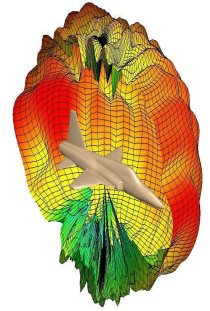
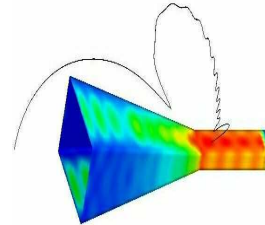
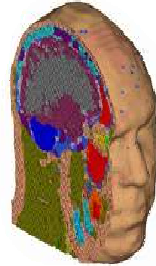
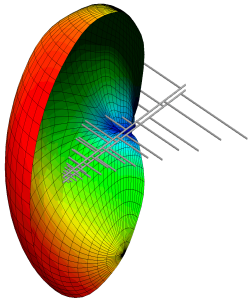




# SEMCE(I)



## Short Course on **The Finite Difference Time Domain Method for Electromagnetics**

13-15, December 2011, Bangalore, India

**Prof. Raj Mittra, Pennsylvania State University, USA**

With the rapid increase in performance of desktop computers it has become feasible for designers to apply Computational Electromagnetics to determine the electromagnetic behaviour of many systems without the need for supercomputing facilities. Examples range from Enclosure Shielding, Emissions from Heat Sinks, Propagation of Electromagnetic Energy into Living Tissue, Antenna Design, Printed Circuit Board Layout, Connectors & Cables, RCS prediction, Scattering Problems, Transient Field Coupling.

This 3-day course presents the principles behind the time-domain numerical electromagnetic technique - Finite Difference Time Domain (FDTD) Method.

### Course Scope

This course aims to give the delegate an appreciation of the uses and limitations of FDTD technique applied to RF problems. The course gives the delegate a thorough understanding in the methodology of the technique from a fundamental standpoint, while giving a grasp of the practical applications.

### Course Contents

The FDTD Method, Boundary Conditions, Improvement of the FDTD Method, Excitation Source, Data Collection and Post-processing, Recent Advances in FDTD, Examples of Real-world Problems Solved by Using FDTD.

**Venue: The Grand Magrath Hotel, 30, Magrath Road, Bangalore, India**

**How to Register:** The number of seats is limited to 50 and registration will be done on a First-Come-First-Serve basis. The course fee for this 3-day event is Rs 10,000. **Last Date for Registration & Payment: 15 Nov 2011.** For registration please contact: [semce.india@gmail.com](mailto:semce.india@gmail.com). **Contact Address:** Dr DC Pande, Sc H, Electronics & Radar Development Establishment, DRDO Complex, CV Raman Nagar, Bangalore 560093, India. Tel:91-80-2502 5295/2524 4750, Fax:91-80-2524 2873



**Prof. Raj Mittra** is Professor in the Electrical Engineering department of the Pennsylvania State University. He is also the Director of the Electromagnetic Communication Laboratory, which is affiliated with the Communication and Space Sciences Laboratory of the EE Department. Prior to joining Penn State he was a Professor in Electrical and Computer Engineering at the University of Illinois in Urbana Champaign.

Prof. Mittra is the president of RM Associates – a Consulting and Software Development Company providing services to the department of Defense and many major aerospace, computer and communications companies, both in the U.S. and abroad – since 1980.

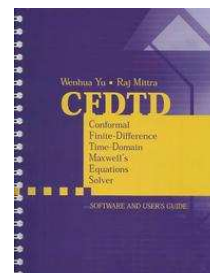
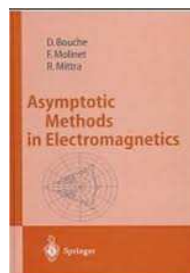
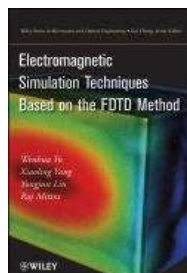
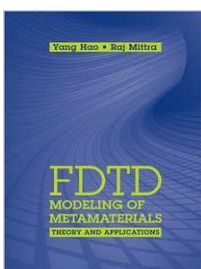
He is a Life Fellow of the IEEE, a Past-President of AP-S, and he has served as the Editor of the Transactions of the Antennas and Propagation Society. He won the Guggenheim Fellowship Award in 1965, the IEEE Centennial Medal in 1984, the IEEE Millennium medal in 2000, the IEEE/AP-S Distinguished Achievement Award in 2002, the AP-S Chen-To Tai Distinguished Educator Award in 2004 and the IEEE Electromagnetics Award in 2006. He has been a Visiting Professor at Oxford University, Oxford, England and at the Technical University of Denmark, Lyngby. He has also served as the North American editor of the journal AEU (1975-2001).

His professional interests include the areas of Communication Antenna Design, RF circuits, Computational Electromagnetics, Electromagnetic Modeling and Simulation of Electronic Packages, EMC Analysis, Radar Scattering, Frequency Selective Surfaces, Microwave and Millimeter Wave Integrated Circuits, and Satellite Antennas.

He has published over 980 journal and symposium papers and more than 40 books or book chapters on various topics related to Electromagnetics, Antennas, Microwaves and Electronic Packaging. He also has three patents on Communication Antennas to his credit. He has supervised about 100 Ph.D. Theses, 85 M.S. Theses, and has mentored more than 50 post-docs and Visiting scholars.

### Other Experience:

- University of Colorado, Engineering Experiment Station, Research Associate, 1959
- University of Colorado and National Bureau of Standards, Colorado, Research Associate, 1963
- Oxford University, England, Dept of Engineering Science, Visiting Professor, 1965-1966
- Bell Telephone Laboratories, New Jersey, Antenna Research Dept., Research Specialist, 1967
- TRW Systems, Redondo Beach, California, Research Specialist, 1968
- University of Illinois, Urbana, Illinois, Center for Advanced Study, 1968
- TRW Systems, Redondo Beach, California, Research Specialist, 1969.
- Technical University of Denmark, Lyngby, Denmark, Visiting Professor, 1971-1972
- University of Illinois, Urbana, Electrical Engg. Dept., Associate Director, EM Lab, 1972-1983





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### Registration Form

1. Name: Dr/Ms/Mr: .....
2. Designation: .....
3. Organization/Company Name: .....  
.....
4. Mailing Address: .....  
.....  
.....
5. Phone: .....
6. Fax: .....
7. Email: .....
8. Qualification: .....
9. Experience: .....  
.....  
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10. Payment Details: (DD/Chq/Cash) .....  
.....

**Contact Address:**

**Dr DC Pande, Sc H**

**Electronics & Radar Development Establishment,  
DRDO Complex, CV Raman Nagar, Bangalore 560093,  
India**

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