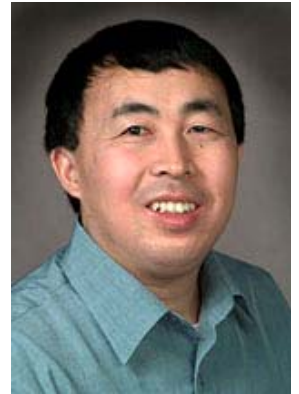# 学术报告会

时间：**2012年9月17日（周一）10:30-11:30**

地点：电院楼群**3-200**会议室

## MAC in Motion: Delivering Differential Services in Drive-Thru Internet

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**Abstract:**

The pervasive adoption of IEEE 802.11 radios in the past decade has made possible for the easy Internet access from a vehicle, notably drive-thru Internet. However, originally designed for the static indoor applications, the performance of IEEE 802.11 in the outdoor vehicular environment is still unclear especially when a large number of fast-moving users transmitting simultaneously. In this talk, we first discuss on the throughput performance of fundamental IEEE 802.11 DCF (distributed coordination function) in the in-motion drive-thru Internet scenario. Due to the high mobility and transient connectivity of vehicles, we show that the DCF MAC should be adaptively adjusted according to the vehicle velocities. We then describe the adaptive mechanisms to achieve smooth video delivery to passengers based on the Interrupted and variable download throughput of vehicles.

**Biography:**

**Xuemin (Sherman) Shen** is a Professor and University Research Chair, 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 and vehicular ad hoc and sensor networks. He is the Editor-in-Chief of IEEE Network, Peer-to-Peer Networking and Application, and IET Communications. He serves/served as the Technical Program Committee Chair for IEEE Infocom'14, IEEE VTC'10, the Symposia Chair for IEEE ICC'10, the Tutorial Chair for IEEE ICC'08, the Technical Program Committee Chair for IEEE Globecom'07, the Chair for IEEE Communications Society Technical Committee on Wireless Communications. He also served as a Founding Area Editor for IEEE Transactions on Wireless Communications; Associate Editor for IEEE Transactions on Vehicular Technology; Computer Networks; and ACM/Wireless Networks, etc., and the Guest Editor for IEEE JSAC, IEEE Wireless Communications, and IEEE Communications Magazine. Dr. Shen received the Excellent Graduate Supervision Award in 2006, and the Outstanding Performance Award in 2004, 2007, and 2010 from the University of Waterloo, 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, and a Distinguished Lecturer of IEEE Vehicular Technology Society and Communications Society.