

ISC 3 Antennas for software defined radio

Course Lecturer Prof. Peter Hall

Course Description

- 1 Software defined radio and antenna implications
- 2 Cognitive radio and antenna needs
- 3 Review of antennas for various SDR and CR applications
 - 3.1 Mobile phone handsets
 - 3.2 Public safety applications
 - 3.3 Fixed infrastructure
 - 3.4 Space and military
- 4 Some related research topics
- 5 Conclusions

The course is aimed primarily at people with a background in antennas and/or related technology, who are interested in finding out about the new directions that these new topics are pointing. The audience need not have an expert grasp of any particular antenna topic area, but a general understanding of how antennas work and how system requirements can impact the design of antennas. The course will not be at a deep theoretical level, but will be mainly descriptive, and possibly provocative. Because the topic is still developing, there will be time allocated for general discussion when the presenter will welcome audience reaction.

Biography

Peter Hall is Professor of Communications Engineering, leader of the Antennas and Applied Electromagnetics Laboratory, and Head of the Devices and Systems Research Centre in the Department of Electronic, Electrical and Computer Engineering at The University of Birmingham. After graduating with a PhD in antenna measurements from Sheffield University, he spent 3 years with Marconi Space and Defence Systems, Stanmore working largely on a European Communications satellite project. He then joined The Royal Military College of Science as a Senior Research Scientist, progressing to Reader in Electromagnetics. He joined The University of Birmingham in 1994.

He has researched extensively in the areas of antennas, propagation and antenna measurements. He has published 5 books, over 350 learned papers and taken various patents. These publications have earned many awards, including the 1990 IEE Rayleigh Book Award for the Handbook of Microstrip Antennas.

Professor Hall is a Fellow of the IEE and the IEEE and a past IEEE Distinguished Lecturer. He is a past Chairman of the IEE Antennas and Propagation Professional Group and past coordinator for Premium Awards for IEE Proceedings on Microwave, Antennas and Propagation. He is a member of the IEEE AP-S Fellow Evaluation Committee. He chaired the 1997 IEE ICAP conference, was vice chair of EuCAP 2008 and has been associated with the organisation of many other international conferences. He was Honorary Editor of IEE Proceedings Part H from 1991 to 1995 and currently on the editorial board of Microwave and Optical Technology Letters. He is a past member of the Executive Board of the EC Antenna Network of Excellence.

He recently received the LAPC IET James Roderick James Lifetime Achievement Award.