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## Accommodations

Hotel accommodations are available at the Georgia Tech Hotel & Conference Center, 800 Spring St. NW Atlanta, GA 30308. For any other requests or inquiries, please call the hotel directly at (800) 706-2899 or (404) 838-2100. Be sure to indicate you are attending the Georgia Tech Protective Relaying Conference, or give them the group password "prcfa0513", to receive our special rate.

## Hospitality Suites

You are encouraged to visit the hospitality suites, after 5 p.m. on Monday-Thursday, May 6-9 at the Georgia Tech Hotel and Conference Center.

## Registration Change Policy

GTPE's Registration Change Policy may be found at [www.pe.gatech.edu/policies](http://www.pe.gatech.edu/policies). Click on the Registration Change Form link.

Transfer or substitution requests must be made using the Registration Change Form and submitted by:

- E-mail: [peregistration@gatech.edu](mailto:peregistration@gatech.edu)
- Fax: 404-894-8925
- Mail: Georgia Tech Professional Education, P.O. Box 93686, Atlanta, GA 30377-0686

Georgia Tech Professional Education (GTPE) reserves the right to substitute instructors, change course dates and locations, or cancel a course due to insufficient enrollment or unforeseen events. If GTPE must cancel a course, participants will be notified via email or phone and will be given the option for a full refund or to transfer their registration to another course.

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## POWER SYSTEM CONFERENCES

### 16<sup>th</sup> Annual

# Georgia Tech Fault and Disturbance Analysis Conference

Monday-Tuesday, May 6-7, 2013  
Georgia Tech Global Learning Center | Atlanta  
1.4 CEUs • \$300

## Two Easy Ways to Register

Online: [www.pe.gatech.edu/2013-fdac-prc](http://www.pe.gatech.edu/2013-fdac-prc) • Phone: 404-385-3501

**16<sup>th</sup> Annual Georgia Tech Fault and Disturbance Analysis Conference**  
Monday-Tuesday, May 6-7, 2013 | Georgia Tech Global Learning Center  
Early Bird Fee by April 22: \$260 | Standard Conference Fee: \$300

**OR BOTH 67<sup>th</sup> Annual Protective Conference and  
16<sup>th</sup> Annual Fault and Disturbance Analysis Conference**  
Monday-Friday, May 6-10 | Georgia Tech Hotel  
Early Bird Fee by April 22: \$530 | Standard Conference Fee: \$650

[www.pe.gatech.edu/2013-fdac-prc](http://www.pe.gatech.edu/2013-fdac-prc)

Register by April 22<sup>nd</sup> and SAVE!

Georgia Institute of Technology  
Professional Education  
P.O. Box 93686  
Atlanta, GA 30377-0686

ADVANCE  
YOURSELF

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Georgia  
Tech Professional  
Education

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POWER SYSTEM CONFERENCES

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Examine Recent Electrical Disturbances and Possible Solutions

[www.pe.gatech.edu/2013-fdac-prc](http://www.pe.gatech.edu/2013-fdac-prc)



**Monday, May 6, 2013**

8:00 AM Registration – Georgia Tech Global Learning Center

8:30 AM **Conference Opening / Welcoming Remarks**  
**A.P. Sakis Meliopoulos**, Georgia Power Distinguished Professor, School of Electrical and Computer Engineering  
**David Bertagnolli**, Chairman, Transient Recorder Users Council\*  
**Marlin Browning**, Vice Chairman, Transient Recorder Users Council\*

Morning Session MA (Georgia Tech Global Learning Center)  
 Session Chair: **Greg Bradley**, APP Engineering, Inc.  
 Co-Chair: **Phillip L. Corliss**, PMC Consulting, LLC

8:40 AM **Event Analysis in Distribution Systems in a Smart Grid**  
**Dr. Alexander Apostolov**, OMICRON electronics

9:20 AM **Traveling Wave Fault Location in Protective Relays: Design, Testing, and Results**  
**Stephen Marx**, Bonneville Power Administration  
**Brian K. Johnson**, University of Idaho  
**Armando Guzmán, Venkat Mynam, Veselin Skendzic**, Schweitzer Engineering Laboratories, Inc.

10:00 AM BREAK

10:20 AM **Analysis of SOTF Scheme Operations for Adjacent Line Faults at National Grid**  
**Song Ji, Yujie Irene Lu**, National Grid  
**David Bertagnolli**, ISO New England

11:00 AM **Integrated Automation System Based on Protection Zone Dynamic State Estimation**  
**A. P. Sakis Meliopoulos, George Cokkinides**, Georgia Tech  
**Paul Myrda**, EPRI

11:40 AM Best Paper Award Presentation

11:50 AM LUNCH (on your own)

Afternoon Session MP (Georgia Tech Global Learning Center)  
 Session Chair: **Andy Windham**, Georgia Power Company  
 Co-Chair: **Jim Hackett**, Mehta Tech Inc.

12:50 PM **NERC Update**  
**Bob Cummings/Gregory Henry**, North American Electric Reliability Corporation

1:30 PM **Designing and Testing Precise Time-Distribution Systems**  
**Edmund O. Schweitzer III, David Whitehead, Ken Fodero, Shankar Achanta**, Schweitzer Engineering Laboratories, Inc.

2:10 PM BREAK

2:30 PM **IEC 61850 interoperability between recorders and relays**  
**Hugo Davila, Nan Zhang, René Midence**, ERLPhase Power Technologies

3:10 PM **Display and Discussion of Actual Fault Records Brought by Participants**  
 Moderator: **Robert Orndorff**, Dominion Virginia Power

3:50 PM BREAK

4:00 PM **User Forum**  
 Moderator: **Theo Laughner**, Tennessee Valley Authority

5:00 PM ADJOURN

**Tuesday, May 7, 2013**

Morning Session TA (Georgia Tech Global Learning Center)  
 Session Chair: **Jeff Ricker**, Consumers Energy  
 Co-Chair: **Robert Orndorff**, Dominion Virginia Power

8:00 AM **Relay Mis-operation caused by Arcing CT and its Mitigation Discussions**  
**Tao Xia, Robert M Orndorff**, Dominion

8:40 AM **Software Architecture for Automated Fault Analysis: Scalable Deployment and Use of Open Source**  
**T. Popovic**, XpertPower  
**M. Kezunovic**, Texas A&M  
**B. Drstajic**, University of Montenegro

9:20 AM **Lightning Induced Faults on Power Lines**  
**Theo Laughner**, Tennessee Valley Authority

10:00 AM BREAK

10:20 AM *Sub 1st A/E - Tribhuvan Choubey*  
**Evaluation of Distance Protective Relays responses to various Power System Transmission Line Models**  
**Alberto Gutierrez, A. Barradas**

11:00 AM **An Expert System (ES) to Evaluate and Characterize Faults in Transmission Lines Using Case-Based Reasoning (CBR)**  
**Fernando Henao, Jaime Amaya, Rodrigo Jaramillo, Farmer Monterrosa**, Interconexión Eléctrica S.A. E.S.P. (ISA), Medellín, Columbia

11:40 AM LUNCH (on your own)

Afternoon Session TP (Georgia Tech Global Learning Center)  
 Session Chair: **Tony Napikoski**, United Illuminating  
 Co-Chair: **Marlin Browning**, Georgia Transmission Corp.

12:40 PM **Double Ended Fault Location Application using C37.114**  
**Amir Makki**, Softstuf, Inc.  
**Robert Orndorff, Brian Starling**, Dominion Virginia Power

\*Please visit [www.truc.org](http://www.truc.org) for information on the Transient Recorder Users Council.

1:20 PM **Testing of the Fault Location Function in Devices and Disturbance Analysis Systems**  
**Alexander Apostolov**, OMICRON electronics

2:00 PM **Disturbance/Misoperation Analysis at OG&E**  
**Austin D. White**, Oklahoma Gas & Electric

2:40 PM BREAK

3:00 PM **Open Source Fault Location in the Real World**  
**Fred Elmendorf**, Grid Solutions Services

3:40 PM **Implementation of Double Ended Travelling Wave Fault Location when One End is a Transformer Feeder**  
**David Cole, Mark Diamond**, Qualitrol

4:20 PM **An unfaulted 115kV line over-trip by multiple grounds in VT secondary circuits**  
**Song Ji, Yujie Irene Lu**, National Grid

5:00 PM ADJOURN

**Alternate Papers**

**Vulnerabilities and challenges on PMU and WAMS deployment**  
**Tribhuvan Choubey, Ronald Lavorin**, Southern California Edison

**IEEE Std. C37.242™ - Guide for Synchronization, Calibration, Testing, and Installation of Phasor Measurement Units (PMU) for Power System Protection and Control**  
**Farnoosh Rahmatian**, Quanta Technology  
**Jim Hackett**, Mehta Tech Inc.

**SmartGrid Decision-support and Fault Location System**  
**Lee (Liancheng) Wang**, Grid Sentinel Inc.  
**Jianjun Su**, Dezhou Electric Power Company

**Power Systems Engineering Certificate**

The Georgia Tech Power Systems Engineering Certificate provides a specialized education in power system modeling, design, control, and operation. Industry experts and Georgia Tech faculty will help you understand fundamental concepts and principles, and teach you how to apply them in order to solve real-world challenges.

**Core Courses**

- Integrated Grounding System Design and Testing
- Grounding, EMI, and Power Quality
- Power Distribution System Grounding and Transients
- Power System Relaying: Theory and Application
- Modern Energy Management Systems

**Elective Courses**

- Fault and Disturbance Analysis Conference
- Georgia Tech Protective Relaying Conference

For more information and to download our catalog, visit [www.pe.gatech.edu/power/certificate](http://www.pe.gatech.edu/power/certificate).

