

Co-ordinators

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Who Should Attend

Academicians, officers/engineers from public energy/power utilities, corporate entities in the energy/power sector including equipment manufacturers and consultants, R&D organizations and Regulatory Commissions.

Workshop Website

Please visit the workshop website for downloading brochure, registration form and updates

<http://www.iitk.ac.in/wams2012>

Registration Fee Structure

Fee Structure	Registration Fee
Academicians	Rs. 3000
Industries/Utilities/ R&D Organizations/Regulatory Commissions	Rs. 5000

Participants interested in attending the workshop must send the filled up registration form, along with the registration fee latest by 31st March 2012 to the workshop coordinators by post, with a scanned copy through email. The payment has to be made through Demand Draft (DD)/multi city cheque in favour of **“Coordinators, WAMCPS”** payable at State Bank of India, IIT Kanpur Branch (Code – 1161). Only limited double shared room accommodations are available in the Visitors’ Hostel/Visitors’ Hostel Extension at IIT Kanpur, which will be provided on the first come first serve basis. The charges for these rooms will be as per the Institute norms. The participants must clearly indicate their preference, if they wish to stay inside the campus.

WAMC System Products Exhibition

Manufacturers of the synchrophasor equipment, such as PMUs, Phasor Data Concentrator, and developers of the associated visualization/ application software are invited to exhibit their products and technology during the workshop. A separate stall will be provided to each exhibitor for this purpose near the venue of the workshop. The registration amount for this purpose is Rs. 25000, which will also allow free participation of two persons from their organization.

Sponsorship

Sponsorship of the workshop is invited from Power utilities/Industries/R&D organizations. The sponsorship can be in the category of 'Platinum' or 'Gold' or 'Silver' amounting to a financial support of Rs. 2 lakh, Rs. 1 lakh, and Rs. 50,000, respectively. The names of the sponsors will be included in the proceedings of the workshop. The sponsors in the above three categories will be allowed free participation of four (4), two (2) and one (1) of their officers, respectively. The organizations are requested to confirm their sponsorship by 15th March 2012. The amount can be paid through (DD)/multi city cheque in favour of **“Coordinators, WAMCPS”** payable at State Bank of India, IIT Kanpur Branch (Code: 1161).

National Workshop

on

Wide Area Monitoring and Control of Power Systems using Synchrophasor Technology



April 13-14, 2012

Jointly Organized by

Indian Institute of Technology Kanpur
and
Central Power Research Institute, Bangalore

REGISTRATION FORM

National Workshop

on

Wide Area Monitoring and Control of Power
Systems using Synchrophasor Technology

April 13-14, 2012

Name: _____

Designation: _____

Organisation: _____

Gender (for accommodation): M F

Accommodation required: Visitors Hostel Visitors Hostel Extn.

Correspondence Address: _____

_____ PIN: _____

Phone: _____ Fax: _____

E-mail: _____

Qualification: _____

Demand Draft/Cheque No. _____ Dated: _____

Amount Rs. _____ Drawn on _____

[DD/multi city cheque in favor of **“Coordinators, WAMCPS”**
payable at State Bank of India, IIT Kanpur branch (Code – 1161)]

Category Participant Exhibitor, from

Academic Institution

Industry /Utility/Regulatory /R&D Organisation

(Signature of Participant)

Forwarded

(Head of the Institution/Department)
Signature with seal

Introduction

The secure and reliable operation of modern power systems has become an increasingly challenging task due to the ever-increasing demand for electricity, the growing number of interconnections, penetration of variable renewable energy sources, and energy market conditions. Several blackout events in recent past, worldwide, have necessitated the use of more intelligent and automated systems for online monitoring, protection and control of the power systems. Wide Area Monitoring and Control (WAMC) systems deploy Phasor Measurement Units (PMUs) at selected locations in the transmission network. PMUs provide GPS synchronized time stamped voltage and current phasor measurements at sub-second rate. The time-synchronized measurement system enhances the situational awareness through better estimates of the states than the conventional Supervisory Control and Data Acquisition (SCADA) system and, hence, facilitates the use of several online decision and alarming tools for control of the power system stability and security. The WAMC systems have already been deployed in the electricity grids of several countries and has been planned to be deployed in the Indian regional power grid networks.

Objective

The main objective of this workshop, which is co-organized with the *Central Power Research Institute (CPRI), India*, is to identify specific problems which need immediate focus to handle the challenges of **Wide area Monitoring and Control (WAMC)**. The concept needs to be evolved organically from within the country. In this workshop, eminent speakers will be invited to address specific issues on the technological aspects of the WAMC system, its architecture, various monitoring and real time control applications and testing requirements. The workshop will be supplemented by lab scale demo of the WAMC technology using Real Time Digital Simulator (RTDS) platform and the exhibits by some of the manufactures of the synchrophasor equipment. The workshop will culminate in a panel discussion to identify specific research and development challenges as well as deployment issues.

Sessions/Topics

The workshop will focus on the following topics for deliberation.

- Introduction to synchrophasor technology.
- Optimal placement of phasor measurement units.
- Hybrid state estimation.
- Angular stability prediction.
- Voltage stability prediction.
- Wide area protection and control applications.
- Synchrophasor testing requirements.
- Synchrophasor deployment in the Indian grid.

Lead Speakers/Panelists

The speakers/panelists for the workshop include leading experts from utilities/industries/R&D organization and academicians from renowned institutions. IIT Kanpur had also carried out a project funded by CPRI Bangalore on **“Wide Area Measurement and Control for Improving Observability and Stability of Power System”**. Main findings and methodology developed in this project will also be disseminated.

Schedule and Venue

Schedule: April 13-14, 2012

Venue: Outreach Center Auditorium, IIT Kanpur

*For logistical details, please see the **Workshop website**.*

Note: Please send this form, along with DD/cheque to the Workshop Coordinators latest by March 31, 2012.