

Distinguish Lecturer Program
IEEE Instrumentation & Measurement Society (IMS)
March 01, 2019



Organized by:

IEEE Joint CSS-IMS Chapter, Kolkata

In collaboration with:

**Dept. of Electrical Engineering,
Indian Institute of Engineering Science and
Technology, Shibpur, West Bengal**

**Talk Title: High Reporting Rate
Measurements for Smart(er) Grids**

Professor Mihaela Albu

(Dept. of Electrical Engineering, Politehnica University of Bucharest, Romania)

The talk will address:

o **The measurement paradigm in power systems;**

- System inertia, real time and steady-state
- Instrument transformers; limited knowledge on the infrastructure
- PQ, SCADA and PMUs
- Power system state estimation; WAMCS
- IEDs, PMUs, microPMUs
- Time-stamped versus synchronized measurements

o **Measurement channel quality and models for energy transfer**

- Voltage and frequency variability; rate of change of frequency
- The steady-state signal and rapid voltage changes (RVC); rms-values reported with 100 frames/s;
- Measurement data aggregation; filtering properties
- Time- aggregation algorithms in the PQ framework
- Statistical approaches;

o **Applications and challenges**

- Communication channel requirements; delay assessment in WAMCS
- Smart metering with high reporting rate (1s)
- The presentation provides an overview of these techniques, with examples from worldwide measurement solutions for smart grids deployment.

Enquiry: Neelbrata Roy, Research Scholar, IEST, M: 09073022184; email: cssimskolkata@gmail.com

Updates will be available at :

http://ewh.ieee.org/r10/calcutta/css_ims/index.html.

Registration is mandatory, for online registration, use the link:

<https://goo.gl/forms/6pg1Me1wXXvZEPfL2>

Venue: Seminar Hall, Electrical Engineering, Time : 3:00-5:00 pm
Indian Institute of Engineering Science and Technology,
Shibpur, Botanic Garden, Howrah - 711 103, West Bengal. India.