Seminar on

Recent Development on
Highly Efficient Discontinuous Galerkin Time Domain Method

by

Prof Yan Shi

Xidian University, China

Date : 26 June 2017 (Monday)
Time : 11:00 am – 12:00 noon
Venue : Room 15-202, meeting room of State Key Laboratory of Millimeter Waves, 15/F, Lau Ming Wai Academic Building, City University of Hong Kong

Abstract
The complexity in real-life electromagnetic applications requires the development of high efficient methods to solve the time-dependent Maxwell's equations. Discontinuous Galerkin time domain (DGTD) method has attracted increasing attentions due to higher-order solution accuracy and the flexibility in modeling with unstructured meshes. In this presentation, we will discuss three recent developments on the DGTD method. The first part focuses on the weighted Laguerre polynomial based DGTD algorithm with unconditional stability performance. The second concerns the low-storage DGTD algorithm very suitable for GPU or coprocessors. In the third part the DGTD algorithm based on the vector wave equation is discussed, and the combination of the DGTD algorithms based on wave equation and Maxwell's equations is developed. The proposed DGTD method is highly accurate and efficient in 3D electromagnetic problems modeling.

Biography
Yan Shi is a Professor in School of Electrical Engineering and National Key Lab. of antennas and microwave technology at Xidian University. He has authored and co-authored over 100 papers in refereed journals and a book (Notes on catastrophe theory, Beijing: Science Press, 2015). He was awarded more than 10 Chinese invention patents and 1 computer software copyright. He is senior member of IEEE and CIE. He received Program for New Century Excellent Talents in University in 2011, New Scientific and Technological Star of Shaanxi Province in 2013, First Prize of Awards for Scientific Research Results of High Education of Shaanxi Province in 2013, and Second Prize of Awards of Science and Technology awarded in 2015.

***** ALL ARE WELCOME *****

Enquiries:
Professor Chi Hou Chan, State Key Laboratory of Millimeter Waves
Tel.: (852) 3442 9360 Fax: (852) 3442 0353 Email: eechic@cityu.edu.hk