



The IEEE Electromagnetic Compatibility Society Singapore and IHPC  
Presents:

## Progress and Challenges in EMC Modelling and Simulation

**Prof. Christos Christopoulos**

Professor of Electrical Engineering at The University of Nottingham, U.K. Chairman of the IEE  
EMC Professional Network and Associate Editor of the IEEE EMC Transactions.

Location: Auditorium

Institute of High Performance Computing (IHPC)

1 Science Park Road,

#01-01 The Capricorn

Science Park II

Singapore 117528

Date: Monday, July 15, 2002

Time: 2:30 to 4:30 pm

Admission: Free of Charge

Please fill in the registration form. Limited seats are available.

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Pre Registration Form to Ms Wendy Tan , email ( [wendy@ihpc.nus.edu.sg](mailto:wendy@ihpc.nus.edu.sg) ) or fax this response form by  
11 July 2002 to 64191280

Please print/write clearly in black for fax transmission

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## Chapter meeting of the EMC Society, Singapore

The Singapore IEEE EMC Society in conjunction with Institute of High Performance Computing (IHPC) is presenting our chapter meeting with Prof. Christopoulos to speak on the subject of modelling and simulation techniques for EMC. This is a topic that focuses on the underlying techniques used by the computer as tools to imitate the electromagnetic mechanism that may create the EMC situation. This is an opportunity for chapter members to meet and get together. The technical talk will be useful for engineers dealing with the variety of software used to evaluate the EMC performance of a given design and construction. The purpose of this event is to offer some fundamental background on the techniques used by computers for electromagnetic simulation and to highlight recent advances in this field.

### Outline:

In recent years increased emphasis has been placed on simulating the EMC behaviour of systems early in the design phase so that likely problems are anticipated and solutions are sought. This offers significant cost and time savings. Yet, EMC problems are very challenging and the electromagnetic coupling mechanisms are difficult to predict in complex configurations.

A number of techniques were developed to overcome these difficulties and thus offer the designer, CAD tools of acceptable power and accuracy. In this talk, a survey of available techniques, their advantages and disadvantages and desirable future developments will be described and some examples will be given from successful simulations of system.

It is hoped that at the end of the talk it will be clearer why there are so many different techniques, what are their advantages and disadvantages and what level of complexity can be dealt with at present and at what cost and accuracy.

### About the speaker:

**Prof. Christos Christopoulos** is Professor of Electrical Engineering at The University of Nottingham, U.K. and Leader of the Electromagnetics Research Group (ERG). His interests cover all aspects of Computational Electromagnetics with a particular focus on applications in Electromagnetic Compatibility and Signal Integrity. He is currently Chairman of the IEE EMC Professional Network and Associate Editor of the IEEE EMC Transactions. He is the author of more than 250 journals and conference publications and four books, including a book on EMC.

*Personal profile:* <http://www.eee.nott.ac.uk/Staff/cc.html>

*Books by Prof. Christopoulos:* <http://www.eee.nott.ac.uk/erg/pubs.html>