專 題 演 講

講 者：林甫俊 教授（交通大學資工系）

題目： Current Landscape and Future Development of the IoT/M2M 物聯網的現況及未來發展

摘要：

Currently there are more than four billion devices (cellphones, computers, etc.) connecting people through the network. But it is predicted by 2020 there will be over fifty billion connected devices deployed to serve people.   The technology foundation for connected devices is cited as the Internet of Things (IoT) or Machine to Machine (M2M) communications. Many IoT/M2M services, such as smart home, smart energy, eHealth and connected vehicle, already exist for several years, but they currently involve complex effort in design and development of network access control, authentication, information storage and retrieval, communications protocols, device connection, and application logic. To make it worse, this effort is tied to a specific type of device, network, and application in a vertical market.   Consequently, the same or similar effort needs be repeated again when developing the IoT/M2M services with a different type of device, network, or application.

The call for a common service platform for IoT/M2M applications thus emerges in order to enable M2M service developers focus only on designing application logic and connections to sensors/devices without worrying about lower level networking tasks such as access control, authentication, protocol development as well as information storage and retrieval. Furthermore, in order for such a common service platform to be useful, an international standard is required to facilitate interoperability and build economies of scale. In this talk, we will review the current landscape and future development of the IoT/M2M, and articulate the importance of a common IoT/M2M platform.   We will introduce the effort in international standards for IoT/M2M common service platforms. Finally, we will share the experimental experience of developing several IoT/M2M applications over a common service platform at NCTU.

講者簡歷：

Fuchun Joseph Lin is Professor of Department of Computer Science and Associate Chief Director of Microelectronics and Information Systems Research Center at National Chiao Tung University (NCTU). Before joining NCTU in August 2012, he was Chief Scientist in Applied Research of Telcordia Technologies in U.S.A. focusing on M2M Communications and Next Generation Mobile Networks.   He was with Telcordia Technologies for 20 years and AT&T Bell Labs for 4 years.

He received his PhD in Computer and Information Science from the Ohio State University and MS and BS in Computer Science from National Chiao Tung University. He published more than 50 journal and conference papers and acquired and filed more than 10 patents. He was also active in SDOs such as IEEE, 3GPP and ATIS and contributed to the formation of NGSON, ISB and NGN architecture and specifications.