

# Resume

**Name:** Dr. Bandhan Bandhu Majumdar  
**Current Designation:** Assistant Professor  
Department of Civil Engineering  
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## EDUCATIONAL QUALIFICATION

- PhD- Civil Engineering (2017), Indian Institute of Technology Kharagpur, India
  - M. Tech. – Civil Engineering (2012), Indian Institute of Technology Bombay, India  
Specialization: Transportation Systems Engineering
  - B. E - Civil Engineering (2010), Jadavpur University, West Bengal, India
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## PROFESSIONAL EXPERIENCE

- Assistant Professor (January, 2018- July 2022)  
Department of Civil Engineering  
Birla Institute of Technology & Science, Pilani Hyderabad Campus
  - Assistant Professor (Aug, 2022- Present)  
Department of Civil Engineering  
National Institute Technology Durgapur
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## RESEARCH INTERESTS

- Travel behaviour and choice modelling
  - Non-motorized Transport
  - Sustainable Transportation
  - Transportation Safety
  - Road Traffic Crash Data Analysis and Evaluation
  - Traffic Engineering
  - Geometric design consistency
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## PhD Thesis Guidance at BITS Pilani Hyderabad Campus

- Mallikarjuna Patil. Electric two-wheeler choice modelling in Indian settings. (Jan, 2019- 2022)
  - SIDDARTHA KORAMATI. Urban Road Safety Assessment. (Jan, 2020- ongoing)  
Co-supervisor (DST-SERB JRF)
  - Naveed F. Congestion Pricing and Behavioral Implication (July, 2020- ongoing) Co-supervisor (GCRF Project )
  - Md. Zabiulla. Electric Assist Bicycle Planning (August, 2021- ongoing) Co-supervisor (BITS La Trobe Project)
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## ME Thesis Guidance at BITS Pilani Hyderabad Campus

- Nikitha Vendoti. “A user perception based analysis of factors influencing safety and walkability of pedestrian facility in Indian Urban settings” (2018-19)

- Malavika Jayakumar. “Transportation and Quality of Life” (2019-2020) (Co-supervisor)
  - M. Hemanth “Congestion pricing strategies” (2019-2020) (Co-supervisor with Dr. Prasanta Sahu)
  - Aparna Joshi. “User perception towards BOPIS, BSSD” (2020-2021) (Co-supervisor with Dr. Prasanta Sahu)
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## RESEARCH/CONSULTANCY PROJECT INVOLVEMENT

*As an Assistant Professor in BITS Pilani Hyderabad campus involved in the following research/consultancy projects*

Details of the projects involved at BITS Pilani Hyderabad Campus

1. **Project title:** Transport Policy Interventions to curb particulate matter emissions in Chanigarh  
**Role:** Indian Co-PI  
**Sponsoring Agency:** Global Challenge Research Fund, UK  
**Awarded Cost:** 26 Lakhs
  2. **Project title:** Pre-feasibility study of Battery Electric buses in India  
**Role:** Indian-PI  
**Sponsoring Agency:** Global Challenge Research Fund, UK  
**Awarded Cost:** 13 Lakhs
  3. **Project title:** Congestion Pricing: Planning for optimal strategies and commuters' behavioural implications under different pricing schemes  
**Role:** Co-PI  
**Sponsoring Agency:** SPARC, MHRD  
**Awarded Cost:** 30 Lakhs
  4. **Project title:** Development of a comprehensive methodology to improve road traffic safety in Indian urban roadways based on advanced statistical techniques  
**Role:** PI  
**Sponsoring Agency:** DST-SERB Start up Research Grant Awarded Cost, DST-SERB Start up Research Grant Awarded Cost  
**Awarded Cost:** 11.39Lakhs
  5. **Project title:** Development of Pedestrian Facility Assessment Tool for Improving Pedestrian's safety condition in Hyderabad  
**Role:** PI  
**Sponsoring Agency:** AIA. Hyderabad  
**Awarded Cost:** 1 Lakh
  6. **Project title:** Urban road safety management through evaluation of operating speed and geometric consistency  
**Role:** PI  
**Sponsoring Agency:** BITS Pilani Hyderabad Campus (Additional Competitive Research Grant)  
**Awarded Cost:** 8 Lakhs
  7. **Project title:** An investigation on factors influencing bicycling and walking in urban Indian context: A case study of Hyderabad, India  
**Role:** PI  
**Sponsoring Agency:** BITS Pilani Hyderabad Campus (Research Initiation Grant)
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## PUBLICATIONS

### Referred Journal Publications

1. Marazi N, Majumdar BB, Sahu PK and Potoglou D. (2022). Investigation of Congestion Pricing Acceptability Among Commuters: An Indian Perspective. *Research in Transportation Economics*. (Accepted, In press).
2. Patil M, Majumdar, BB and Sahu PK. (2022). A Comparative Evaluation of Total Cost of Ownership (TCO) Between Electric Two-wheelers (E2W) and Motorized Two-wheelers (M2W) in Indian perspective. *Transportation Research Record* (Accepted, In press)
3. Patil, M.and Majumdar, B.B. (2021). An Investigation on the Key Determinants Influencing Electric Two-Wheeler Usage in Urban Indian Context. *Research in Transportation Business & Management*, 2021, In press. (DOI:<https://doi.org/10.1016/j.rtbm.2021.100693>)
4. Majumdar BB, Jayakumar M, Sahu PK\* and Potoglou D. (2021). Identification of key determinants of travel satisfaction for developing policy instrument to improve quality of life: An analysis of commuting in Delhi. *Transport Policy*. Vol. 110, pp. 281-292 (DOI. <https://doi.org/10.1016/j.tranpol.2021.06.012>)
5. Patil, M.; Majumdar, B.B.;Sahu, P.K.; Truong, L. (2021). Evaluation of prospective users' choice decision towards Electric Two-Wheelers using a Stated Preference survey: An Indian perspective. *Sustainability* 13(6), 3035; (DOI:<https://doi.org/10.3390/su13063035>).
6. Patil M and Majumdar BB.(2021). Prioritizing key attributes influencing electric two-wheeler usage: A multi criteria decision making (MCDM) approach – A case study of Hyderabad, India. *Case Studies in Transport Policy*. 9(2). pp 913-929. (DOI. <https://doi.org/10.1016/j.tranpol.2021.06.012>)
7. Majumdar B.B., Vendotti N, Patil M and Sahu PK (2021). A Pedestrian Satisfaction Based Methodology for Prioritization of Critical Sidewalk and Crosswalk Attributes Influencing Walkability. *Journal of Urban Planning and Development, American Society of Civil Engineering*, 147(3): 04021032.DOI. [https://doi.org/10.1061/\(ASCE\)UP.1943-5444.0000718](https://doi.org/10.1061/(ASCE)UP.1943-5444.0000718).
8. Patil M., Majumdar BB, and Sahu P.K. (2021) Evaluating Pedestrian Crash Prone Locations to Formulate Policy Interventions towards Improved Safety and Walkability at Sidewalks and Crosswalks. *Transportation Research Record: Journal of the Transportation Research Board*. DOI: 10.1177/03611981211004127
9. Patil M, Majumdar B.B., Sahu PK. (2021). Life Cycle Cost Analysis of Electric Two-wheelers in India Context. *Journal of East Asian Society for Transport Studies* (Conditionally accepted).
10. Chandra A, Pani A, Sahu P, Majumdar BB and Sharma S. (2021). Identifying large freight traffic generators and investigating the impacts on travel pattern: A decision tree approach for last-mile delivery management. *Research in Transportation Business & Management*. In press.
11. Majumdar B.B., Dissanayake D, Rajput AS, Saw Y and Sahu P.K. (2020) Prioritizing Metro Service Quality Attributes to Facilitate Transit Agency Interventions Leading to Enhanced Commuter Experience- TOPSIS Ranking and Importance-Satisfaction Analysis methods. *Transportation Research Record*. Vol. 2674(6) 124–139.
12. Chandra A., Pani A, Sahu P and Majumdar BB. (2020). Designing Freight Traffic Analysis Zones for Metropolitan Areas: Identification of Optimal Scale for Macro-level Freight Travel Analysis. *Transportation Planning and Technology* (DOI:<https://doi.org/10.1080/03081060.2020.1780711>, Vol. 43, Issue: 6)

13. Pani A, Sahu PK and Majumdar B.B, (2020). Expenditure-based segmentation of freight travel markets: Identifying the determinants of freight transport expenditure for developing marketing strategies. *Research in Transportation Business & Management*, <https://doi.org/10.1016/j.rtbm.2020.100437>.
14. Majumdar B.B and Mitra S. “On identification and prioritization of motivators and deterrents of bicycling”. *Transportation Letters*. Pages 1-13. DOI: <https://doi.org/10.1080/19427867.2019.1671042>
15. Guharay A., Majumdar BB and Sahu PK (2019) Identification and Evaluation of Key Determinants of Two-Wheeler Ownership Model in the Context of Developing Countries: A Case Study of Pune City, India”. *Journal of the Eastern Asia Society for Transportation Studies* Volume 13 Pages 120-131
16. Majumdar, B.B., and Mitra, S. (2019). A study on route choice preferences for commuter and non-commuter bicyclists: A case study of Kharagpur and Asansol, India. *Transportation* Volume 46, Issue 5, pp 1839–1865
17. Majumdar, B.B., and Mitra, S. (2018). Analysis of bicycle route-related improvement strategies for two Indian cities using a Stated Preference Survey. *Transport Policy* 63, pp. 176-188.
18. Majumdar, B.B., and Mitra, S. (2017). Development of Level of Service (LOS) criteria for evaluation of Bicycle Suitability: A case study of Kharagpur, India. *Journal of Urban Planning and Development*. American Society of Civil Engineering. (accepted, in press) (DOI: 10.1061/(ASCE)UP.1943-5444.0000432)
19. Majumdar, B.B. and Mitra, S. (2017) “Valuing factors influencing bicycle route choice using Stated Preference survey” *Journal of Urban Planning and Development*. American Society of Civil Engineering. DOI: 10.1061/(ASCE)UP.1943-5444.0000380. (04017001: 1-11).
20. Majumdar, B.B., and Mitra, S. (2015) “Analysis of factors influencing bicycling in small sized cities: A case study of Kharagpur, India” *Case studies on Transport Policy* 3(3). pp. 331-346. DOI:10.1016/j.cstp.2014.09.002.
21. Majumdar, B.B., Mitra, S. and Pareekh, P (2015) “Methodological Framework to obtain key factors influencing choice of bicycle as a mode”, *Transportation Research Record: Journal of the Transportation Research Board*, No. 2512 pp. 110-121. DOI: 10.3141/2512-13.

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## REVIEWER

- Journal of Intelligent Transportation and Urban Planning (ITUP), Bowen Publishing Group
- Case studies on Transport Policy, Elsevier
- The Open Transportation Journal , Bentham Publishing Group
- Sub-reviewer: 2nd and 3rd Conference of Transportation Research Group of India

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## MEMBERSHIP of PROFESSIONAL SOCIETIES

- Student Member of American Society of Civil Engineers (ASCE) Member ID: 10894071
- Student Member of World Conference of Transport Research Society (WCTRS)

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## ACADEMIC ACHIEVEMENTS

- National Merit Scholarship (GOI) holder on the basis of Higher Secondary examination (2006)
- All India Rank 364 in Civil Engineering, with a percentile of 98.32, GATE (2010)

- Awarded best paper award in the 4th National Civil Engineering Students Symposium in IIT Bombay (2012)
  - Awarded international travel grant to attend TRB and WCTRS conference in USA (2014) and China (2016) from Ministry of Human Resources and Development (MHRD), Government of India.
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#### **REFERENCE**

- Professor Sudeshna Mitra, Department of Civil Engineering, IIT Kharagpur ([sudeshna@civil.iitkgp.ernet.in](mailto:sudeshna@civil.iitkgp.ernet.in) )
- Professor Bhargab Maitra, Department of Civil Engineering, IIT Kharagpur ([bhargab@civil.iitkgp.ernet.in](mailto:bhargab@civil.iitkgp.ernet.in) )
- Professor M. A. Reddy, Department of Civil Engineering, IIT Kharagpur ([manreddy@iitkgp.ac.in](mailto:manreddy@iitkgp.ac.in) )