
W6: Networked Vehicles for Intelligent Transportation and Smart Grids (NetV)

Safety, mobility and environment challenges call for a new round of revolution on modern transportation. Thanks to the rapid advances in wireless communication technologies, in the future, vehicles can quickly and reliably exchange information and thus connected to each other and to infrastructure, so vehicles, users and transportation system operators can make smart and green decisions to enhance safety, reduce travel delay and congestion, and save energy. Furthermore, networking solutions can be applied to well address the range and fueling/charging problems, providing a much-needed boost to the rollout of electric vehicles (EVs), a key for future clean and green transportation.

At the same time, utilities around the globe are racing to make their power grids more intelligent by adopting ICT technologies, and networked EVs and charging stations can further provide demand response services to power grids. The nexus of the Internet, vehicles (including self-driving ones), fueling/charging stations, and power grids constitutes a perfect storm of opportunities for future Intelligent Transportation Systems (ITS) and Smart Grids (SG). The new paradigm of networked vehicles will not only revolutionize how things and people are transported, but also likely how information and energy are exchanged and delivered.

Many relevant industry standards and consortia are being created to prepare for the coming new paradigm of networked vehicles. NetV 2017 is to bring together the latest innovations and advances around the world on the modeling, design, implementation, and evaluation of networked vehicles architecture, protocols, control, applications and services.

General Chair:

Xuemin (Sherman) Shen, University of Waterloo, Canada

TPC Chairs:

Phone Lin, National Taiwan University, Taiwan

Lin Cai, University of Victoria, Canada

Lian Zhao, Ryerson University, Canada

Kuang-Hao Liu, National Cheng Kung University, Taiwan

Shun-Ren Yang, National Tsing Hua University, Taiwan

Program

Sunday, 24 Sept 2017 9:00-10:30 Carmichael

NetV Performance

1 A Decentralized Load Balancing Approach for Neighbouring Charging Stations via EV Fleets

Mushu Li, Lian Zhao, Ryerson University

2 Path Loss Measurement And Modeling For Low-Altitude UAV Access Channels

Kun Wang, Ruonan Zhang, Northwestern Polytechnical University; Liang Wu, Huawei Technologies Ltd.; Zhimeng Zhong, Huawei Technologies Co., Ltd.; Lin He, Jiawei Liu, Xiaoyan Pang, Northwestern Polytechnical University

3 Performance Analysis of Connectivity Considering User Behavior in V2V and V2I Communication Systems

Bin Pan, Hao Wu, Beijing Jiaotong University

4 Performance Analysis of High Speed Railways Communications Inside a Tunnel Using LTE-R

Kuldeep S. Gill, Paulo Victor R. Ferreira, Alexander Wyglinski, Worcester Polytechnic Institute

Sunday, 24 Sept 2017 11:00-12:00 Carmichael

NetV Control

1 Coverage Control Of Wheeled Mobile Robots For Unknown Moving Targets Interception

Zhi-Hong Guan, Kai Luo, Bin Hu, Huazhong University of Science and Technology; Xuemin (Sherman) Shen, University of Waterloo

2 Loop-Free Enhanced Intersection-Based Perimeter Geo-Routing With Carry-And-Forward For Urban Vanets

Mehdi Tavakoli Garrosi, Leibniz Universität Hannover; Xi Xiang, Leibniz Universitaet Hannover; Mohsen Noroozi, Leibniz Universität Hannover

3 Remote Estimation Over Control Area Networks

Aditya Mahajan, McGill University

4 Incentive for Distributed Optimization in Multi-User Network: A Study of Two Scenarios

Jie Gao, Mushu Li, Peter He, Lian Zhao, Ryerson University

Sunday, 24 Sept 2017 14:00-15:30 Carmichael

Keynote

1 Resource Allocation, Analysis and Machine Learning in Vehicular Networks

Zhu Han, University of Houston, USA

Sunday, 24 Sept 2017 16:00-17:20 Carmichael

NetV Functionality

1 A Study on Networking Functionalities and Challenges for Machine-to-Machine Mobile Networks

Yeh-Cheng Lin, Chia-Peng Lee, Phone Lin, National Taiwan University

2 A TD-LTE-A Based Efficient Radio Access Scheme for Real-time Data Transmission over Relay Unmanned Aerial Vehicle Networks

Yuki Takahashi, Yuichi Kawamoto, Hiroki Nishiyama, Nei Kato, Tohoku University; Fumie Ono, Ryu Miura, National Institute of Information and Communications Technology

3 Dynamic Charging Scheduling for EV Parking Lots with Renewable Energy

Yongmin Zhang, Lin Cai, University of Victoria

Sunday, 24 Sept 2017 17:20-17:30 Carmichael

Announcement of Best Paper Award
