

## 27th Annual Georgia Tech Fault and Disturbance Conference May 5-6, 2025

Monday, May 5, 2025	
8:00 AM	<b>Registration</b>
8:30 AM	<b>Conference Opening - Welcoming Remarks</b> A.P. Sakis Meliopoulos, Professor, School of Electrical and Computer Engineering, Georgia Tech Luis Collazo, Southern Company, Chair, Transient Recorder Users Council
<b>Morning Session - Session Chair:</b> Grace Piercy, <b>Session Vice-Chair:</b> Irene Lu	
8:40 AM	<b>A Case Study of a Shunt and Preexisting Series Simultaneous Fault</b> Luke Booth & Joe Perigo, Schweitzer Engineering Laboratories, Inc.; Eric Johnson, Dominion Energy (South Carolina)
9:15 AM	<b>Improved Multi-Ended Impedance-Based Fault Locating for Untransposed Transmission Lines</b> Sathish Mutha, Arun Shrestha & Sajal Harmukh, Schweitzer Engineering Laboratories, Inc.
9:50 AM	<b>Break</b>
10:10 AM	<b>TVA Response to Geomagnetic Storm May 10-13, 2024</b> Gary Kobet & Ulyana Elliott, Tennessee Valley Authority
10:45 AM	<b>A Primer on Harmonics and The Modern Grid</b> Theo Laughner, Lifescale Analytics; Bruce Warmack, Oak Ridge National Labs
11:20 AM	<b>Best Paper Award, Recognitions</b>
11:30 AM	<b>Lunch</b> - On Your Own
<b>Afternoon Session - Session Chair:</b> Lori Hartzog, <b>Session Vice-Chair:</b> Tony Ranson	
12:30 PM	<b>NERC Update</b> - Rich Bauer, NERC
1:05 PM	<b>TVA PQ Studies Evaluating the Impact of IBR Systems to HV Transmission Operations</b> James Rossmann, Grace Piercy & Tim Fritch, Tennessee Valley Authority
1:40 PM	<b>Break</b>
2:00 PM	<b>Analysis of 115kV circuit switcher damage during a normal switching operation</b> Song Ji, Irene Lu, Dan Hasenwinkel & Joshua Joseph, National Grid USA
2:35 PM	<b>Using Artificial Intelligence to Optimize an Automatic Distribution Fault Location System</b> Daniel Sabin, Schneider Electric
3:10 PM	<b>Break</b>
3:25 PM	<b>Application of Discrete Wavelet Transform Method to the Analysis of a Submarine Cable Trip to Determine Fault Location</b> Dean Sorensen, Song Ji & Dan Benoit, National Grid USA
4:00 PM	<b>Fault and disturbance records sharing platform – what it is and why we need it</b> Alexander Apostolov, OMICRON electronics
4:35 PM	<b>Display and Discussion of Actual Fault Records Brought by Participants</b> <b>Moderator:</b> Ethan Mueller <b>Co-Moderator:</b> ??
5:00 PM	<b>Adjourn</b>
5:00 - 9:00 PM	<b>Vendor Exhibits Open</b>

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<b>Tuesday, May 6, 2025</b>	
<b>Morning Session - Session Chair: Angelo Tempone , Session Vice-Chair: Doug Dunay</b>	
8:00 AM	<b>Understanding and interpreting lightning data</b> Ryan Said, Brooke Pearson & Hans Loewenheath, Vaisala
8:35 AM	<b>Observed Effects of Geomagnetic Disturbances from Wide Area Monitoring System</b> Theo Laughner, Lifescale Analytics; Stan Heckman, Bob Marshall & James Anderson, Whisker Labs
9:10 AM	<b>Reducing Network Requirements for Sending Triggered Point on Wave Data</b> Ritchie Carroll & Christoph Lackner, Grid Protection Alliance; Thomas Purcell & Jarad Johnston, Dominion Energy
9:45 AM	<b>Break</b>
10:05 AM	<b>Using EHV/HV Load Tap Changers to Correct Regional Voltage Unbalance</b> Jonathan Sides, Grace Piercy & John Hayden, Tennessee Valley Authority
10:40 AM	<b>PV site violating IEEE 1547 with RVCs</b> Chris Mullins, Power Monitors, Inc.
11:15 AM	<b>VELCO Pilot Project on Novel High-Resolution Point-On-Wave Monitoring for Transmission Event Analysis &amp; Model Validation</b> Dan Kopin & Zakia El Omari, VELCO; Cyril Brunner, Vermont Electric Cooperative (VEC); Xiaochuan Luo, ISO-NE; Kyle Thomas, Ana Ospina & Ryan Quint, Elevate Energy Consulting; Scott Caruso & Steve Glennon, Instrument the Grid; Amir Makki, Softstuf;
11:50 AM	<b>Lunch</b> - On Your Own
<b>Afternoon Session - Session Chair: TJ Purcell , Session Vice-Chair: Jon Goodson</b>	
12:50 PM	<b>Ferroresonance: TVA Experience &amp; Mitigation Methods</b> Gary Kobet, Tennessee Valley Authority
1:25 PM	<b>Mutual Coupling in Subtransmission Systems—A Real-World Experience</b> Mohit Sharma & Amanvir Sudan, Schweitzer Engineering Laboratories, Inc.; Cleofas Rojas, Los Angeles Department of Water and Power (LADWP); Aadityaa Padmanabhan, Electric Power Research Institute (EPRI)
2:00 PM	<b>Break</b>
2:20 PM	<b>Human-Centric Visualization Platform and Response Methodology for Automated Fault Analysis</b> Anastasios Karles, David Brimmer, Yaritna Matos-Ramos & Michael Baedke, Dominion Energy
2:55 PM	<b>Enhancing Grid Stability through Reactive Power Support from Inverter-Based Resources (IBRs)</b> Luis Rosa, Furkan Ilgin, Alexander Freeman, Genesis Alvarez, Gad Ilunga & Gerald Warchol, Dominion Energy Virginia
3:30 PM	<b>Break</b>
3:50 PM	<b>Unsupervised Clustering for Fault Analysis in High-Voltage Power Systems Using Voltage and Current Signals</b> Julian Oelhaf, Andreas Maier, Siming Bayer, Georg Kordowich & Johann Jaeger, Friedrich–Alexander University of Erlangen-Nuremberg;
4:25 PM	<b>A Collection of Bedtime Stories for Protection Engineers - Volume 1</b> Ed Chen, Jianzhuang Huang, Pallavi Kuchikulla, Naresh Malla, Khawla Munawwer, Lizhong Situ & Dan Taft, Consolidated Edison of New York
5:00 PM	<b>Closing Remarks - Adjourn</b>
5:00 - 9:00 PM	<b>Vendor Exhibits Open</b>

Alternate Papers & Coordinator: Chair Greg Bradley ,Vice-Chair Theo Laughner

**Application of EPRI PREMS II System to Solve Difficult Distribution and Customer Side Issues**

**James Owens & Eric Auel**, EPRI; **Brian Gutierrez**, CPS Energy; **Ed Kaminski**, Atlantic City Electric; **Tony Murphy**, Tennessee Valley Authority; **Travis Turnbull**, Dominion Energy

**High Channel Density Fault Recording with IEC61850 Sampled Values - Challenges and Benefits**

**Abhishek Madhyastha**, AMETEK Power Instruments

**Case Study - Consolidating Monitoring with Protection**

**Mike Ramlachan & Justin Comer**, GE Vernova