

SEMINAR:

Timed Arrays

- Speaker:** Prof. Randy L. Haupt
(Colorado School of Mines, USA)
- Date:** 16/09/2013 @ 3:00 PM
- Location:** Room A106 - Polo Scientifico F. Ferrari Povo
- Note:** The seminar will be held in English
- Contact:** Dr. Paolo Rocca (paolo.rocca@disi.unitn.it)



Timed arrays are antenna arrays that must be analyzed in the time domain. Typically, antenna engineers learn how to analyze and design antenna arrays as steady state, narrow band systems. In reality, broadband, adaptive, and reconfigurable, arrays have time domain responses that must be considered during the design. This talk will cover signals and arrays (time representations, signals, bandwidth, impact on arrays), wideband issues (signal dispersion, time delay units and phase shifters, grating lobes), and adaptive arrays (overview of adaptive signal processing for antenna arrays).

• About the Speaker

Randy L. Haupt received a BSEE from the USAF Academy, an MS in Engineering Management from Western New England College, an MSEE from Northeastern University, and a PhD in EE from The University of Michigan. He is Professor and Department Head of EECS at the Colorado School of Mines. Prior to that, he was an RF Staff Consultant at Ball Aerospace & Technologies, Corp., Senior Scientist and Department Head at the Applied Research Laboratory of Penn State, Professor and Department Head of ECE at Utah State, Professor and Chair of EE at the University of Nevada Reno, and Professor of EE at the USAF Academy. He was a project engineer for the OTH-B radar and a research antenna engineer for Rome Air Development Center early in his career. He is co-author of the books *Practical Genetic Algorithms*, 2 ed., John Wiley & Sons, 2004, *Genetic Algorithms in Electromagnetics*, John Wiley & Sons, 2007, and *Introduction to Adaptive Antennas*, SciTech, 2010, as well as author of *Antenna Arrays a Computation Approach*, John Wiley & Sons, 2010. Dr. Haupt was the Federal Engineer of the Year in 1993 and is a Fellow of the IEEE and Applied Computational Electromagnetics Society (ACES). He serves as an Associate Editor for the "Ethically Speaking" column in the IEEE AP-S Magazine.