

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

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

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

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