

Advances in Wireless Communication and Antennas

Overview

Recently, advances of wireless communication technologies such as cellular communication, wireless LAN and other personal devices is remarkable and the communication speed beyond 1000Mbps is made available under mobile communication environments. Moreover, the opportunities to use wireless communication in our daily lives are increasing by rapid diffusion of sophisticated mobile information terminals such as phones and tablets. Government, military and medical sectors are providing the momentum behind majority of research initiatives for the development of communication systems. There are research areas like microwave and millimeter waves, terahertz, novel antennas, RFID, wireless sensor networks, software defined radio which are progressing rapidly time to time.

The exploration of wireless devices in today's world forced the designers of handheld devices to integrate several applications like communication, commerce and GPS into one gadget. This paved way for the researchers to conceive various structures as antennas to cater to multi band operation with large bandwidth at each band and circular polarization. The availability of highly efficient software tools accelerated the process of design and simulation with powerful numerical techniques embedded in them. The course aims at exposing the participants to new trends in the applications of antennas, paradigm changes in the designs that are required to cater to these applications, mechanism of development of various software tools, tricks to master the available tools and methods of evaluation for user satisfaction.

The topics in the module include RF and Microwave Communication. The new vistas opened with terahertz systems will be addressed. The intricacies in the software tools used for the design of communication systems and antennas will be exposed.

Course participants will learn these topics through lectures and hands-on experiments. Also case studies and assignments will be shared to stimulate research motivation of participants.

Module	Antennas for tomorrow : June6 – June16, 2016 Number of participants for the course will be limited to fifty.
You Should Attend If...	<ul style="list-style-type: none">▪ you are an electronics engineer or research scientist interested in designing HF systems, develop tools for design and methods to evaluate .▪ you are a student or faculty from academic institution interested in learning how to do research on HF systems.
Fees	The participation fees for taking the course is as follows: Participants from abroad : US \$200 Industry/ Research Organizations: Rs.8000/- Academic Institutions: Rs. 4000/- For students: Rs. 2000/- The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis.

The Faculty



Prof. John L. Volakis is the Director, Electroscience Laboratory, Ohio State University, Columbus, OH, USA. His research interests include Wireless Communication and Propagation, Antennas and Arrays, RF Materials and Packaging, RF Matching and Tunable Circuits, RFIDs, Medical Sensing, Millimeter Waves & TeraHertz, Computational Electromagnetics, Electromagnetic Compatibility and Interference



Dr. N.V.S.N. Sarma is a Professor of National Institute of Technology, Warangal. His research interests are Numerical Electromagnetics, Antennas, ANNs and Wireless Sensor Networks.

Course Co-ordinator

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