

Intelligent Systems and Vehicular Technology

The purpose of this special session is to bring together engineers, researchers and practitioners interested in the advances and applications in the field of Vehicle Technology and Intelligent Transport Systems. This session focuses on innovative applications, tools and platforms in all technology areas such as signal processing, wireless communications, informatics and electronics, related to different kinds of vehicles, including cars, off-road vehicles, trains, ships, underwater vehicles, or flying machines, and the intelligent transportation systems that connect and manage large numbers of vehicles, not only in the context of smart cities but in many other application domains. Papers describing advanced prototypes, systems, tools and techniques and general survey papers indicating future directions are also encouraged. Papers describing original work are invited in any of the areas listed below.

AREA 1: INTELLIGENT VEHICLE TECHNOLOGIES

- Driver Behavior Analysis
- Off the Road Vehicles
- Traffic and Vehicle Data Collection and Processing
- Navigation Systems
- Autonomous Vehicles and Automated Driving
- Vision and Image Processing
- Vehicle Environment Perception
- Pattern Recognition for Vehicles
- Cognitive and Context-aware Intelligence
- Automotive Control and Mechatronics

AREA 2: INTELLIGENT TRANSPORT SYSTEMS AND INFRASTRUCTURE

- Big Data Analytics for Intelligent Transportation
- Public Transportation Management
- Parking Management and Electronic Parking
- Intelligent Infrastructure and Guidance Systems
- Traffic Theory, Modeling, and Simulation
- Air, Road, and Rail Traffic Management
- Ports and Vessel Traffic Management
- Road Safety and Transport Security
- Real-time Incident Detection
- Information Systems and Technologies
- Wireless Sensor Networks
- Automatic Tolls
- Geographic Information Systems
- Urban Mobility and Multimodal Transportation
- Congestion Management and Avoidance

AREA 3: CONNECTED VEHICLES

- Cooperative Driving and Traffic Management
- Connected Services
- Remote Diagnosis
- Vehicle Telematics

- Vehicular Cloud Computing
- Mobility and the Internet of Vehicles
- Big Data and Vehicle Analytics
- V2V, V2I, V2X
- Vehicular Networks
- Security and Safety
- Cognitive Radio
- Communication Protocols

AREA 4: SUSTAINABLE TRANSPORT

- City Mobility and Ecodriving
- Alternative Fuels
- Transport for People with Disabilities
- Electric Vehicles
- Fuel Cell Vehicles
- Hybrid EVs
- Smart Grid and V2G
- Systems Modeling and Simulation
- Engine-Efficiency and Emissions Control
- Power Management

AREA 5: DATA ANALYTICS

- Big Data & Vehicle Analytics
- Traffic management Reporting Systems
- Decision Support Systems
- Visualisation Approaches
- Fleet telematics
- Analytics for Intelligent Transportation
- Reporting Tools
- Analytics and optimization
- User and usage-level Feedback
- Vehicle Information Systems
- Interaction Design for Analytics

TPC Members

Dr. Narayan B. Mandeyam, Dept. of Electrical and Computer Engineering, Rutgers University, NJ

Dr. Ekram Hossain, Dept. of Electrical and Computers, University of Manitoba, Canada

Dr. Ian F. Akildiz, School of Electrical and Computer, Georgia Institute of Technology, USA

Dr. John Cosmas, Dept. of Electronic and Computer Engineering, Brunel University, UK

Dr. Stephen Hanly, Electronic Engg. Department, Macquarie University Australia

Dr. Ramjee Prasad, Deptt. Of Electronic Systems Aalborg University, Denmark

Dr. Andreas Kessler, Telematics Multimedia Comm. Computer Science, , Karlsted, Sweden

Dr. Nimala Shenoy, Deptt of Networking Security and Systems Adm., Rochester, NY

Dr. David B. Johnson, Deptt. Of Computer Science, Rice Univ., Hoeyton, TX, USA

Dr. D. Simon, Electrical and Computer Engg. Department, Cleveland, Ohio, USA

Dr. R. Boutaba, Cheritan School of Computer Sc., University of Waterloo, Canada Dr.

Dr. O.P.Sahu, Professor, NIT, Kurukshetra

Dr. Vikas Mittal, Professor, NIT, Kurukshetra

Dr. Anil Vohra, Professor, KUK

Dr. Ghosh, Debashis, Professor ,ECE, Dept., IIT Roorkee

Prof. Fazal A. Talukdar, Professor. NIT Silchar

Dr. Ajay Somkuwar, Professor, NIT Bhopal

Prof. Dr. Harpreet Singh, Department of Electric and Computer Engg., Wayne State University