The IEEE Electromagnetic Compatibility Society Singapore and IHPC
Presents:

Signal Integrity Design versus Radiated Emission Control

Cheung-Wei, Lam

Senior EMC Engineer, Apple Computer Inc. (Cupertino, California, USA), PhD (MIT), Member of the IEEE EMC Society Distinguished Lecturer Programe. Co-Founder and Principal Engineer of Transcendent Technology, former member of the TC-9 Computational Electromagnetics committee and the SAE EMC Modeling Task Force committee. Listed in Who's Who in Science and Engineering, Who's Who in America, and Who's Who in the World.

Location: Auditorium
Institute of High Performance Computing (IHPC)
1 Science Park Road,
#01-01 The Capricorn
Science Park II
Singapore 117528

Date: Tuesday, March 11, 2003

Time: 2:30 to 4:30 pm

Admission: Free of Charge

Please fill in the registration form and send them in early to avoid disappointment. Limited seats are available.

Pre Registration Form to Ms Wendy Tan , email (*wendy@ihpc.a-star.edu.sg*) (**To be confirmed latter**)
or fax this response form to 64191280
Please print/write clearly in black for fax transmission.

1 Mr/Ms/ _____ (EMCS / IEEE / others) E-mail_____

2 Mr/Ms/ _____ (EMCS / IEEE / others) E-mail_____

3 Mr/Ms/ _____ (EMCS / IEEE / others) E-mail_____

Company:_____

Address:_____

Contact-Person: Mr/Ms_____ Fax_____ E-mail_____

(ver. 0.1 21/1/03)

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 Dr Cheung-Wei Lam to speak on the subject designing for signal integrity and radiated emission control for EMC performance. This is a topic that focuses on the design relationship and trade offs between achiving good signal integrity and radiated emission. This is an opportunity for chapter members to meet and get together. The technical talk will be useful for engineers dealing with the various and sometimes seeming unrelated or even conflicting design requirements of a given product. The purpose of this event is to offer some background on the design issues that may have an impact on the product designer and enginees in the R&D field. This session seeks to highlight recent advances in this field.

About the speaker:

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 can be sought. This offers significant cost and time savings. Yet, EMC problems are very challenging and the electromagnetic coupling mechanisms are difficult to predict using traditional analytical methods.

A number of computationally based techniques has been developed in recent years to overcome some of these difficulties and thus offer the designer, CAD tools of acceptable power some possibility of getting answers with uncertain degree of accuracy. In this talk, a survey of the development of computer based models for EMC, their strength and weaknesss and some desirable future developments will be described in view of real world applications.

It is hoped that at the end of the talk it will be clearer why there are so many different types of modelling techniques for computer based software as applied for EMC, how these may be in view of the real world.

Dr Cheung-Wei Lam is currently a Senior EMC Engineer at Apple Computer, where he has implemented an EMC design and analysis process to facilitate on-time compliance at lower cost. At Apple, he is also engaged in IC, PCB and system level EMC R&D. Prior to joining Apple, he was a Co-Founder and Principal Engineer of Transcendent Technology. In addition to Transcendent, he has worked in Viewlogic's Advancement Development Group (formerly Quad Design Technology). During his years in the EDA industry, he has played key roles in the design and development of EMC, signal integrity and ground bounce analysis software tools. From 1988 to 1993, he was with the MIT Research Laboratory of Electronics, where his focus was on modeling of high-speed interconnects and superconducting transmission lines.

Dr. Lam received the B.S. degree in electronics from the Chinese University of Hong Kong, and the S.M. and PhD degrees in electrical engineering and computer science from MIT.

Dr. Lam has served on the IEEE EMC/S TC-9 Computational EMC committee and the SAE EMC Modeling Task Force committee. He has given numerous papers, seminars, workshops, tutorials, and training courses on various EMC and signal integrity topics in the US, Europe andJapan. He was a co-recipient of the best paper award at the 1996 IEEE International Symposium on EMC. He is listed in Who's Who Science and Engineering, Who's Who in America, and Who's Who in the World.

URLs:

website by TC9 on CEM modelling and validation
< http://www.ewh.ieee.org/cmte/tc9/ >

Appointment of Dr. C.W. Lam as distinguished lectrer of the EMCS
< http://services3.ieee.org/organizations/pubs/newsletters/emcs/winter02/two.html >

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