Transportation Planning in the Context of Autonomous Mobility

Overview

Technology is bringing out revolutions in society, the economy, and the way of life. Emerging or disruptive technologies, in form of connected and automated vehicles, smartphones, increased computation power, and big data ("the Internet of things"), are fundamentally changing access to information and services. Incorporating emerging technologies in the transport sector in the form of connected and autonomous vehicles (CAVs), shared mobility and electric vehicles have the potential to provide efficient, convenient and sustainable solutions to this increasing trend of private mode share and limited public transport coverage.

In this context, this course seeks to provide an overview of emerging technologies in transportation in North America focusing mainly on: (i) Autonomous and semi autonomous vehicles and their driving capabilities, (ii) New technology enabled models of taxi services and public transit, (iii) Technology intrusions in urban transport, freight and urban goods movement trajectory paths; (iv) New forms of technology enabled shared use mobility; and (v) Advances in alternative fuel technologies and impact on infrastructure. tional, national, state and metropolitan levels. The course introduces participants to key terms, concepts and issues associated with such technological innovations like CAVs, autonomous transit and provides a comprehensive concept based on the expected policy implications on the integration of emerging technologies with the major transportation modes. The course will discuss available approaches to model vehicle ownership, adoption and prioritization of transport modes with autonomous technology toolkit on board including a concise description of the state of the art mathematical models of adoption of such transport modes, both at consumer and organization level. During the course, participants will have the opportunity to use open source software and work on international case studies.

Modules	**Transportation Planning in the Context of Autonomous Mobility: June 22 to 26, 2020.** **Number of participants for the course will be limited to thirty.**
You Should Attend If...	・ You are a transport engineer, urban planner, policy maker or civil engineer interested in planning and management of transportation systems ・ You are an administrator or entrepreneur interested to learn about planning and management of transportation systems ・ You are a student or faculty from an academic institution pursuing research related to transportation systems
Fees	The participation fees for taking the course is as follows: **Participants from abroad : US $200** **Industry : Rs. 10,000** **Academic Institutions, Govt. Organisations, Public Sector undertakings etc. : Rs. 5,000** **Students, Research Scholars: Rs. 1,500** The above fee includes all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hour free internet facility. The participants can be provided accommodation on a first-come, first serve basis, on payment basis, subject to availability.

The Faculty

Dr. Sabya Mishra is an Associate Professor in the Department of Civil Engineering at the University of Memphis, USA. Before joining University of Memphis, he worked as a Research Assistant Professor at the National Center for Smart Growth Research and Education, University of Maryland College Park. He is involved with a number of national and state transportation projects in the US from Federal Highway Administration, U.S. Department of Transportation, Maryland State Highway Administration, Maryland Department of Transportation, and Michigan Department of Transportation. His areas of expertise include Travel Demand Modeling, Transportation Planning and Policy, Econometric Modeling, Transportation Economics and Finance.

Prof. Tom V. Mathew is a Professor in Civil Engineering at Indian Institute of Technology Palakkad. He is actively involved in teaching, academic research and development sponsored by the government and industry. He has published extensively in reputed international journals. His research interests include traffic flow modeling and simulation, traffic signal control, transportation network design, intelligent transportation systems, and traffic safety.

Dr. B. K. Bhavathrathan is an Assistant Professor at Indian Institute of Technology Palakkad. Before joining IIT Palakkad as Assistant Professor in Civil Engineering, Dr. B. K. Bhavathrathan served as a Postdoctoral Associate in the Singapore-MIT Alliance for Research and Technology. His research interests are in Transportation Systems, Road Networks, and Traffic Safety.

Course Coordinators

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More info will be made available at:
https://iitpkd.ac.in/