



# Industry Conference

## November 6, 2020

INDUSTRY CONFERENCE  
*Friday, November 6, 2020 – US Eastern Time*  
 CURENT – via ZOOM: <https://tennessee.zoom.us/j/98587306980>  
 Password: 11062020  
 All sessions – Q&A

10:30-10:45	<b>Check-in</b>
10:45-11:00	<b>Welcome and Introduction</b> - Kevin Tomsovic, Center Director
11:00-12:00	<b>Invited Speakers Presentations</b>
11:00-11:30	Dr. Danielle Merfeld, VP and CTO, GE Renewable Energy, “Advances in Wind Technology ... enabling the future of high penetration RE”
11:30-12:00	Mr. Patrick Panciatici, Scientific Advisor, Réseau de Transport d' Electricité (RTE), France, “(R)evolution of Power Systems”
12:00-13:00	<b>Student Papers/Posters – Session 1</b> (10 presentations and Q&A) <b>Session Chair:</b> Kai Sun, Associate Professor, UTK <b>Presentations:</b> <ol style="list-style-type: none"> <li>1. Bilgehan Donmez, NEU, <i>A Parallel Framework for Robust State Estimation Using Node-Breaker Substation Models</i></li> <li>2. Ramtin Khalili, NEU, <i>Detection of Errors in Three-Phase Line Models Using Synchronized Phasor Measurements</i></li> <li>3. Yang Liu, UTK, <i>Solving Power System Differential Algebraic Equations Using Differential Transformation</i></li> <li>4. Aleksandar Saric, Tufts, <i>Multi-agent Approach to Multi-area Power System State Estimation Using the Gradient Tracking</i></li> <li>5. Abdul Shafae Mohammed, TU, <i>A PSO Based Control Strategy for Combined Emission Economic Dispatch with Integrated Renewables</i></li> <li>6. Tianwei Xia, UTK, <i>Extended Prony Analysis on Power System Oscillation Under a Near-Resonance Condition</i></li> <li>7. Samaneh Morovati, UTK, <i>Safety Verification for Power Systems using the Handelman Representation</i></li> <li>8. Stavros Konstantinopoulos, RPI, <i>Dynamic Active Power Control in Type-3 Wind Turbines for Transient Stability Enhancement</i></li> <li>9. Wenjie Han, Tufts, <i>Koopman Model Predictive Control-based Power System Stabilizer Design</i></li> <li>10. Hantao Cui, UTK, <i>Hybrid Symbolic-Numeric Framework for Power System Modeling and Simulation</i></li> </ol>
13:00-13:30	Break
13:30-15:00	<b>Invited Speakers Presentations</b>
13:30-14:00	Dr. Wendy Zhang, Supervisor of Transmission Planning, PG&E, “Use Dual Function Electric Energy Storage as non-wire solution to resolve system reliability issues (thermal overloads)-Oakland Clean Energy Initiative Case Study”

14:00-14:30	Dr. Val Miftakhov, Founder & CEO ZeroAvia, “Making Aviation Sustainable - 100-seat Zero Emission Jet by 2030”
14:30-15:00	Dr. Isik Kizilyalli, Associate Director for Technology and Program Director, ARPA-E, “Electrifying Innovation: Materials to Systems”
15:00–15:30	Break
15:30–16:30	<p><b>Student Papers/Posters – Session 2</b> (10 presentations and Q&amp;A)  <b>Session Chair:</b> Kevin Bai, Associate Professor, UTK  <b>Presentations:</b></p> <ol style="list-style-type: none"> <li>1. Chengwen Zhang, UTK, <i>Adaptive Damping Control for Three Major Utilities: Hardware-in-the-loop Test</i></li> <li>2. Qiwei Zhang, UTK, <i>Market-Level Defense Against FDIA and a New LMP-Disguising Attack Strategy in Real-Time Market Operations</i></li> <li>3. Adedasola A. Ademola, UTK, <i>A Multi-stage Approach Combining Physics-Based and Machine Learning Methods to Convert DC Power Flow to AC Power Flow</i></li> <li>4. Jin Young Lee, UTK, <i>Detecting False Data Injection Attack Using Enhanced Forecasting Method</i></li> <li>5. Shuyao Wang, UTK, <i>Power Emulator of Variable Speed Drive with Grid Frequency Support in Multi-Converter Based Power Grid Emulation System</i></li> <li>6. Jiahao Niu, UTK, <i>Development of MW-Class Reconfigurable Load Emulator</i></li> <li>7. Liang Qiao, UTK, <i>Online Junction Temperature Monitoring for SiC MOSFETs Using Turn-On Delay Time</i></li> <li>8. Xingxuan Huang, UTK, <i>A Test Scheme for the Comprehensive Qualification of MMC Submodule Based on 10 kV SiC MOSFETs under High dv/dt</i></li> <li>9. Liyan Zhu, UTK, <i>A Current-fed Three-port DC/DC Converter for Integration of On-board Charger and Auxiliary Power Module in EV</i></li> <li>10. Jared Walden, UTK, <i>Packaging a Top-cooled 650V/150A GaN Power Module with Insulated Thermal Pads and Gate-Drive Circuit</i></li> </ol>
16:30-17:30	<p><b>Industry and Student Panel</b> (Industry panelists answer questions from students)  <b>Industry Panelists:</b></p> <ul style="list-style-type: none"> <li>• Dr. Shengyi Liu, Technical Fellow &amp; Chief Architect of Platform Subsystems, Boeing Research &amp; Technology</li> <li>• Dr. David A. Schoenwald, Principal Member Technical Staff, Sandia National Laboratories</li> <li>• Dr. Tao Xia, Consulting Engineer, Dominion Power</li> <li>• Dr. Slava Maslennikov, Technical Manager, ISO New England</li> </ul> <p><b>Student Moderators:</b></p> <ul style="list-style-type: none"> <li>• Marcelo de Castro Fernandes, RPI</li> <li>• Jillian Ruff, UTK</li> </ul>
17:30	<b>Adjourn</b>

**ZOOM information:**

- Join from PC, Mac, Linux, iOS or Android: <https://tennessee.zoom.us/j/98587306980>  
Password: 11062020
- Or iPhone one-tap (US Toll): +13017158592,98587306980# or +13126266799,98587306980#
- Or Telephone:  
Dial:  
+1 301 715 8592 (US Toll)  
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Meeting ID: 985 8730 6980

International numbers available: <https://tennessee.zoom.us/j/98587306980>

- Or an H.323/SIP room system:  
H.323: 162.255.37.11 (US West) or 162.255.36.11 (US East)  
Meeting ID: 985 8730 6980  
Password: 11062020
- SIP: [98587306980@zoomcrc.com](mailto:98587306980@zoomcrc.com)  
Password: 11062020

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