Department of
Mechanical Engineering
The University of Hong Kong

SEMINAR

Title: A 6-18GHz Reconfigurable Quadrature Transceiver with Multi-phase Clock Generation Circuits

Bandwidth Extension Techniques.

Speaker: Prof. Na Yan

Associate Dean

School of Microlectronics

Fudan University

China

Venue: Inno Wing Two, HKU

Date: May 19, 2025 (Monday)

Time: 16:00pm

Abstract：

Agile multi-functional RF systems supporting multiple communication and radar protocols are of greater demand in modern wireless applications. The core of these systems is the transceiver IC that covers an ultra-wide frequency range, provides highly flexible signal bandwidths, and adjusts its power consumption accordingly in different use cases. This broad frequency coverage ensures compatibility with a wide range of communication protocols and standards, enabling seamless connectivity in diverse environments.

Meanwhile, the transceiver IC is desired to provide flexible gain and signal bandwidths and to adjust its power consumption dynamically to accommodate different applications. This is critical for achieving optimal performance in various operation conditions. In this seminar talk, I will present several recently published design techniques from Fudan RFicae group, specifically tailored for wideband transceivers.

Biography:

Na Yan is a full professor and Associate Dean, School of Microelectronics, Fudan University. She is the Chief Scientist of the National IC Innovation Center of China, a recipient of National Science and Technology Innovation Leaders, and a Shanghai Outstanding Academic Leader. She received the B.S. and Ph.D. degrees from Fudan University, Shanghai, China, in 2002 and 2007, respectively. After her studies, she joined the School of Microelectronics, Fudan University. From 2011 to 2012, she was a Visiting Scholar with the University of California at Los Angeles, Los Angeles, CA, USA, where she was involved in millimeter-wave transceiver and RF interconnect transceiver design. She has authored or co-authored over 100 refereed publications, including one chapter in RF mixed-signal circuit design resulting in more than 30 patents. Her research interests include power-efficient mixed-signal circuit design for highly integrated CMOS RF systems.

ALL INTERESTED ARE WELCOME

For further information, please contact Prof. Mingxin Huang