

SEMINAR



Speaker: Prof. Raj Mittra

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Distinguished HiCi Adjunct Professor
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Raj Mittra is a Professor in the Department of Electrical & Computer Science of the University of Central Florida in Orlando, FL., where he is the Director of the Electromagnetic Communication Laboratory. Prior to joining the University of Central Florida, he worked at Penn State as a Professor in the Electrical and Computer Engineering from 1996 through June, 2015. He also worked as a Professor in the Electrical and Computer Engineering at the University of Illinois in Urbana Champaign from 1957 through 1996, when he moved to the Penn State University. Currently, he also holds the position of Hi-Ci Professor at King Abdulaziz University in Saudi Arabia. He is a Life Fellow of the IEEE, a Past-President of AP-S, and he has served as the Editor of the Transactions of the Antennas and Propagation Society. He won the Guggenheim Fellowship Award in 1965, the IEEE Centennial Medal in 1984, and the IEEE Millennium medal in 2000. Other honors include the IEEE/AP-S Distinguished Achievement Award in 2002, the Chen-To Tai Education Award in 2004 and the IEEE Electromagnetics Award in 2006, and the IEEE James H. Mulligan Award in 2011. Dr. Mittra is a Principal Scientist and President of RM Associates, a consulting company founded in 1980, which provides services to industrial and governmental organizations, both in the U.S. and abroad.

Date: Monday, October 26, 2015

Time: 1:00 PM

Venue: Engineering Building, Third floor,
Dean of Engineering Meeting Room

Title

EMC/EMI Effects in EM Systems and Their Mitigation

Abstract

Problems related to EMI/EMC issues arise in many electromagnetic systems, and it is often important to simulate them, to understand the underlying physics and to seek ways to mitigate them. Ubiquitous as the EMI/EMC problems are, it would be presumptuous to cover all possible scenarios in this review talk.

We begin by considering the problem of lightning strike of an aircraft, or the effect of exposing the vehicle to HIRF (High Intensity RF) fields.

Next we look at EMI problems arising in the scenario in which high power transmitters and sensitive communication receivers share the same platform. We present a technique for simulating such problems in a computationally efficient manner.

For the third and last topic in this presentation, we consider the important problem of SAR (Specific Absorption Rate) mitigation from different EM systems, such as mobile phones and MRI machines.

ALL ARE CORDIALLY INVITED