







# **VENUE CHANGED**

### **One-Day Short Course on**

## "Fundamental and Recent Advances on Millimeter Wave Circuit Design in CMOS"

The short course is designed for circuit designers who need to implement RF/ mm-wave integrated circuit design using CMOS technologies. It will include device modeling, simulation, physical layout and design of monolithic passive elements for wireless and high data rate applications. The course will cover but is not limited to the following:

- Overview of Fundamental and Nanoscaled CMOS Technology
- Equivalent Circuit Models (RLC and Distributed Models)
- Millimeter Waves CMOS Component Design (VCO, PLL, LNA, Mixer, Phase Shifter, Power Amplifier, etc.)
- Antenna Design in Millimeter Waves Applications

#### Speakers:

**Prof. Kai Kang** received the B. Eng degree in electrical engineering from the Northwestern Polytechnical University, China in 2002, and the joint Ph.D. degree from the National University of Singapore, Singapore and Ecole Supérieure D'électricité, France in 2008.

From 2006 to 2010, he was a Senior Research Engineer at the Institute of microelectronics, A\*STAR, Singapore. From 2009 to 2010, he was an adjunct assistant professor at National University of Singapore. From 2010 to 2011, he was a Principle Engineer at Globalfoundries. Since June 2011, he has been with the University of Electronic Science and Technology of China, where he is now a professor and associate dean of the School of Electronic Engineering. His research interests are RF and mm-Wave integrated circuits design and modeling of on-chip devices.

Prof. Kang served as the chapter chair of IEEE Solid State Circuits Society Chengdu Chapter. He was co-recipient of the best paper award in IEEE RFIT 2009. He has authored and co-authored over 80 international referred journal and conference papers.

**Dr. Liang Wu** received the B.S. and M.S. degrees in Materials Science from Fudan University, China, in 2004 and 2007 respectively, and the Ph.D. degree in Electronic and Computer Engineering from the Hong Kong University of Science and Technology in 2012. From March 2013, he joined the Department of Electronic and Computer Engineering at the Hong Kong University of Science and Technology where he is now a research assistant professor and the deputy director of HKUST-Qualcomm Joint Innovation and Research Lab.

His current research interests include CMOS RF / millimeter-wave integrated circuits for wireless transceivers, mixed-signal visible light communication system-on-a-chip (SoC), and visible light indoor positioning systems.

**Prof. Quan Xue** received the B.S., M.S., and Ph.D. degrees in electronic engineering from the University of Electronic Science and Technology of China (UESTC), Chengdu, China, in 1988, 1990, and 1993, respectively. In 1993, he joined the UESTC, as a Lecturer. He became a Professor in 1997. From October 1997 to October 1998, he was a Research Associate and then a Research Fellow with the Chinese University of Hong Kong.

In 1999, he joined the City University of Hong Kong where he is currently a Chair Professor of Microwave Engineering. He also serves the University as the Associate Vice President (Innovation Advancement and China Office) (June 2011-Jan 2015), and is the Director of Information and Communication Technology Cener(ICTC center) (Jun 2005-present), the Deputy Director of CityU Shenzhen Research Institute (June 2011-Jan 2015), the Deputy Director of State Key Lab of Millimeter Waves (Hong Kong) (April 2008-present), and the Director of Applied Electromagnetic Laboratory (September 2009-present).

He has authored or co-authored over 260 internationally referred journal papers and over 120 international conference papers with over 3600 citations by others. His research interests include microwave passive components, active components, antenna, microwave monolithic integrated circuits (MMIC, and radio frequency integrated circuits (RFIC) etc. Professor Xue serves the IEEE as an AdCom member of MTT-S (2011-2013) and the associate Editor of IEEE Transactions on Microwave Theory and Techniques (2010-2013), the associate Editor of IEEE Transactions on Industrial Electronics(2010-present), and the Editor of International Journal of Antennas and Propagation.

- Date : 8 May 2015 (Friday)
- Time : 9:30 am- 5:30 pm
- Venue : Room 6213, 6/F, Academic 3, City University of Hong Kong

\*\*\* Free of Charge, All Are Welcome \*\*\*

#### **Enquiries:**

Dr. Keeson Shum, State Key Laboratory of Millimeter Waves Tel.: (852) 3442-4137 Fax: (852) 3442-0353 e-mail: keeson.shum@cityu.edu.hk