

Seminar on

On Innovation, Simulation, Mode Experiments and Engineering of the Five hundred meters Aperture Spherical radio Telescope (FAST)

by

Academician Baoyan Duan

**Academician of Chinese Academy of Engineering
Full Professor of Electromechanical Engineering, Xidian University, China
President of Xidian University, China from 2002 to 2012**

Date : 29 November 2017 (Wednesday)

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

This keynote speech will give a comprehensive introduction about the development of the Five-hundred-meter Aperture Spherical radio Telescope project (FAST) located in Guizhou Province, south west part of China. Firstly, the novel design of FAST project with three innovations are presented in detail. Secondly, the theory, methodology and numerical simulation of project are described. Thirdly, the scale models with one percent and one tenth of the real 500 meters merit are developed and tremendous amount of experiments were experienced with valuable results. The above research works had paved a solid way to build the practical FAST telescope. And finally, the engineering implementation of FAST are discussed and the rare initial observing results are presented.

Biography

Baoyan Duan

He received the B.S., M.S., and Ph.D. degrees in Mechanical Engineering from Xidian University, Xi'an, China, in 1981, 1984, and 1989 respectively. From 1991 to 1994, he studied as Postdoctoral Fellow at Liverpool University, U.K. He was a Visiting Scientist at Cornell University, Ithaca, NY, in 2000. He is currently a full Professor in the School of Electromechanical Engineering at Xidian University where he founded the research institute on mechatronics about electronic equipment structural design. His current research interests include mechatronics, electromechanical coupling theory and application, and engineering structural optimization. He has published 5 books and authored or coauthored over 200 papers and invited presentations in international conferences and symposia.

He is a Fellow of IET and Chinese Institute of Electronics (CIE), Members of International Association for Computational Mechanics (IACM) and International Society for Structural and Multidisciplinary Optimization (ISSMO). He is Chairman of Electromechanical Engineering Society of China, Chairman of antenna industry alliance of China.

He has received the 2nd prize of national award for science and technology progress of China three times (2004, 2008 and 2013). In 2012, he was issued Hong Kong HLHL prize of science and technology progress. In November, 2016, CCTV (Chinese Central Television station) produced and broadcasted a special video program titled with DUAN Baoyan: Minor discipline and Great Vision (<http://eesd.xidian.edu.cn>).

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

Enquiries:

Professor Kwok Wa Leung, Department of Electronic Engineering

Tel.: (852) 3442 9659 Fax: (852) 3442 0562 Email: ekleung@cityu.edu.hk