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Aathira K. Das

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RESEARCH AREA

My research spans the areas of network optimization and traffic flow theory. The study attempts to implement a mathematical optimization approach at network level to identify the type and extent of the optimal segregation needed in the mixed-traffic network depending on the network structure and characteristics, types of vehicle classes present, and the interaction between the vehicle classes. The application of traffic flow theories in the vehicle segregation is explored to represent the real-world traffic in order to examine the critical traffic flow features of the transport system and their relationship in mixed traffic conditions.

EDUCATION

2016-Present

PH.D. (TRANSPORTATION ENGINEERING)

+ IIT Madras
+ 8.36/10 (to date)

2014-2016

M.TECH. (TRANSPORTATION ENGINEERING & PLANNING)

+ SVNIT Surat
+ 91%

2009-2013

B.TECH. (CIVIL ENGINEERING)

+ Mahatma Gandhi University, Kerala
+ 73%

2009

CLASS XII

+ Arya Central School, Trivandrum, Kerala
+ 86.8%

COURSES CREDITED

TRAFFIC ENGINEERING AND TRANSPORT PLANNING

+ Urban Transportation Planning
+ Traffic Engg. & Management
+ Geometric Design of Highway
+ Analytical Tech. in Transportation Engg
+ Transportation Systems Analysis
+ Operations Research
+ Traffic Flow Theory
+ Transportation Network Analysis
+ Simulation Modelling and Analysis

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WORK EXPERIENCE

+ Teaching Assistant for traffic flow theory and Advanced Traffic Flow Theory
+ Volunteer for AICTE Short Term Training Programme on modelling and control of traffic under mixed conditions
+ Project: Black spot study in 10 district of Tamil Nadu state, December 2016

TECHNICAL SKILLS

SOFTWARE RELATED TO TRANSPORTATION ENGINEERING

+ **VISSIM**: Traffic Simulation Software
+ **MATLAB** and **R**: Statistical computing
+ **GAMS:** Mathematical optimization

FIELD EXPERIENCE

+ All traffic surveys and lab experiments related to Transportation Engineering

PIBLICATIONS

1. Das, A.K. and Rama Chilukuri, B., 2020. Link Cost Function and Link Capacity for Mixed Traffic Networks. *Transportation Research Record*, p.0361198120926454

2. Das AK, Chilukuri BR. An Integer Programming Formulation for Optimal Mode-specific Route Assignment. Recent Advances in Traffic Engineering: Select Proceedings of RATE 2018. Springer; 2020.2. DOI: 10.1007/978-981-15-3742-4

3. Das, A.K. and Chilukuri, B.R., 2019, January. A Network Planning Approach for Truck Restriction in Heterogeneous Traffic. In *2019 11th International Conference on Communication Systems & Networks (COMSNETS)* (pp. 783-788). IEEE