

i-PCGRID Workshop 2019

Innovations in Protection & Control for Greater Reliability Infrastructure Development

Strategies for Energy Trends & Industry Sustainability

New Generation of Energy, Technology, Security, and Reliable Power Delivery

2.4 Continuing Education Units (CEU) available this year

To register, please contact Deanie Sanders, Mississippi State Univ. - Phone: (662) 325-2314

Program

March 27– 29, 2019

245 Market Street, Auditorium, San Francisco, California, USA

You are cordially invited to attend the Annual Workshop in Innovations in Protection and Control for Greater Reliability Infrastructure Development (i-PCGRID) hosted by Pacific Gas and Electric Co. (PG&E) and organized by PG&E, Mississippi State University and Quanta Technology. Join diverse industry leaders (utilities, vendors, consultants, regulators, and academics) united in a shared vision to craft a steady course towards higher level of resiliency, reliability, security, and energy efficiency. Participate in discussions surrounding technology advancements, and skill sets in support of the continuous grid modernization journey.

Modern society has reached a point where virtually every crucial economic and social function depends on the resilient, secure, reliable operation of the power and energy infrastructure. The energy industry worldwide is experiencing significant changes caused by rapid technology transformation, security and environmental concerns, evolving consumer needs, and regulated environment. The initiatives we undertake today affect the way in which the grid is operated and maintained in the future. The 2019 Workshop will explore business models and supply chain realities in the scope of utility technology transformation, the lessons learned from deployment of advanced technologies, strategies and operational aspects of managing electrical power systems and equipment assets to build a more resilient and efficient grid.

Core Program discussions focus on Key Success Factors and Technologies for Modernizing the Electrical Power System to provide reliable, safe, and cost-effective delivery of electrical energy around the world. **IN-DEPTH** featured topics dive into energy trends and industry sustainability, global grid resilience and modernization efforts and the required performance levels. Part of this year's program is focused on technical and regulatory opportunities and challenges. Electrical system planning and operations must transform to address integration of distributed energy resources, storage, and electrical transportation. Share your experiences and learn from others in dealing with integration of those technologies and impact on balancing demand and supply chain, as well as the need for new policies to address investments in support of the new energy trends. Worldwide sustainability roadmaps and efforts, to improve the performance of electric utility systems and address the energy needs of society, offer many lessons learned and winning strategies.

On-line Registration: <https://ipcgrid.ece.msstate.edu>

To register by phone, please contact Deanie Sanders: deanie@ece.msstate.edu

Electrical and Computer Engineering

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On-site registration is available during the Event. Partial registration is not available.

For questions, please contact us:

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Day 1 - Wednesday, March 27, 2019		
Time	Item	Presenter / Session Coordinator
7:15 AM	Registration & Refreshments Safety and Emergency Response	Davis Erwin – PG&E
8:00 AM	Introduction and Welcome	Davis Erwin, Damir Novosel, and Yong Fu
*8:10 AM	Incident Management at PG&E	Jonathan Seager – PG&E
*8:35 AM	The New Strategy for Exelon's Utilities	Joe Svachula – Exelon
*9:00 AM	Distribution System Operations & Data Analytics	Mark Carpenter – Oncor
9:25 AM	Modern EMS Solutions	Jean-Marc Moulin & Manu Parashar – GE
9:50 AM	Power System Resilience and Reliability	Robert Cummings – NERC
10:10 AM	Break <i>Session Coordinators:</i>	<i>Cheryl Gessner – PG&E, Reza Nasri – QT</i>
10:25 AM	IEEE 1547 Standard Update	Babak Enayati – National Grid
10:45 AM	Synchophasor RAS & Black-Start Tuning of Hydro Governors, COI 5100 Studies	Steve Yang, Dmitry Kosterev, Sam Hirsi -BPA
11:15 AM	Impact of Renewables on Protection	Mike Jensen – PG&E
11:35 AM	Machine Learning Applications	Marianna Vaiman – V&R Energy
11:55 AM	Lunch <i>Session Coordinators:</i>	<i>Fareed Khan – PG&E, Ani Sadikovic – QT</i>
12:55 PM	Automated Modelling of Power System Protection for Advanced Analysis of System Performance Moderator: Sam Alaeddini – Quanta Technology	Chris Bolton – SDG&E Jeff Shiles – SCE Aaron Feathers – PG&E
2:20 PM	Over-voltages in Inverter-based System	Ali Daneshpooy & Rahul Anilkumar – Quanta
2:45 PM	Innovative Synchophasor Applications	Pavel Etingov – PNNL
3:05 PM	Break <i>Session Coordinators:</i>	<i>Scott Hayes & Lise Phan – PG&E</i>
3:20 PM	Resilient & Cyber Secure Centralized Substation Protection	Sakis Meliopoulos – Georgia Tech University
3:40 PM	Software Defined Networking for Energy Delivery	Scott Mix – PNNL
4:00 PM	Risk-based Planning	Hamody Hindi – BPA
4:20 PM	IEEE-SA/Conformity Assessment	Jason Allnutt – IEEE
4:40 PM	Compensating DER for a DSO Future	Mihir Desu – Strategen
5:00 PM	Day 1 Closeout – Adjourn	<i>Damir Novosel and Davis Erwin</i>

* Keynote Speaker

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Day 2 - Thursday, March 28, 2019

Time	Item	Presenter
7:15 AM	Registration & Refreshments Safety and Emergency Response	Davis Erwin – PG&E
7:55 AM	Introduction & Greetings	Damir Novosel, Davis Erwin, and Yong Fu
*8:00 AM	Transmission Operations: Collaboration and Communication	Roderick Robinson – PG&E
*8:25 AM	Challenges of Today's Changing Grid	Chris Root – VELCO
*8:50 AM	Managing Weather Related Events at SCE	Bill Chiu – SCE
9:15 AM	Adoption of Digital Solutions to Improve Grid Reliability and Security	John Finney – ABB
9:35 AM	Reliability Perspectives for Bulk Power System Inverter-Based Resources	John Skeath – NERC
9:55 AM	Break <i>Session Coordinators:</i>	<i>Greg Langan & Alan Stanek -PG&E</i>
10:10 AM	Panel Session: Solutions and Technology for Weather Related Events Moderator: Yong Fu – MSU	Nick Moran – PG&E and J. Holbach – Quanta Niklas Winter – Swedish Neutral Jyrki Penttonen – Ensto, Finland Jeff Wischkaemper – Texas A&M University
11:45 AM	Overhead Transmission Line Monitoring System to 500 kV	Skip Kurz – Mosdorfer
12:05 Noon	Lunch <i>Session Coordinators:</i>	<i>Dessai Rustom, PG&E, Bill Davila-Applied Sys Eng.</i>
1:05 PM	Panel Session: DER Communication Requirements Moderator: Ralph Masiello – Quanta	Jessica Harrison – MISO Jim Pigeon – NY ISO Peter Klauer – CAISO
2:25 PM	Automated Fault Location Deployment at PG&E	M. Anderson – PG&E & J. Holbach – Quanta
2:45 PM	Industrial System Cyber Security	Peter Fuhr – ORNL
3:05 PM	Break <i>Session Coordinators:</i>	<i>Sun Young-Lai and Frankie Au-Yeung -PG&E</i>
3:20 PM	Robust and Grid-Supportive Operation of DERs under Unbalanced Grid Conditions	Masoud Karimi – MSU
3:40 PM	CURRENT Research Activities	Yilu Liu – University of Tennessee/ORNL
4:00 PM	Advancement in Power System Protection	Chul-Hwan Kim – Sung Kyun Kwan University
4:20 PM	RTDS Testing and Modeling	Om Nayak – RTDS
4:40 PM	Continuous Transient Oscillography - The Power of CTO	Sal Cardella – AMETEK
5:00 PM	Day 2 Closeout – Adjourn	<i>Damir Novosel, Yong Fu</i>

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Day 3 - Friday, March 29, 2019

Time	Item	Presenter
7:30 AM	Registration & Refreshments Safety and Emergency Response	Davis Erwin – PG&E
7:55 AM	Introduction & Greetings	Yong Fu, Davis Erwin, and Damir Novosel
*8:00 AM	Modernizing the Grid - IEEE PES Initiatives	D. Novosel – IEEE PES
*8:25 AM	Grid Modernization Initiatives at ISA	Ramon Leon Candela – ISA Columbia
*8:50 AM	Visualizing Incipient Faults Using Traveling Waves	David Whitehead – SEL
9:15 AM	Distance Protection Immune to Power System Oscillation for Power Line	Xinzhou Dong – Tsinghua University
9:40 AM	The Road Ahead - Autonomous Power Grid	Vahid Madani
10:00 AM	Break <i>Session Coordinators:</i>	<i>Smith, Suzette -PG&E, Patrick Sorrells - SMUD</i>
10:15 AM	Panel Session Integrated Planning and Modeling Moderator: Chase Sun – PG&E	Dan Gabel – ComEd John Boudreaux – Entergy Tom Bialek – SDG&E Gordon Kawaley – BPA
11:50 AM	The Power of Energy Changes Lives	Ruomei Li – CSEE
12:00 Noon	Lunch <i>Session Coordinators:</i>	<i>Ronnie Lau – PG&E</i>
1:00 PM	Panel Session Modern Protection and Control Solutions Moderator: Eric Udren – Quanta	Alexander Apostolov – Omicron Rich Hunt – GE Ralph Mackiewicz – SISCO Galina Antonova – ABB
2:30 PM	Wide-Area Backup Protection Concept	Eric Udren – Quanta Technology
2:45 PM	Break <i>Session Coordinators:</i>	<i>Carmen Contreras – PG&E</i>
2:55 PM	EMP Hardening/Shielding of P&C and IEC/IEEE Synchrophasor Standards	Mark Adamiak
3:25 PM	Expanding the Clearance Window to Support Construction and Maintenance: A Case Study	Chifong Thomas – Smart Wire
3:45 PM	Wrap-up / Topics for Future Events -	<i>Davis Erwin , Damir Novosel, Yong Fu</i>
4:00 PM	Adjourn	

* Keynote Speaker