### 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.

TOPIC	:	Automatic Target Recognition (ATR) from Big Data with Intelligence
SPEAKER	:	Prof. Ya-Qiu Jin Fudan University, Shanghai, China
DATE	:	25 November 2019, Monday
TIME	:	10.30am to 12pm
VENUE	:	E4-04-07 (E-Cube 3), Engineering Block E4, Faculty of Engineering, NUS

### **ABSTRACT**

Advances of multi-mode space-borne remote sensing (RS) produces a huge volume of data/image obtained daily by numerous in-orbit observation systems, which exploit from optical to synthetic aperture radar (SAR) sensors. How to automatically retrieve the accurate information has been a key issue for processing RS big data (BD).

Artificial intelligence (AI) has recently achieved great success in a large set of research fields. New neuromorphic computing has greatly inspired the studies of the brain-like algorithms and quickly revolutionized the computer vision field. AI has emerged as a powerful tool for solving very challenging problems which involve the automatic target recognition (ATR).

This presentation will briefly introduce the recent works on BD-AI and ATR in Prof Jin's laboratory.

# **BIOGRAPHY**



**Prof. Ya-Qiu Jin** graduated from Peking University, Beijing, China in 1970, and received the M.S., E.E., and Ph.D. degrees from the Massachusetts Institute of Technology, Cambridge, USA in 1982, 1983 and 1985, respectively, all in Electrical Engineering and Computer Science.

Dr. Jin is currently the **Te-Pin Professor**, and Director of Key Laboratory for Information Science of Electromagnetic Waves (MoE), and Institute of EM Big data and Intelligence Remote Sensing, Fudan University, Shanghai, China. Dr. Jin is the **Academician of CAS** (Chinese Academy of Sciences), and the **Fellow of TWAS** (the Developing Countries Academy of Sciences), **IAA** (International Academy of

Astronautics), and IEEE Life Fellow. He was IEEE GRSS Distinguished Speaker, Associate Editor of IEEE TGRS and Access. He was co-Chair of TPC for IGARSS2011 in Vancouver Canada, and Co-General Chair for IGARSS2016 in Beijing, China. He was the Member of IEEE GRSS AdCom, Chair of IEEE Fellowship Evaluation Committee (GRSS).

## **BIOGRAPHY**

His main research interests include electromagnetic scattering and radiative transfer in complex natural media, microwave satellite-borne remote sensing, as well as theoretical modeling, information retrieval and applications in earth terrain and planetary surfaces, and computational electromagnetics.

He has published more than 780 papers in refereed journals and conference proceedings and 16 books, including Polarimetric Scattering and SAR Information Retrieval (Wiley and IEEE, 2013), Theory and Approach of Information Retrievals from Electromagnetic Scattering and Remote Sensing (Springer, 2005), Electromagnetic Scattering Modelling for Quantitative Remote Sensing (World Scientific, 1994).

He received IEEE GRSS Distinguished Achievement Award (2015), IEEE GRSS Education Award (2010), the China National Science Prize (2011, 1993), the Shanghai Sci/Tech Gong-Cheng Award (2015), the first-grade MoE Science Prizes (1992, 1996 and 2009) among many other prizes.

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