswami. A review of air pollution exposure impacts on travel behaviour and way forward. In *16th World Conference on Transport Research (WCTR)*, Montréal, Canada, 2023. WCTR.
- 2022 Meena, Kapil Kumar, Ranjani Kumar, and Arkopal Kishore Goswami. On-road pollution exposure in multiple transport micro-environments: A case study of tier-2 and tier-3 cities in india. In *14th International Conference on Transport Planning and Implementation Methodologies for Developing Countries (TPMDC)*, IIT Bombay, India, 2022. TPMDC.

## In The Media/ News

- 2025 Ashmita Gupta. lit-kgp app helps commuters pick 'greener' routes on the road. The Hindu, June 2025. Feature article on DRUM web app developed by IIT Kharagpur researchers, including Kapil Kumar Meena.

## Experience

### World Resource Institute, India

November, 2021 – **Comparing the inhaled dose and exposure experienced by the commuters inside vehicle with reference to outside ambient condition.**  
March, 2022

Advisor : **Aparna Vijaykumar**, Program Manager - Electric Mobility, WRI India ([Personal Web-page](#))

## Projects

- 2024 - 2025 **Technologies for Urban Transit to Enhance Mobility and Safe Accessibility (TUTEM)** by Asian Development Bank at Indian Institute of Technology Kharagpur, India
- 2022 - 2022 **Demand for Mobility as a Service (MaaS) in Indian Context** at Indian Institute of Technology Kharagpur, India
- 2020 - 2021 **Air Quality Perception of Commuters in Delhi** at Indian Institute of Technology Roorkee, India
- 2019 - 2019 **Compressive behaviour of double skin UPVC tubes infilled with concrete** at Rajasthan Technical University Kota, India

## Awards / Scholarships / Academic Achievements

- Research outcome featured in The Hindu (<https://www.thehindu.com/sci-tech/energy-and-environment/iit-kgp-app-helps-commuters-pick-greener-routes-on-the-road/article69644558.ece>)
- "Best Presentation Award" at Research Scholar Day, IIT Kharagpur.
- Travel grant to visit University of Leeds, for research exchange by IIT Kharagpur.
- "Best Poster Presentation" at the Cyber-Physical System Summit (CyPhySS 2023)
- MHRD Fellowship
- Accomplished 559 rank in GATE 2019 from Civil Engineering
- Awarded Honors degree in Civil Engineering

## Short Term Courses/ Expert Lecture Delivered/ Workshops

- Google India, Bangalore Delivered an invited talk presentation on the Dynamic Route Planning for Urban Mobility (DRUM) application, showcasing sustainable routing strategies that integrate air pollution exposure and energy efficiency into commuter decision-making (June 2025).
- January, 2022 **Expert lecture delivered on the topic “Data Visualization with Tableau”** at Swastik Edustart, New Delhi
- 2022 **Tools for Transportation Data Analysis & Modelling (TTDAM) - 2022** at Department of Civil Engineering, National Institute of Technology, Calicut
- 2020 **Regional Workshop on “Quality Control, New Materials and Techniques” in Road Sector-2020 in collaboration with Indian Road Congress** at Indian Institute of Technology Roorkee, India
- 2019 **Concrete Mix Design Workshop** at Wonder Cement Ltd, Jaipur

## Skills/ Software

- Documentation L<sup>A</sup>T<sub>E</sub>X, JabRef
- Programming Languages Python, R
- Web Technologies Javascript, ReactJS
- Database MySQL, MongoDB

Data Analysis Tableau, NLOGIT, SPSS, QGIS, MiniTab

## Peer Reviewer

- Elsevier Transportation Research: Part A
- Elsevier Transport Policy
- Elsevier Research in Transportation Business & Management (RTBM)
- Sage Transportation Research Record (TRR)
- Springer Transportation in Developing Economies

## Membership

- 2024 - Transportation and Development Institute of ASCE  
Present
- 2023 - Transportation Research Group of India  
Present
- 2022 - World Conference on Transport Research Society (WCTR)  
Present

## Course/Conference Organised

- Coordinator Annual Conference on Infrastructure and Built Environment: Towards Sustainable and Resilient Societies (IBSR) at IIT Kharagpur, 2023
- Coordinator 2nd Annual Conference on Infrastructure and Built Environment: Towards Sustainable and Resilient Societies (IBSR) at Kolkata, 2024

## Positions of Responsibility & Extra Curriculars

- 2024 Overall Coordinator of 2<sup>nd</sup>Annual Conference on "Infrastructure and Built Environment: Towards Sustainable and Resilient Societies" (IBSR), IIT Kharagpur.
- 2023 Overall Coordinator of Annual Conference on "Infrastructure and Built Environment: Towards Sustainable and Resilient Societies" (IBSR), IIT Kharagpur.
- 2022-2023 Department Social Media Head, IIT Kharagpur.
- 2020-2021 Department Placement Representative, IIT Roorkee.
- 2014 Winner at Regional level in National Children Science Congress, Department of Science & Technology(DST), Government of India.

## Teaching Assistantship

- Spring, 2023 : CE13001: Engineering Drawing And Computer Graphics, IIT Kharagpur.
- Fall, 2022 : NPTEL: Multimodal Urban Transport System (MUTS), IIT Kharagpur.
- Spring, 2020 : CEN 662: Intersection Design and control, IIT Roorkee.
- Fall, 2019 : CEN 562: Pavement Analysis and design, IIT Roorkee.

## Referees

### Prof. Amit Agarwal

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### Mr. Pawan Mulukutla

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