


Time	Tutorial Sessions Monday, April 8	
8:00	Registration / Breakfast	
	Industrial Systems	T&D, Generation Systems
9:00	<p><b>Application of IEEE 1584-2018 and HV Arc Flash in ETAP</b> Essentials of Arc Flash Analysis (LV to HV)</p> <ul style="list-style-type: none"> <li>Applying IEEE 1584-2018 Standard</li> <li>AC/DC arc flash hazard assessment &amp; prevention</li> <li>ArcFault™ HV arc flash per OSHA compliance</li> </ul>	<p><b>Grid Code Compliance</b> ABC's of Generation Impact Studies</p> <ul style="list-style-type: none"> <li>Technical requirements for integration of renewables</li> <li>Interconnection study methodologies</li> <li>Feeder hosting capacity assessment</li> <li>Screening &amp; impact analysis of distributed generation</li> <li>DER with smart inverter applications</li> </ul>
10:30	Break / Technology Exhibition	
11:00	<p><b>Protection &amp; Coordination</b> A Systematic Approach for Performing PDC Studies</p> <ul style="list-style-type: none"> <li>Easily determine zones of protection and coordination</li> <li>Effectively conduct studies and validate protective device settings</li> <li>Reduce months of work to a few hours by automatic evaluations</li> <li>Application of rule books to standardize design</li> </ul>	<p><b>Distribution Network Analysis</b> Design, Evaluate, Optimize &amp; Automate</p> <p>Learn about long-range planning &amp; optimization tools and their applications with respect to solving problems in an integrated Transmission and Distribution power system model.</p>
12:30	Lunch	
1:30	<p><b>Unified Protection &amp; Dynamic Stability</b> Bridge Transient &amp; Protection Studies</p> <ul style="list-style-type: none"> <li>Study the interdependency between system dynamics and relay actions</li> <li>Tune relay settings to act properly during transient events</li> <li>Design and test remedial protection schemes</li> <li>Evaluate overcurrent and impedance relays during power swings</li> <li>Study generator protection during loss of excitation</li> </ul>	<p><b>Advanced Distribution Grid Management</b> Integrated Model-Based SCADA, DMS &amp; OMS</p> <p>Learn about the features, capabilities and benefits of an integrated ADMS built on the scalable and modular ETAP model-driven platform. Improve safety, efficiency and quality of service by making GIS data work for you in the field.</p>
3:00	Break / Technology Exhibition	
3:30	<p><b>Transient Stability &amp; Electromagnetics</b> Dynamic Stability &amp; EMT Analysis</p> <p>Tutorial on modeling, solution practices, and simulation of Dynamics Stability and Electromagnetic phenomena; including load shedding, frequency-dependent modeling, loss of excitation, critical fault clearing times, fast bus/load transfer, transformer inrush, transient recovery voltage (TRV), switching transients, insulation coordination, sub-synchronous resonance and more.</p>	<p><b>Renewable Energy</b> Design &amp; Sizing of Wind Turbine &amp; Solar Farms</p> <ul style="list-style-type: none"> <li>Characteristics of WTG and PV components</li> <li>Production estimation for feasibility studies</li> <li>Effects of intermittency of renewable energy</li> <li>Limitations imposed by utility Grid Code requirements</li> <li>Design and size commercial and utility scale systems</li> </ul>
5:00	Welcome Reception / Technology Exhibition	

Time	Technology Session Tuesday, April 9
8:00	Registration / Breakfast
	<p><b>Bridging the Gap - Modeling to Operation</b></p> <p>Welcome &amp; Introductions</p> <p>9:00 Opening Keynote: <b>Farrokh Shokooh</b>, ETAP President &amp; CEO</p> <p>Guest Speaker: <b>Steve Wozniak</b>, Apple Co-founder</p> <p>Hear this powerful, intriguing session and galvanize your thinking towards the next logical step in technology, and the role of smarter power systems in the digital transformation of industry.</p>
10:30	Break / Technology Exhibition
	<p><b>Collaborative Engineering Using Smart Management Tools</b>          Presentations &amp; Panel Discussions</p> <p>How to shorten a power study from months to weeks?          How to conduct system studies while considering other ongoing modifications and future upgrade projects?</p> <p>Discover how ETAP NetPM™ Network Project Modeling &amp; Management and etapAPP™ Field Data Collections &amp; Model Synchronization tools are creating seismic shifts in efficient project execution, allowing for parallel modeling and studies to drastically shorten project delivery timeframe from months to weeks.</p>
11:30	
1:00	Lunch
	<p><b>Leveraging Situational &amp; Operational Awareness to Achieve Real ROI</b>          Presentations &amp; Panel Discussions</p> <p>Join our panelists and speakers on their journey towards intelligent situational awareness through transforming information to actionable decisions to achieve real return on investment. Linking data and analytics across organizational boundaries via model-driven power system analysis &amp; real-time predictive operation solution to achieve fast, proactive decision-making.</p> <p>We will examine how model-driven approach and process help engineers and operators increase their understanding of systems in a cost-effective and repeatable environment by offering Situational Intelligent &amp; Operational Awareness to predict system behavior in response to actions and events while proactively recommending and implementing decisions to improve design and operations.</p>
2:00	
4:00	Technology Exhibition
6:00	<p><i>etap</i>  <i>Ball</i></p> <p><i>Dinner &amp; Entertainment</i></p>

Time		Solution Sessions Wednesday, April 10	
8:00		Breakfast	
		Industrial Systems	MicroGrid, Transportation Systems
9:00		<p><b>IEEE 3002.2 &amp; 3000.3 Standards</b> Recommended Practice for Conducting Load Flow &amp; Short Circuit Studies and Analysis of Industrial and Commercial Power Systems</p> <p>Presentation of the new IEEE 3002™ Dot Standards (formerly IEEE Brown Book) covering specific recommendations for conducting power system studies and analysis.</p> <ul style="list-style-type: none"> <li>• 3002.2 - Load Flow</li> <li>• 3002.3 - Short Circuit</li> </ul>	<p><b>MicroGrid Control</b> Deeper Insights, Faster Decisions, Real-Time Actions</p> <p>Best practice in a systematic process for designing, testing and deploying a microgrid controller with analytical insights to improve decision-making. Leverage distributed energy resources (DER) including solar, wind and energy storage systems for optimal system operation with ETAP μGrid™</p>
10:30		Break / Technology Exhibition	
11:00		<p><b>IEEE 3002.7 &amp; 3000.8 Standards</b> Recommended Practice for Conducting Motor Starting &amp; Harmonic Studies and Analysis of Industrial and Commercial Power Systems</p> <p>The focus of this presentation is for conducting Motor Starting and Harmonics studies and analysis based on the latest software technologies.</p> <ul style="list-style-type: none"> <li>• 3002.7 - Motor Starting</li> <li>• 3002.8 - Harmonics</li> </ul>	<p><b>Geospatial Network Modeling</b> Distribution Power Network Connectivity Model</p> <p>A network connectivity model is the most crucial step towards situational awareness and situational intelligence. View the latest techniques incorporated in ETAP that are making the process automated for model development and maintenance.</p>
12:30		Lunch	
1:30		<p><b>Load Shedding for Industrial Facilities</b> Economic Benefits of Faster-Than-Real-Time System</p> <p>ETAP ILS™ Intelligent Load Shedding solution continuously predicts and simultaneously responds to system disturbances as they happen. Case studies will demonstrate the realized savings of implementing model-based load shedding technology for mid-to-large industrial facilities including: mining, data centers manufacturing, oil &amp; gas offshore / onshore installations.</p>	<p><b>Railway Traction &amp; Airport Power Systems</b> From railways to the highways in the skies</p> <p>Gain better understanding of the challenges and corresponding ETAP solutions offered to airports and railways systems. Case studies will cover the practical application and benefits of eTraX™ Railway Traction Power as well as solutions used for design and operation of airport facilities.</p>
3:00		Break / Technology Exhibition	
3:30		<p><b>Ground Grid &amp; Electric Shock Protection</b> Fast, accurate design &amp; analysis of earthing mat</p> <p>Practical solutions on effective design and analysis of ground grid configuration and electric shock protection for high and low voltage electrical installations.</p> <ul style="list-style-type: none"> <li>• Optimal construction and sizing of rods &amp; conductors</li> <li>• IEEE 80 &amp; IEEE 81 Standards</li> <li>• Finite Element Method for accurate calculations of any grounding layout</li> <li>• Ground resistivity calculator from field measurements</li> <li>• Step &amp; touch potentials &amp; electric shock requirements</li> </ul>	<p><b>eProtect™</b> Relay Protection &amp; Asset Management System</p> <p>A behind the scenes preview of the Enterprise Asset and Protective Relay Settings Management Solution with integrated Advanced Fault Analysis System (AFAS™).</p>
5:00			