Abdhul Khadhir Seyed Hydroos

Research Scholar, Department of Civil Engineering, IIT Madras, Chennai, India.

PhD Candidate, School of Civil and Environmental Engineering, QUT, Brisbane, Australia.

Contact: abdhu02@gmail.com, +91 7293292664, +61 475637111

Objective and Research interests

Long term career objectives include the pursuit of research in the field of Traffic and Transportation Engineering and teaching in an academic environment.

Areas of interest include Traffic control, operation and management, Traffic flow theory, traffic flow modelling, Intelligent Transportation Systems and Road safety.

Academic profile

Joint PhD   Queensland university of Technology   Jul 2016- Continuing
Brisbane, Australia

Pursing Joint PhD in Transportation Engineering with research focus on Traffic Control and Operations.

M.Tech + PhD   Indian Institute of Technology Madras   Jul 2016- Continuing
Chennai, Tamil Nadu

Pursing Dual degree - Master of Technology and PhD in Transportation Engineering with research focus on Traffic Operations and Management. Current **CGPA : 9.43**

B. Tech   National Institute of Technology Calicut   Jul 2011 - May 2015
Kozhikode, Kerala

Completed Bachelor of Technology in Civil Engineering with a **CGPA of 7.29**

Research Projects

M.Tech + PhD   Jul 2016- Continuing

Development of an Optimal Signal Control Strategy for Heterogeneous Less Lane-Disciplined Traffic Conditions
Guide: Prof. Lelitha Devi, Professor, Department of Civil Engineering, IIT Madras
Co-Guide: Dr. Ashish Bhaskar, Associate Professor, School of Civil and Environmental Engineering, QUT Brisbane, Australia

Bachelor of Technology   Jul 2011 - May 2015

Development of Crash Prediction Models for Urban Mid-Block Sections
Guide: Dr. Harikrishna Madhavan, Assistant Professor, Department of Civil Engineering, NIT Calicut.

Professional Experience

Queensland university of Technology, Australia   July 2019 - Continuing
Sessional Academic in Transportation Engineering
Assisted in course: Traffic and Transportation Engineering

Indian Institute of Technology Madras   July 2016 - Continuing
Teaching Assistant in Transportation Engineering
Assisted in courses: Traffic Flow Theory, Traffic Engineering Management and Intelligent Transportation Systems.

Consultancy Projects Involved

Larson & Toubro Technology Services, India   Mar 2017 - Mar 2019
Enhanced Traffic Mobility using Signal Improvements, Chennai.

Software Skills

Transportation Softwares: PTV VISSIM, AIMSUN¡ SIDRA Intersection, Transyt, Ken-Pave, RHEA.
Programming Softwares: Python, MATLAB, R Programming.
Microsoft Office Suite, LaTeX.

Publications

1. **Khadhir, A.**, B.A. Kumar, L. Vanajakshi. (2020). Analysis of GPS Based Bus travel Time Data and its use for APTS Applications, Journal of Intelligent Transportation Systems, 25(1), 58-76, https://doi.org/10.1080/15472450.2020.1754818.

2. **Khadhir, A.**, L. Vanajakshi, A. Bhaskar. (2020). A Microsimulation-based stochastic optimization approach for optimal traffic signal design, Transportation in Developing Economies, 6(19), https://doi.org/10.1007/s40890-020-00108-x.

3. Sharma, S., M. Himabindu, **A. Khadhir**, S.S. Arkatkar, L. Vanajakshi. (2020). Analysis and Use of Wi-Fi data for Signal State Identification, Transportation Research Procedia, 48, 1008-1021, https://doi.org/10.1016/j.trpro.2020.08.129.

4. **Khadhir, A.**, M. Himabindu, S. Sukanya, L. Vanajakshi and B. R. Chilukuri. A Comparative Study of Delay Estimation Methods at Signalized Intersections. *Conference on Recent Advances in Traffic Engineering (RATE 2018)*, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, India, 11-12 August 2018.

5. Raj, A.C.P., **A. Khadhir**, K. Arjun, K.L., Johny, C. Prashant and M. Harikrishna. Crash Prediction Models for Urban Mid-blocks Using Regression Analysis. *National Conference on Technological Innovations for Sustainable Infrastructure (TISI 2015)*, National Institute of Technology Calicut (NITC), Kozhikode, India, 13-14 March 2015.

Academic Achievements

1. Offered a merit based QUT International HDR Tuition Fee Sponsorship and Civil Engineering and Built Environment (CEBE) - QUT scholarship for pursuing Doctor of Philosophy at QUT

2. Recommended by Indian institute of Technology Madras as the first QUT-IITM Joint Degree Research Scholar to pursue a Doctor of Philosophy jointly at QUT Brisbane and IIT Madras

3. Offered admission to Doctor of Philosophy program while pursuing Master of Technology, for exemplary academic performance during the first year of masters program (CGPA of 9.52) at Indian Institute of Technology Madras

4. Cleared National level All India Engineering Entrance Examination (AIEEE-2011) and got admission for Bachelor of technology degree in Civil Engineering at the National Institute of Technology Calicut - an institute of National importance as per Indian parliament's National Institute of Technology Act 2007

5. Cleared Graduate Aptitude Test in engineering (GATE - 2016) and got admission for Master of Technology in Transportation Engineering at Indian Institute of Technology Madras - India's top ranked engineering institute as per National Institute Ranking Framework (NIRF) rankings 2018.

6. Offered admission to Doctor of Philosophy program while pursuing Master of Technology, for exemplary academic performance during the first year of masters program at Indian Institute of Technology Madras

7. Merit-based monthly scholarship from Ministry of Human Resource Development, Govt. of India, July 2016 - ongoing

Professional Activities

1. **A**warded 'Associate Fellow of the higher Engineering Academy (AFHEA)', by the Higher Engineering Academy, Advance HE, UK.

2. **S**enior Executive, Organizing Committee, National Conference on Technological Innovations for Sustainable Infrastructure TISI '15, National Institute of Technology, Calicut

3. **C**ivil Engineering Technical Events Manager, Civil Engineering, Annual Technical Fest TATHVA'13, National Institute of Technology, Calicut

Workshops Attended

1. 'Workshop on Smart Mobility: Indian Needs Meet International Aspirations' (20th April, 2018.

2. 'Workshop on Big Data Analysis For Transportation Engineering Systems' (5th - 6th Dec., 2016.

3. TEQIP-2 Sponsored National Workshop on Water, Air and Soil: Sampling and Analysis (WASSA-2014), NIT Calicut, March, 2014.

4. TEQIP-2 Sponsored Training Program on Groundwater Flow and Contaminant Transport Modeling (GFCTM-2013), NIT Calicut, December, 2013.

Abdhul Khadhir Seyed Hydroos

List of Courses Studied- Transportation and Maths related only

Undergraduate Level

Transportation Engineering - I
Transportation engineering - II
Traffic Engineering
Transportation planning
Traffic Flow Modelling
Pavement Design
Mathematics - I
Mathematics - II
Mathematics - III
Mathematics - IV

M.Tech and PhD

Traffic Engineering and Management
Advanced Traffic Flow Theory
Intelligent Transportation Systems
Transportation Engineering Design Studio
Urban Transportation Planning
Geometric Design of Highways
Urban Transport and Environment
Analytical Techniques in Transportation Engineering
Transportation System analysis
Transportation Network Analysis
Pavement Analysis and Design
Pavement Materials
Pavement Construction technology
Pavement Management Systems
Pavement Materials and Evaluation Lab
Probability and Statistics Optimization Methods in Engineering Design

Abdhul Khadhir Seyed Hydroos