

WORKSHOP 9

A half-day workshop in IC Design (Analog)

Date : 6 May 2016 (Friday)
Time : 9:30 a.m. – 1:00 p.m.
Venue : Conference Hall 4-5, Phase 2, Hong Kong Science Park, Shatin, Hong Kong

Topic : **Wireless IoT Technologies and Applications**
Speakers : **Mr Andy Wu**, Manager of IC Design (Analog) Technology Division, ASTRI
Mr Bryce Yau, Manager of IC Design (Analog) Technology Division, ASTRI
Dr Rachel Wang, Senior Engineer of IC Design (Analog) Technology Division, ASTRI

Abstract

Internet of Things (IoT) is a network of uniquely identifiable “things” that communicate without human interaction. IoT covers wide range of applications including smart city, smart home, intelligent transportation, intelligent industry/manufacturing, remote healthcare and etc. Machina Research predicted that the interconnected devices can be around 25 billion in year 2020. Connectivity, sensors and processors are a few key technologies to enable IoT applications. In this seminar, we will discuss a few wireless connectivity technologies and their applications, i.e., Cellular IoT (CIoT) in upcoming 3GPP Release 13, Bluetooth Low Energy (BLE) version 4.2 and Near Field communication (NFC). CIoT is a wide area long range communication while BLE is a personal area short range communication, their application scenarios are different and may complement each other. NFC changes the ways people access and use information, it is enabling many applications such as mobile payment, ID authentication and fare collection. In addition to introducing these three wireless connectivity technologies and applications, we will also discuss ASTRI's R&D plan and status in these areas in the seminar.



Source: Qualcomm, Machina Research, 2014

Biographies

Mr Andy Wu is a Manager, IC Design (Analog) Technology Division of ASTRI. Mr Wu received his BSEE (Highest Distinction) and MSEE from the University of Rochester, New York, in 1996 and 1997 respectively. He worked in Motorola and Freescale Semiconductor for 10 years prior to joining ASTRI in 2007. Mr Wu has extensive experience in MCU, low power wireless sensor network and SoC design methodology development.

Mr Bryce Yau is a Manager, IC Design (Analog) Technology Division of ASTRI. Mr Yau received his BEng and MSc from City University of Hong Kong and The Hong Kong University of Science and Technology respectively. He worked in Motorola and Fujitsu Microelectronics for more than 10 years prior to joining ASTRI in 2007. Mr Yau has extensive experience in MCU and NFC development.

Dr Rachel Wang is a Senior Engineer, IC Design (Analog) Technology Division of ASTRI. She received PhD degree from The Hong Kong University of Science and Technology in 2005 and joined ASTRI subsequently. Dr Wang has extensive experience in RF, analog and mixed-signal modules design and transceiver system design. She has worked on a few wireless IC projects such as 4G/LTE RF transceiver, digital TV tuner and sub-GHz SoC.