

Seminar On

From a Different Perspective: Principles, Practice and Potential of Bistatic Radar

by

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Date : 31 October 2016 (Monday)
Time : 04:00 pm – 05:00 pm
**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

Bistatic radar systems have been studied and built since the earliest days of radar. They have the advantages that the receivers are passive, and hence potentially undetectable. The receiving systems can also be simple and cheap. In spite of those advantages, rather few bistatic radar systems have got past the ‘technology demonstrator’ phase, and it is only now that real bistatic radar systems are being developed and fielded. Also, there is particular current interest in passive bistatic radar (PBR) techniques, using broadcast and communications signals as ‘illuminators of opportunity’. These are now seen as solutions to Air Traffic Management, and will undoubtedly play a part in addressing the spectrum congestion problem.

The lecture presents a review of some of the history, and the properties and current developments in the subject, as well as the prospects for the future.

Biography

Hugh Griffiths holds the THALES/Royal Academy Chair of RF Sensors in the Department of Electronic and Electrical Engineering at University College London, England. From 2006–2008 he was Principal of the Defence Academy of Management and Technology. He received the MA degree in Physics from Oxford University in 1975, then spent three years working in industry, before joining University College London, where he received the PhD degree in 1986 and the DSc(Eng) degree in 2000, and served as Head of Department from 2001 – 2006.

His research interests include radar and sonar systems and signal processing (particularly synthetic aperture radar and bistatic radar). He has published over five hundred papers and technical articles in the fields of radar, antennas and sonar. In 1996 he received the IEEE AESS Fred Nathanson Award (Radar Systems Panel Award), and in 2012 he was awarded the IET A.F. Harvey Prize for his work on bistatic radar. He has also received the Brabazon Premium of the IERE, the Mountbatten and Maxwell Premium Awards of the IEE, and the IEEE Mimno Award. In 1997 he was elected to Fellowship of the Royal Academy of Engineering.

He served as President of the IEEE Aerospace and Electronic Systems Society for 2012/2013, and he is an IEEE AES Distinguished Lecturer. He has been a member of the IEEE AES Radar Systems Panel since 1989, serving as Chair from 2007 – 2009, and chaired the Working Group which revised the IEEE Radar Definitions Standard P686 and reaffirmed the Radar Letter Band Standard. He also served as Deputy Convenor for the EE Panel of the Hong Kong RAE in 2014.

*** ALL ARE WELCOME ***

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