

## SEMINAR ANNOUNCEMENT

### DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Faculty of Engineering

Website: <https://www.eng.nus.edu.sg/ece/>

**Area: Microwave & Radio Frequency**

**Host: Prof Chen Zhi Ning**

**Technical Seminar Organized by  
National University of Singapore (NUS), IEEE Singapore MTT/AP Chapter,  
IEEE Singapore RFID Chapter & IEEE Singapore EMC Chapter**

**The seminar is FREE and NO Pre-Registration is needed.**

<b>TOPIC</b>	:	<b>5G Antenna Solutions for Smartphones Applications</b>
<b>SPEAKER</b>	:	<b>Prof. Chow-Yen-Desmond Sim Distinguished Professor and Head of Dept. of Electrical Engineering, Feng Chia University, Taiwan</b>
<b>DATE</b>	:	<b>29 January 2020, Wednesday</b>
<b>TIME</b>	:	<b>10.30am to 11.30am</b>
<b>VENUE</b>	:	<b>E4-04-07 - E-CUBE 3, Engineering Block E4, Faculty of Engineering, NUS</b>

#### ABSTRACT

As the globe is now preparing to embrace the 5G communication system, its related mobile terminal devices such as smartphone design operating in the Sub-6GHz band (n77/n78/n79) and mmWave band (28GHz/39GHz) are very vital to the 5G user experience. In this talk, I will begin by introducing the recently reported 5G antenna designs with MIMO technology (such as 8x8 MIMO array). Besides presenting the various antenna designs that can cover the entire New Radio (NR) FR1 band n77/n78/n79, the latest antenna design methods to fulfill the 5G mmWave band for FR2 band n257/n258/n260/n261 and placing all 4G LTE/5G FR1+FR2 in a single smartphone will be presented as well. Finally, I will give a brief description on the recent mmWave antenna designs in an actual AiP.

#### BIOGRAPHY



**Prof. Chow-Yen-Desmond Sim** (M'07–SM'13) was born in Singapore in 1971. He received the B.Sc. degree from the Engineering Department, University of Leicester, U.K., in 1998, and the Ph.D. degree from the Radio System Group, Engineering Department, University of Leicester, in 2003. In 2007, he joined the Department of Electrical Engineering, Feng Chia University (FCU), Taichung, Taiwan, and he is now the Distinguished Professor and Head of Department of Electrical Engineering. He has authored or coauthored over 140 SCI papers, and his current research interests include antenna design, VHF/UHF tropospheric propagation, and RFID applications. He is a Fellow of the Institute of Engineering and Technology (FIET), a Senior Member of the IEEE Antennas and Propagation Society, and a Life Member of the IAET. He has served as the Chapter Chair of the IEEE AP-Society, Taipei Chapter (from 01/2016 to 12/2017), and he is the founding Chapter Chair of the IEEE Council of RFID, Taipei Chapter (from 10/2017). He is now serving as the Associate Editor of IEEE AWPL, IEEE Access, IEEE Journal of RFID and (Wiley) International Journal of RF and Microwave Computer-Aided Engineering. Since October 2016, he has been serving as the technical consultant of SAG (Securitag Assembly Group, one of the largest RFID tag manufacturers in Taiwan); he is also serving as the consultant of Avary (the largest PCB manufacturer in mainland China) since August 2018. He was the recipient of the IEEE Antennas and Propagation Society Outstanding Reviewer Award (IEEE Transaction Antennas and Propagation) for six consecutive years between 2014 and 2019. He has also received the Outstanding Associate Editor Award from the IEEE Antennas Wireless and Propagation Letters in July 2018. (Email: [cysim@fcu.edu.tw](mailto:cysim@fcu.edu.tw))

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