

学术报告会

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地点：电院群楼2-410会议室

Impact of Mobility on Vehicular Network Performance and Applications

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Abstract:

In this talk, we present the impact of vehicle mobility on the performance of VANET. In specific, we discuss our recent research results on: how to utilize mobility characteristics of vehicles to derive the achievable asymptotic throughput capacity in VANETs; how to develop the mobility-aware real-time path planning to maximize spatial utility based on mobility differentiation; and how to develop the charging strategies based on mobility of electric vehicles to improve the electricity utility, in order to approach load capacities of charging stations in VANET-enhanced smart grid.

Biography:

Xuemin (Sherman) Shen is a Professor and University Research Chair, and Associate Chair for Graduate Study, Department of Electrical and Computer Engineering, University of Waterloo, Canada. Dr. Shen's research focuses on wireless resource management, wireless network security, wireless body area networks, smart grid and vehicular ad hoc and sensor networks. He is the Editor-in-Chief of IET Communications. He serves as the General Chair for Mobihoc'15, the Technical Program Committee Chair for IEEE GC'16, IEEE Infocom'14, IEEE VTC'10, the Symposia Chair for IEEE ICC'10, the Technical Program Committee Chair for IEEE Globecom'07, the Chair for IEEE Communications Society Technical Committee on Wireless Communications. Dr. Shen is an elected member of IEEE ComSoc BoG, the chair of IEEE ComSoc Distinguish Lecturer selection committee, and a member of IEEE ComSoc Fellow evaluation committee. Dr. Shen received the Excellent Graduate Supervision Award in 2006, and the Premier's Research Excellence Award (PREA) in 2003 from the Province of Ontario, Canada. Dr. Shen is a registered Professional Engineer of Ontario, Canada, an IEEE Fellow, an Engineering Institute of Canada Fellow, a Canadian Academy of Engineering Fellow, a Royal Society of Canada Fellow, and a Distinguished Lecturer of IEEE Vehicular Technology Society and Communications Society.