

Dr. Harsha M M	
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### Education

S. No	Degree	Year	Institute	Specialization
1	BE	2015	Malnad College of Engg, Hassan	Civil Engineering
2	M.Tech	2017	BMS College of Engg, Bangalore	Transportation Engineering and Management
3	Ph. D	2021	NITK, Surathkal	Civil Engineering

### Professional Experience

	Date (from-to)	Designation	Organization
1	18/10/2021 to Till date	Assistant Professor	Siddaganga Institute of Technology, Tumkur

### Positions Held

	Responsibility	Role
01	Survey Laboratory	In-charge
02	Student training, aptitude related analytical skills (ARAS), soft skills., etc.	Coordinator

03	Departmental Project Evaluation Committee (DPEC)	Coordinator
04	Extensive Survey Project	Coordinator
05	Test Coordinator (UG and PG)	Coordinator

#### Affiliations of Professional organizations

NIL

#### Awards and Honors

NIL

#### Courses Taught

##### Undergraduate Courses

- Geomatics
- Railways, Airport & Harbour Engineering
- Urban Transportation & Planning
- Traffic Engineering

##### Postgraduate Courses

- Statistical Techniques for Transportation Engineering
- Transportation Planning
- Applied Statistics for Transportation Engineering
- Traffic Engineering and Geometric design
- Intelligent Transport Systems
- Introduction to AI and its Applications

#### Research Guidance

#### Research Areas

- Public transportation, Intelligent Transportation System (ITS), Urban Transit Management, Transport Data Analytics and Visualization, Artificial Intelligence and Machine Learning, Transportation Planning, Traffic Emission and Air Pollution.

#### Sponsored Projects

NIL

#### Publications

##### Journals

- Harsha M. M. and Raviraj H. Mulangi. (2021) "Impact of Side Friction on Travel Time Reliability of Urban Public Transit." International Journal of Civil Engineering, 1-17.

- Harsha M. M. and Raviraj H. Mulangi. (2022) "Probability Distributions Analysis of Travel Time Variability for the Public Transit System". International Journal of Transportation Science and Technology.
- Harsha M. M. Raviraj H. Mulangi. and Vrunda Kulkarni. (2022) "Impact assessment of route diversion due to roadworks on traffic congestion using AVL data of public transit." Journal of Geovisualization and Spatial Analysis.
- Shivaraj Halyal, Raviraj H. Mulangi, Harsha M. M. (2022) "Forecasting public transit passenger demand: With neural networks using APC data." Case Studies on Transport Policy.
- Shivaraj Halyal, Raviraj H. Mulangi, Harsha M. M. (2023) "Short-term passenger demand modelling using automatic fare collection data: a case study of Hubli-Dharwad BRTS." Advances in Transportation Studies.
- Nithin S, Raviraj H. Mulangi, Harsha M. M. (2023) "The Spatiotemporal Patterns of Bus Passengers: Visualisation and Evaluation Using Non-Negative Tensor Decomposition." Journal of Geovisualization and Spatial Analysis.
- Harsha M. M. and Raviraj H. Mulangi. (2023) "Application of Public Transit AVL Data for Evaluation of Delay Variability". European Transport \ Trasporti Europei.
- Harsha M. M. and Raviraj H. Mulangi. (2023) "Spatio-temporal analysis of public transit GPS data: application to traffic congestion evaluation". Advances in Transportation Studies an International Journal.
- Nithin S, Raviraj H. Mulangi, Harsha M. M. (2024) "Origin-destination demand prediction of public transit using graph convolutional neural network." Case Studies on Transport Policy.
- Nithin S, Raviraj H. Mulangi, Harsha M. M. (2024) "Deep Learning-Based Public Transit Passenger Flow Prediction Model: Integration of Weather and Temporal Attributes." Public Transport.

## Conference Proceedings

- Harsha M. M., and Raviraj H. Mulangi. (2018) "Public Transit Travel Time Analysis Using GPS Data: A Case Study of Mysore ITS." In 3rd International Conference on Communication and Electronics Systems (ICCES). India.
- Harsha M. M., Raviraj H. Mulangi, and Dinesh Kumar H. D. (2020) "Analysis of Bus Travel Time Variability using Automatic Vehicle Location Data." *Transportation Research Procedia*, 48, 3283-3298.
- Shivaraj Halyal, Raviraj H. Mulangi, Harsha M. M and Himanshu Laddha. (2021) "Study on Operational Characteristics of Hubli- Dharwad Bus Rapid Transit System in Comparison with Heterogeneous Traffic Lane." In *Recent Advancements in Civil Engineering* (pp. 701-712). Springer, Singapore.
- Arathy Lal, Raviraj H. Mulangi and Harsha M. M. (2023) "Delay Variability Analysis at Intersections Using Public Transit GPS data." In *Recent Advances in Transportation Systems Engineering and Management* (pp. 613-627). Springer, Singapore.
- Ayana H, Raviraj H. Mulangi and Harsha M. M. (2023) "Analysis of Bus Stop Delay Variability using Public Transit GPS data." In *Recent Advances in Transportation Systems Engineering and Management* (pp. 301-315). Springer, Singapore.
- Shivaraj Halyal, Raviraj H. Mulangi and Harsha M. M. (2023) "Visualisation of Transit Passenger's Mobility from AFC Data: Case Study of Hubli-Dharwad BRTS." In *Recent Advances in Transportation Systems Engineering and Management* (pp. 431-447). Springer, Singapore.
- Harsha M. M & Siddarth, N. H. (2023). Study on Platoon Dispersion at Signalized Intersection in Heterogeneous Traffic Condition. In *International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges* (pp. 1-18). Singapore: Springer Nature Singapore.

## Book Chapters

- NIL

## Books

- NIL

## Editorial

- NIL

#### Editor/ Reviewer of Journal

- Reviewer, International journal of ITS research, Springer
- Reviewer, Journal of institution of engineers series A, Springer
- Reviewer, Public transport, Springer

#### Patents

- NIL

#### Invited Lectures, talks and workshops

- Guest Lecture on Statistics at Sree Siddaganga College of Pharmacy, Tumkur
- Expert Lecture on "Intelligent Transportation System (ITS) for Sustainable Public Transit System: Journey and Future Challenges" in the workshop entitled, "Transportation System Design", held from 20-24 November 2023, Department of Civil Engineering, NITK Surathkal