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PES/IAS Joint Chapter, Hyderabad

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and

Power Systems Research Center, IIIT Hyderabad

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present a 2-day Tutorial on

**Computational Methods for Large Sparse Power Systems Analysis:
An Object Oriented Approach**

by Prof. S.A. Soman

Department of Electrical Engineering, Indian Institute of Technology, Bombay

Venue

IIIT Hyderabad, Gachibowli, Hyderabad

Date

12-13 November, 2005

About Organisers

IEEE: Institute of Electrical and Electronics Engineers is the largest world wide technical professional society of electrical, electronics, computer science, communication engineers. Founded in 1884, the Institute today comprises over 3.3 lakh members worldwide. For more details visit www.ieee.org.

Power Engineering Society (PES): The scope of this society encompasses planning, research, development, design, applications, installations, and operational facilities of generation, transmission and distribution of electrical energy. The Hyderabad Chapter was awarded the PES Outstanding award in 1996 for its activities during that year.

Industry Application Society (IAS): The scope of this Society covers the global development, design, manufacture and devices controls for electrical processes and equipment, promotion of safety, reliable and economic installations, and industry leadership in energy conservation, environment and safety issues. Hyderabad Chapter has been awarded IAS Outstanding Small Chapter Award for the year 2000.

Power Systems Research Center, IIIT Hyderabad: Power Systems Research Center at the International Institute of Information Technology, Gachibowli, Hyderabad, focuses on various areas of IT applications to Power Systems. Currently this center offers MS by Research and PhD Programmes in the area of IT Applications to Power Systems.

Registration

Please register if you wish to participate in the tutorial using the attached form, before November 5th, 2005. Fee to be paid in cash or in the form of DD payable to 'IEEE Hyderabad Section'.

**Program
Co-ordinators**

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About the Speaker

Prof. S. A. Soman obtained BE in Electrical Engineering from Maulana Azad College of Technology (REC) Bhopal in 1989, M. E. & Ph.D. in Electrical Engineering from Indian Institute of Science Bangalore in 1992 and 1996 respectively. In 1996, he joined department of Electrical Engineering IITB as a faculty member. He was a Full bright Scholar at Univ. of Illinois at Urbana Champaign in 2002. He has authored many publications in international journals and conferences. He is also an author of a book titled "Computational Methods for Large Sparse Power Systems Analysis: An Object Oriented Approach", which was published by Kluwer Academic Publishers (Now Springer Verlag) in 2001. His research interests include power system analysis & computations, protection, deregulation and object oriented systems.

About the Tutorial

This 2-day tutorial on 'Computational Methods for Large Sparse Power Systems Analysis: An Object Oriented Approach' covers various aspects of Power System Analysis of Large Power Systems an Object Oriented Approach. This shall be based on book titled "Computational Methods for Large Sparse Power Systems Analysis: An Object Oriented Approach", and published by Kluwer Academic Publishers (Now Springer Verlag) in 2001.

Computational methods in Power Systems require significant inputs from diverse disciplines, such as data base structures, numerical analysis

etc. Strategic decisions in sparsity exploitation and algorithm design influence large-scale simulation and high-speed computations. Selection of programming paradigm shapes the design, its modularity and reusability. This has a far reaching effect on software maintenance. This Tutorial, which is based on the book, provides a unified object oriented (OO) treatment for power system analysis. Sparsity exploitation techniques in OO paradigm are emphasized to facilitate large scale and fast computing. Specific applications like large-scale load flow, short circuit analysis, state estimation and optimal power flow are discussed within this framework. Role of design patterns in OO computations will be discussed.

Accommodation

Accommodation will be provided in IIIT Hostels on request and payment of Rs. 250 per day.

Venue : IIIT Hyderabad,
Gachibowli, Hyderabad

Timings : 9:30 AM to 5:30 PM

Those wishing to participate can fill the registration form and send it to us latest by November 5th, 2005. If seats are available, registration shall be done at the venue also. The registration fee is as follows:

IEEE Members : Rs.1000
IEEE Student Members: Rs. 300
Students : Rs. 500
Others: Rs. 2000



REGISTRATION FORM

Tutorial on Computational Methods for Large Sparse Power Systems Analysis: An Object Oriented Approach

12th-13th November, 2005

NAME: _____

INSTITUTION: _____

DESIGNATION: _____

MAILING ADDRESS: _____

CITY: _____ **PIN:** _____

TELEPHONE: _____

FAX: _____

E-MAIL: _____

IEEE MEMBER: Y/N

MEMBERSHIP NO: _____

Registration Details:

Rs.1000 for IEEE Members; Rs. 300 for IEEE Student Members; Rs. 500 for Students; Rs. 2000 for others

(Signature of Applicant)

Please send this form with payment by 5th Nov., 2005 to:

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