



Department of Electronic and Information Engineering

Seminar

IEEE Distinguished Microwave Lecture

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Microwave Photonics

by

Professor Jianping Yao

University of Ottawa, Ottawa, Canada

Date: 10 February 2015, Tuesday

Time: 2:30 p.m. – 4:30 p.m. (Refreshment starts at 2:15 p.m.)

Venue: Room CD634, Department of Electronic and Information Engineering
The Hong Kong Polytechnic University

ABSTRACT

Microwave photonics is an area that studies the interaction between microwave and optical waves for the generation, distribution, control and processing of microwave signals by means of photonics. There are numerous applications of microwave photonics, such as optically controlled phased array antennas, fiber-fed wireless communication systems (radio over fiber), radar, sensors, and instrumentation. In this talk, an introduction to microwave photonics will be presented, then different topics of microwave photonics will be discussed, including, photonic true time delay beamforming, photonic generation of microwave signals, photonic processing of microwave signals, radio over fiber, and photonic analog-to-digital conversion. Challenges in implementing microwave photonics system and future research directions will also be discussed.

ABOUT THE SPEAKER

Professor Jianping Yao (M'99-SM'01-F'12) is a Professor and University Research Chair in the School of Electrical Engineering and Computer Science, University of Ottawa, Ottawa, Ontario, Canada. Professor Yao received the Ph.D. degree in electrical engineering from the Université de Toulon, Toulon, France, in December 1997. Professor Yao joined the School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore, as an Assistant Professor in 1999. In December 2001, Professor Yao joined the School of Electrical Engineering and Computer Science, University of Ottawa, as an Assistant Professor, where he became an Associate Professor in 2003, and a Full Professor in 2006. Professor Yao was appointed University Research Chair in Microwave Photonics in 2007. Professor Yao is a Topical Editor for Optics Letters and serves on the Editorial Boards of Optics Communications and China Science Bulletin. Professor Yao has authored or co-authored more than 450 research papers, including more than 260 papers in peer-reviewed journals and 180 papers in conference proceedings. Professor Yao is a Fellow of the IEEE, the Optical Society of America, and the Canadian Academy of Engineering.

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