

[IEEE.org](#) | [IEEE Xplore Digital Library](#) | [IEEE Standards](#) | [IEEE Spectrum](#) | [More Sites](#)

- [Sign In](#)



IEEE vTools EVENTS

- [vTools](#)

 - [vTools](#)
 - [vTools Blog](#)
 - [vTools Tutorials](#)
 - [eNotice](#)
 - [Events](#)
 - [Officer Reporting](#)
 - [Surveys](#)
 - [Student Branch Reporting](#)
 - [Voting](#)
 - [WebInABox](#)
 - [Xtreme](#)
- [Search Events](#)
- [Create an Event](#)
- [Events Reporting](#)
- [View Feeds](#)
- [About](#)

Looking into the Future Protection, Automation and Control Systems

The smart grid deployments are changing the power system and facilitating new technology development.

The changing landscape is more apparent in distribution systems with the integration of renewable energy sources, energy storage, and microgrid development. However, technological breakthroughs are applicable to both transmission and distribution protection, automation and control.

Coupled by the industry drive towards improved reliability and resiliency of the grid, the renewed focus on protection, automation and control is required to address the challenges. One possible future direction for protection, automation, and control systems is Centralized Protection and Control (CPC).

The CPC concept has been inherent to the idea of “computer relaying”, proposed in the 1970’s but the technology not capable of a practical implementation at that time. Advancements in communication technologies provide opportunities for protection, automation and control strategies that build upon the available and emerging technologies, and related industry standards, which can be applied to support a strong long-term business case, now support the reality of CPC.

This presentation is based on the IEEE PES PSRC report “Centralized Substation Protection and Control”. The presentation starts with the history of CPC with a review of past systems, followed by a discussion on the realities of using CPC: architecture, reliability, testing, and maintenance of the system.

Traditional system is compared with the CPC based system along with the experience of a pilot CPC project using available technologies. Using this example, the presentation discusses emerging and future applications for protection and control which will require a paradigm shift in the way we approach the engineering, operation and maintenance of the power system protection, automation and control. Some of these applications can only be applied with a CPC approach while others will significantly benefit from having the high-performance computing platform at the substation which centralizes protection, automation and control.

Date and Time

Location

Contact

Registration

Date: **23 May 2016**

Time: **04:30 PM to 05:30 PM**

All times are US/Eastern

 [Add to Google Calendar](#)

9th & Hamilton Streets
Allentown, Pennsylvania
United States

Building: PPL_EU Auditorium (enter PPL Tower Building on west side of 9th Street)



Email event contact

Registration is required by noon, May 19 for all attendees.

PHOTO ID REQUIRED: Sign-in at PPL_EU Security Desk; mention you are there for the IEEE Presentation in the Auditorium to the right of the security desk on the ground floor.

Parking is available on the street and also in Holiday Inn Parking Garage across the street from PPL_EU.

Registration closed

Speakers

Ratan Das of representing the Working Group K15 of the Substations Subcommittee, IEEE Power System Relaying Committee

Topic: **Looking into the Future Protection, Automation and Control Systems**

Biography:

Ratan Das is the founder of icaPower, which serves customers in power system protection, automation and control. He is the chair of the IEEE Power System Relaying Committee WG K15 on Centralized Substation Protection and Control. Ratan received his B.E.E. (Hons.) degree from Jadavpur University, Kolkata, India, and M.Sc. and Ph.D. degrees in Electrical Engineering from the University of Saskatchewan, Canada. He has worked in power system protection, automation and control for 29 years: with NTPC Ltd., India, for 11 years, and with ABB Inc., USA, for 18 years. Ratan holds four patents and has contributed to over 30 publications.

Agenda

Light snacks and beverages will be provided after the presentation.

Please note under special requests if you wish to receive a PDH certificate. You must include your IEEE member number, if you are a PES member, and e-mail. PDH's are available for IEEE members only.

Not an IEEE member? Join us!

http://www.ieee.org/membership_services/membership/join/index.html

[Home](#) | [Contact & Support](#) | [Accessibility](#) | [Nondiscrimination Policy](#) | [Privacy & Opting Out of Cookies](#) | [Feedback](#)

version 6.1.2

© Copyright 2013-2017 IEEE – All rights reserved. Use of this Web site signifies your agreement to the [IEEE Terms and Conditions](#).

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.