



W8: Vehicular Information Services for the Internet of Things (VISIT 2019)

Sunday 22 September 2019 • 09:00 – 12:30 • Kealohilani Tower Kaimuki 3 (2nd floor)

The Internet of Things (IoT) has recently gained great attention from both academia and industry. Among the key enablers of IoT, smart vehicles have been promising solutions for providing on-road communication and ubiquitous information services. The real value of vehicular resources is much realized when translated into information services that put these resources into action. Expanding the smart vehicle-based services/applications beyond the intelligent transportation services requires research and development efforts to explore new service scopes, create innovative system architectures, and design enabling technologies. Enabling pervasive and diversified vehicular service provisioning in the IoT era entails synergizing several related technologies such as distributed cloud and fog computing, networking infrastructures, crowdsourcing, public sensing, information-centric networking, privacy and security techniques.

This workshop is designed to highlight the ongoing efforts towards vehicular service provisioning and related technology blend. The workshop also addresses issues that arise when dealing with smart vehicles such as resource and service discovery, data communication and delivery, quality of information assessment, resource recruitment, and incentive modelling.

General Chairs

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Shadi Khalifa, Queen's University

Ayman Radwan, Instituto de Telecomunicações-Aveiro

09:00 Keynote—Vehicular Information Services: Challenges and Opportunities
David Michelson, The University of British Columbia

09:40 Session I

A Framework for Adaptive Resolution Geo-Referencing in Intelligent Vehicular Services

Amr El-Wakeel, Queen's University; Aboelmagd Noureldin, Queen's University; Nizar Zorba, Qatar University; Hossam S. Hassanein, Queen's University

Super-Resolution of Low-Quality Images Based on Compressed Sensing and Sequence Information

Ruofei Zhou, Harbin Institute of Technology; Gang Wang, Communication Research Center, Harbin Institute of Technology; Donglai Zhao, Harbin Institute of Technology; Yikun Zou, Communication Research Center, Harbin Institute of Technology; Tong Zhang, Harbin Institute of Technology

10:30 Refreshments break

11:00 Keynote—Intelligence in Wireless Systems: Perspectives and Challenges
Haris Gačanin, Nokia Bell Labs

11:40 Session II

Coded Computing for Distributed Machine Learning in Wireless Edge Network

Sagar Dhakal, Saurav Prakash, Intel Labs; Yair Yona, Qualcomm Inc.; Shilpa Talwar, Intel Corporation; Nageen Himayat, Intel Labs

An Improved D-S Based Vehicular Multi-sensors' Perceptual Data Fusion for Automated Driving Decision-Making

Peng Wang, Beijing University of Posts and Telecommunications; Xiangming Wen, BUPT; Luhan Wang, Beijing University of Posts and Telecommunications; Zhaoming Lu, Lu Ma, BUPT