

## THE CHINESE UNIVERSITY OF HONG KONG Department of Electronic Engineering

### Seminar

# Challenges of Antenna Systems for 5G communication and Chalmers solutions

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Date: 25 June 2019 (Tuesday)

Time: 2:30 p.m.

Place: Rm 418, Ho Sin Hang Engineering Building, CUHK

### **Abstract**

5G era is approaching and we now see some versions of commercial 5G networks starting to go live at different parts of the world. The 5G communication technology will bring new experience and new challenges including wider bandwidth, higher data rate, greater capacity, higher security, and lower latency. The key enabling 5G technology includes novel multiple access strategies, ultradense networking, all-spectrum access, massive MIMO, full digital beam forming or hybrid beam forming. This talk will present some Chalmers solutions to the above challenges, including gap waveguide technology and capped Bowtie technology.

### **Biography**



Jian Yang (M'02-SM'10) received B.S. degree from the Nanjing University of Science and Technology, Nanjing, China, in 1982, and the M.S. degree from the Nanjing Research Center of Electronic Engineering, Nanjing, China, in 1985, both in electrical engineering, and the Swedish Licentiate and Ph.D. degrees from the Chalmers University of Technology, Gothenburg, Sweden, in 1998 and 2001, respectively. From 1985 to 1996, he was with the Nanjing Research Institute of Electronics Technology, Nanjing, China, as a Senior Engineer. From 1999 to 2005, he was with the Department of Electromagnetics, Chalmers University of Technology as a Research Researcher. During 2005 and 2006, he was with

COMHAT AB as a Senior Engineer. From 2006 to 2010, he was an Assistant Professor at the Department of Signals and Systems, Chalmers University of Technology. From 2010 to 2016, he was an Associate Professor. From 2016, he has been a professor at the Department of Signals and Systems, Chalmers University of Technology. He has published more than 60 journal articles and about 150 peer reviewed conference papers. H-index: 26. His research interests include ultrawideband antennas and UWB feeds for reflector antennas, mmWave antennas, mmWave multilayer phased array antennas, mmWave SWE (sheet waveguide element) antennas, Gap waveguide antennas, UWB radar systems, UWB antennas in near-field sensing applications, hat-fed antennas, reflector antennas, radome design, and computational electromagnetics.