

Clemson PSC 2007

Tuesday, March 13th, 2007

Clemson University, Madren Center – Ballroom C

8:00AM – 5:00PM

GE Multilin & GE Energy present

- **SYNCHROPHASER APPLICATIONS**
- **UNIFIED CAPACITOR PROTECTION & CONTROL WITH AUTOTUNING**
- **ADVANCED POWER TRANSFORMER PROTECTION & DIAGNOSTICS**
- **COST REDUCED POWER AUTOMATION**

Join us to explore communication, automation, protection and diagnostic applications that enhance Power Delivery, Asset Preservation, Power System Operations and SCADA

INTRODUCTIONS – WHAT'S NEW

- Analog Data Transmission
- Math Functions
- Synchrophasor Availability in UR and UR^{Plus}
- New Solutions for Protection Betterment

ADVANCED CAPACITOR PROTECTION & CONTROL

Introduction of Newest UR Family Member – C70

- Review of capacitor bank configurations per C37.99, Guide for the Protection of Shunt Capacitor Banks
- How to meet any challenge per C37.99 or faults and unbalances (maximize reliability and security)
- Advanced sensitivity through unique auto-tuning / setting (maximize sensitivity, minimize calculation work)
- Automatic Control through:
 - PF/VAr with voltage override (optimize reactive support)
 - Time of day (meet legacy control requirements)
- Manual/Remote Control (maximize application flexibility and safety)

SYNCHROPHASOR SYSTEM CONFIGURATION & APPLICATIONS

- Performance / Data format configuration
- Time Synchronization Requirements
- Record Triggering
- Data Streaming Options

ADVANCED POWER TRANSFORMER PROTECTION AND MONITORING

- **Improving Protection and Operations of Power Transformers**
 - Basics of transformer design and transformer operation
 - Thermal overload protection of transformers to prevent transformer failure
 - Monitoring winding temperatures and loss-of-life to manage transformers
 - Where to monitor temperature and loss-of-life in the transformer
 - Monitoring the insulating oil to manage transformers
 - Managing the data from transformer protection and monitoring equipment
- **Understanding the Power Transformer**
 - Understanding the chemistry and physics of the insulation system of power transformers
 - How moisture in the insulation system (oil and paper) affects the operating condition of power transformer
 - How data is translated into actual transformer information using ‘models’
 - How to calculate the financial benefits (because money always talks)

SUBSTATION AUTOMATION TECHNIQUES AND APPLICATIONS

- Where are you in the Distribution Automation Continuum?
- BPL (broadband powerline carrier) for data communications within your substation yard
- Hardened substation HMI platform for reliability and optimized cost
- Secure Substation Automation Architectures

**Continental Breakfast (7:30-8:30A), Breaks with Refreshments
and Lunch (12:00-1:00P) Provided**

Tutorial presented by:

- Mark Adamiak (GE-Multilin)
- Rich Hunt (GE Multilin)
- Bill Whitehead (GE Energy)
- Herman Vogel (GE Energy)
- Wayne Hartmann (GE-Multilin)

For questions, please contact:

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To register, go to <http://www.ces.clemson.edu/powsys2007/> or contact

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