

Case Studies

7:00	Registration, Breakfast, Tech Expo & Solution Center
8:00	<p>Arc Flash Hazard Analysis <i>Application Cases & Practices using etap ArcSafety™ Solution</i> Schneider Electric, USA ETAP, USA</p>
8:50	<p>Grid Code Compliance & Verification <i>Case Study of Renewable Energy Impact Analysis</i> ETAP, USA</p>
9:30	Break, Tech Expo & Solution Center
10:30	<p>Geospatial Electrical Network System <i>Data Quality, Modeling Tools & Applications</i> BLPC, Barbados ETAP, USA</p>
11:20	<p>Data Centers: Design to Operation to Optimal Planning <i>Linking Data Center Design to Operational Requirements</i> Schneider Electric, USA ETAP, USA</p>
12:00	Lunch, Tech Expo & Solution Center
1:00	<p>The Case for Online Monitoring Using ETAP Real-Time™ in a Nuclear Power Plant <i>Improving Nuclear Safety, Regulatory Operability & Operational Cost with a Digital Twin</i> TVA, USA ETAP, USA</p>
1:50	<p>To Shed or not to Shed? <i>etap ILS™ Proactive Load Shedding System in Action</i> EPM, Colombia ETAP, USA</p>
2:30	Break, Tech Expo & Solution Center
3:30	<p>Field-Proven eSCADA, DMS, OMS Solutions <i>ADMS Deployment & Commissioning for Smart Grid</i> Enzen, India ETAP, MENA</p>
4:20	<p>Operator Training Simulator <i>Benefits & Utilization of a Model-Driven OTS</i> ETAP, USA</p>
5:00	Welcome Reception, Tech Expo & Solution Center

7:00	Registration, Breakfast, Tech Expo & Solution Center
8:00	 <p>Design to Real-Time Operation to Optimal Planning <i>Opening Keynote</i> Farrokh Shokooh, ETAP CEO</p>
8:30	<p>The Next Wave of Energy Innovations <i>Guest Speaker</i> Michio Kaku, Renowned Theoretical Physicis</p> 
9:30	Break, Tech Expo & Solution Center
10:30	<p>Model-Driven Intelligent Controls <i>Microgrid, Power Plant, & Load Shedding Controllers</i> Amman Minerals, Indonesia Dangote Oil Refinery, India ETAP, MENA</p>
11:15	<p>Co-Simulation Technologies <i>Challenges & Benefits of Multi-Energy Systems & Transients</i> Toshiba Plant Services, Japan AVEVA, USA ETAP, USA</p>
12:00	Lunch, Tech Expo & Solution Center
1:00	<p>Applied Real-Time Predictive Simulation <i>Model-Driven Power Management System Applications & Benefits</i> Equinor, Norway PBF, USA Unitech, Norway ETAP, USA</p>
2:00	<p>The Need for a Centralized Relay Asset Management System <i>Industry Challenges & Benefits of an Automated Protection Change Management System</i> PBF, USA ETAP, USA</p>
3:00	Break, Tech Expo & Solution Center
4:00	<p>Analysis of Railway Traction Power System with eTraX™ <i>AC & DC Modeling, Simulation, Protection, EMI</i> American Electrical Testing, USA Ineco, Spain ETAP, India ETAP, USA</p>
5:00	Welcome Reception, Tech Expo & Solution Center
6:30	<p><i>etap</i>  <i>Ball</i> <i>Dinner & Entertainment</i></p>

Tutorial Sessions

7:00	Registration, Breakfast, Tech Expo & Solution Center	
	Session A: Industrial Systems	Session B: T&D Systems
8:00	Arc Flash <i>Auto Evaluation & "Ease-of-Use" Analyzer Features</i> ETAP, USA	Volt/Var Optimization & Control <i>Distributed Energy Resource Management</i> TNB, Malaysia ETAP, USA
8:45	Protection & Selectivity <i>Fault Analysis & Protection Studies</i> ETAP, USA	Microgrid Controller <i>Model-Driven Design & Control</i> ETAP, USA
9:30	Break, Tech Expo & Solution Center	
10:30	Dynamic Protection <i>Integrated Dynamics, Protection & Control Simulation</i> Mangan, USA ETAP, USA	Power Plant Controller <i>WTG & PV, Edge and Plant Level Control</i> ETAP, USA
11:15	Low Voltage Electrical System Design <i>Accelerate System Design with an Integrated Solution</i> ETAP, USA	Feeder Hosting Capacity <i>PV, Smart Inverter Location & Planning</i> ETAP, USA
12:00	Lunch, Tech Expo & Solution Center	
1:00	DC Rail Traction Power <i>Design & Analysis</i> Arcadis, India ETAP, USA	Voltage Stability <i>Concepts, Assessment & Indices</i> ETAP, USA
1:45	Short Circuit Analysis <i>Compliance with the Latest Standards & Applications</i> Selecty, Italy ETAP Systems, Russia ETAP, USA	Advanced Fault Analysis System <i>Accurate Fault Identification & Location</i> ETAP, USA
2:30	Break, Tech Expo & Solution Center	
3:30	Time Series Power Flow Analysis <i>Quasi-Dynamic & Time Domain</i> ETAP, USA	Available Transfer Capability <i>Generation Adequacy Analysis</i> ETAP, USA
4:15	Energy Storage <i>Modeling, Simulation & Control</i> ETAP, USA	Asset Management – eProtect™ <i>Centralized Relay Database Management</i> ETAP, USA
5:00	End of Day 3 Tutorial Sessions	

Microgrid Controller for Energy Management

ETAP Training Center - 17 Goodyear, Irvine, California

ETAP 192

Microgrid Controller for Energy Management

Model-Driven Approach with Validation for Design & Operation Lifecycles

Day 4

Microgrid Fundamentals

- Role of Microgrids
- Requirements
- Challenges & Solutions

Network Modeling & Studies – Design Phase

- Renewable Energy Modeling including PV, Wind & Energy Storage
- Analyzing Dynamic & Steady-State Events & Disturbances
- Establishing Requirements for Microgrid Control to Support Business Objectives, Resilience & Clean Power

Microgrid Hardware & Communication Integration

- Device communications infrastructure
- Communication Protocol Configuration
- System redundancy deployment
- Communication to SCADA System

Data Acquisition & Microgrid HMI Deployment

- HMI Designer and template utilizations
- SCADA Server deployment
- Web Server deployment

Control Logic Validation – Design Phase

- Defining objectives for controller logic
- User Defined Logic (UDL) software interface
- UDL parameterization
- UDL Validation for dynamic & steady-state operation

Microgrid Control Integration – Maximize Performance Value

- ETAP Microgrid Controller Architecture
- Preparing ETAP Microgrid Model for System Integration
- Deploying UDL to controller hardware
- Utilizing Hardware-in-the-loop (HIL) or Software-in-the-loop (SIL) to validate controller hardware operation

Day 5

Network Operating Center - SCADA Applications

- Alarms & Events
- Data Archiving & Historical Applications
- User Reports

Network Operating Center - Advanced Applications

- Prediction of controller response to various system changes
- What-If Analysis & Predictive Simulation
- Forensic Analysis
- Integration with ADMS System
- Energy Demand Monitoring

The purpose of this introductory 2-day hands-on workshop is to develop an understanding of ETAP Microgrid Controller and its journey from Power System Design, Validation to Deployment & System Integration.

This hands-on training will help you understand microgrids, best practices for their operation and control as well as energy management principles applied to the microgrids. This workshop is divided into three main microgrid topics, which will help engineers and scientists to gain the skills and required confidence to meet their organization's needs, define microgrid specifications and to position themselves for their job responsibilities.

Seating is limited – almost fully booked