SOUTHEASTERN METER SCHOOL

Southeastern Meter School & Conference

The Hotel at Auburn University
and Dixon Conference Center

Auburn, Alabama

March 16th - 19th, 2026

Sponsored by the

Southeastern Meter Technical Association

In Cooperation with

Utility TechED | UTILITY TECHNOLOGY EDUCATION

Southeastern Meter School & Conference Class Schedule

Monday, March 16th

Time	Module 100	Module 200	Module 300	Module 400	Module 500
10:00 - 1:00	Registration				
1:00 - 1:30	General Session				
1:30 - 2:30	*Talent & Opportunities to Enhance Workforce Skills*				
2:30 - 3:00	Networking and Refreshment Break				
3:00 - 4:30	Grounding & Bonding Meter Sockets	Power Theory	Grounding & Bonding Meter Sockets	DLMS in North America: Current Status and Progress	
4:30 - 6:00	Exhibit Hall / Hospitality				

Tuesday, March 17th

Time	Module 100	Module 200	Module 300	Module 400	Module 500 A&B	
8:30 - 10:00	Electrical Fundamentals	Principles & Applications of Polyphase Metering	Fundamentals of Single & PolyPhase Field Meter Testing	Navigating the Complexities and Maximizing the Value of AMI 2.0 - Utility Panel	Meter Programming Aclara	Meter Programming Sensus
10:00 - 10:30	Networking and Refreshment Break in Exhibit Hall					
10:30 - 12:00	Single Phase Metering Theory	Demand Metering / TOU & EV Rates	Instrument Transformer Testing	Cellular Communications for AMI Data Managing Meter Alarms	Meter Programming Aclara Continued	Meter Programming Sensus Continued
12:00 - 1:00	Lunch Provided					
1:00 - 2:00	Meter Sockets - Meter Mounting Devices	Applications of Multifunction Metering	Testing & Verification of Meter Installation Using Customer Load	Smart Meter Data for More Reliable Grid Models and Asset Management	Meter Programming Honeywell	
2:00 - 2:30	Networking and Refreshment Break in Exhibit Hall					
2:30 - 4:00	Service Types & Meter Forms	Grounding - Critical & Simple Principles	Testing & Verification of Meter Installation Using Customer Load Continued	Flexible Load Management: AMI is the Foundation AMI Data with Cloud and AI-Driven Grid Analytics	Meter Programming Honeywell Continued	
4:00 - 5:30	Exhibit Hall / Hospitality					

Southeastern Meter School & Conference Class Schedule

Wednesday, March 18th

Time	Module 100	Module 200	Module 300	Module 400	Module 500
8:30 - 10:00	Meter Installation Wiring	Application & Sizing of Current Transformers	Meter Test Equipment Training Radian Research	Elevating AMI as a Strategic Intelligence Layer Medium Voltage Fault Detection	Meter Programming Itron
10:00 - 10:30	Networking and Refreshment Break in Exhibit Hall				
10:30 - 12:00	Instrument Transformer Fundamentals	Intro to Vector Diagrams & Troubleshooting with Phasors	Revenue Protection via Meter Site Analysis Radian Research	AMI 2.0: How to Analyze and Justify Upgrading Fault Detection: From Reactive to Proactive with Smart Sensors	Meter Programming Itron Continued
12:00 - 1:00	Lunch Provided				
1:00 - 2:00	Distribution Transformer Connections	Power Quality in Metering	Meter Test Equipment Training TESCO	Southern Company's AI-Driven Meter Intelligence Hub	Meter Programming Landis+Gyr
2:00 - 2:15	Networking and Refreshment Break				
2:15 - 3:15	Meter Socket Check Out & Safety	DER Metering Applications	Meter Test Equipment Training TESCO Continued	Forward Looking - Grid Anomaly Detection Using Artificial Intelligence (AI)	Meter Programming Landis+Gyr Continued
3:15 - 3:30	Networking and Refreshment Break				
3:30 - 4:30	What is Demand Metering?	Reactive, KVA and 4 Quadrant Metering	Site Inspections: Looking for Dangerous Installations and Incorrect Billing	Using AI for the Automation of Remote Substation Inspections	Meter Programming Landis+Gyr Continued
5:00 - 6:00	Annual Dinner in Grand Ballrom				
6:00 - 9:00	Casino Royale in Grand Ballroom				

Thursday, March 19th

Time	Module 100	Module 200	Module 300	Module 400	Module 500
8:30 - 9:30	Code Changes and Their Implications to Metering				
9:30 - 9:45	Networking and Refreshment Break				
9:45 - 11:15	Revenue Protection: Awareness, Tools & Data				
11:15 - 11:30	Closing Session				

Knowledge is Power

Opening Session

Talent & Opportunities to Enhance Workforce Skills
Robbie Young, *Snapping Shoals EMC*

Module 100
Fundamental Metering

Metering Math & Electrical Fundamentals
Instructor: Mike Chirico, *Covington EC*
Review of basic meter math skills. This would include fractions, percentages, multipliers, ratios, algebra and how they apply to metering applications. Learn the principles of electricity, AC and DC circuit theory including ohms law and circuit components, along with current and voltage laws.

Single Phase Meter Theory
Instructor: Bryan Seal, *Wasion Americas*
Explanation of the mechanics and electrical theory of single phase meters. Discussion of internal meter components, and how they interact to make the meter register properly. Session will include how a solid state meter works along with the application of the meter in the electric service.

Meter Sockets - Meter Mounting Devices
Instructor: Daniel Murray, *The Durham Company*
Course is designed to teach the fundamental characteristics of meter sockets. A variety of sockets will be used to demonstrate construction, features, types, and application in electric service.

Service Types & Form Numbers
Instructor: Tim Hope, *Alabama Power*
Focuses on service voltages and how they relate to meter selection. What is a meter "Form" and how does it relate to the type of service? Learn what does the nameplate information tell you. Overview of how meters, sockets and transformers are wired together? Although concentrating on single phase services, polyphase meter forms are also discussed.

Meter Installation Wiring
Instructor: Keith Hardt, *Pungo Engineering*
Review of typical metering installations with emphasis on the ANSI meter wiring diagrams. A discussion of Blondel vs Non-Blondel compliant meter measurements. Also a discussion on some common metering installation errors.

Instrument Transformers Fundamentals
Instructor: Andrew Peterson, *ABB*
Course is designed to teach the fundamental characteristics of Current and Potential Transformers as they are applied to electric metering. Topics include ratio, rating factor, BIL, burden, polarity and ANSI accuracy class.

Distribution Transformer Connections
Instructor: Scott Sligh, *Gresco Utility Solutions*
Lecture on the understanding of distribution transformer connections and how to make them. A necessity to a well rounded meter person.

Meter Socket Check Out & Safety
Instructor: Bobby Freeman, *Alabama Power - Retired*
The check out procedures for self-contained meter sockets. Learn how to avoid injury and equipment damage by properly verifying service types and wiring correctness. Learn how to properly determine service voltage, the correct meter socket for the intended service and if a meter socket is safe to energize.

Demand Metering
Instructor: Mark Bruss, *Itron*
Learn about demand metering to gain a better understanding on how this value is calculated and applied to the billing structure.

Module 200
Advanced Metering

Power Theory
Instructor: Paul Millan, *Southern California Edison - Retired*
An expansion of the popular course on the basics of electricity – volts, amps, power factor and all kinds of good stuff. Definition and applications of power triangle, KW, KVA, power factor, reactive power, and demand.

Principles & Applications of Polyphase Metering
Instructor: Michael Albritton, *SEL*
Lecture on polyphase metering. Why does the customer need this type of metering? Evolution of polyphase metering. A review of delta and wye metering applications, 2,2-1/2 and 3 element meter selection, "multi-form" meters and Blondel's Theorem. Polyphase meter wiring connections are discussed.

Demand Metering / Time of Use & EV Metering Rates
Instructor: Sy Schreiner, *Alabama Power*
Lecture on what "demand" is and why do utilities use demand metering. It will cover different types of demand metering and technologies. This class will also cover "Time of Use" (TOU) metering and related technologies. It will address questions on why we use TOU metering and its benefits.

Applications of Multi-Function Metering
Instructor: Diego Barquero, *Landis+Gyr*
Session will cover the proper selection and application of the multi-function meter. Review of the considerations for the type of utility service.

Grounding - Critical & Simple Principles
Instructor: Dale Prashad, *Aclara*
This session will cover why and the safety aspects of grounding. Topics include touch and step potential, equipment protection along with meter grounding.

Applications & Sizing of Current Transformers
Instructors: Frank Lopez, Shaun Starnes, *GE Vernova*
Learn the procedure to determine the proper current transformer size for an installation. Review the application of rating factors. Multi-Range current transformers will be covered in this session. Review of primary metering installations.

DER Metering Applications
Instructor: Keith Hardt, *Pungo Engineering*
Learn about installing meters when the source is from alternative energy. This session covers the metering and protection requirements for the interconnection of utility scale renewable generation to utility electric distribution systems. Discussion topics will include the utility interconnection process, metering, protection and safety considerations and components used.

Intro to Vector Diagrams & Troubleshooting with Phasors
Instructor: Dale Prashad, *Aclara*
An introduction to the concept of vector / phasor diagrams. Learn about phasor diagrams – what they represent, how they are developed, and how they may be used as effective diagnostic tools. Working with phasor information provided by new solid state electricity meters to troubleshoot new and existing metering installations. Includes some interactive exercises diagnosing miswired meters.

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Power Quality in Metering
Instructor: Steve Hudson, *Radian Research*
This session covers power quality issues including harmonics, sags, swells, transients, and frequency variations, and discusses how each may affect metering. Harmonics is covered in greater detail as it is a prevalent issue in today's world.

Reactive, KVA and 4 Quadrant Metering
Instructor: Nate Dunn, *Schneider Electric*
Explore reactive metering concepts and terminology. Look at why reactive measurements are important, their impact on system losses, equipment sizing, and cost of service. Review the mathematical derivation of reactive quantities. Explanation of 4 Quadrant metering.

Module 300
Meter Testing, Safety & Revenue Protection

Grounding and Bonding of Meter Enclosures
Instructor: TBD, *Georgia Power*
Lecture of the proper and safe way to ground and bond a meter enclosure. National Electric Code requirements will be discussed.

Fundamentals of Single & Polyphase Field Meter Testing
Instructor: TBD, *Georgia Power*
Discussion on the Basic Theory, Philosophy, and ANSI Standards necessary to complete single phase and three phase meter testing. Includes details of phantom load testing and customer load testing.

Instrument Transformer Testing
Instructor: Tom Lawton, *TESCO*
The importance of instrument transformer tests is often underestimated. Current and voltage transformers for metering purposes must have a high degree of accuracy to ensure precise billing. Course is designed to teach all aspects of testing instrument transformers.

Testing and Verification of Meter Installation Using Customer Load
Instructors: TBD, *Georgia Power*
Demonstration on how to properly check your overall meter installation and be assured of accurate billing. Class will include vector analysis, voltage measurement, CT burden verification and verifying CT ratios using latest test equipment and classroom discussion.

Radian Research - Meter Test Equipment Training
Instructors: Steve Hudson, Ryan Moffitt, *Radian Research*
Verification of electrical meter sites is crucial to ensure proper metering and billing for your utility. This class covers the hardware and software used to perform full meter site inspections for Forms 9S, 5S/45S, 4S, and 3S meters on a live test board. Tests include waveform and vector diagram review, harmonic analysis, customer and phantom load testing, CT burden plus ratio testing, and CT burden measurement. We will review common meter site issues that reduce billing along with methods to identify and correct them, including real stories from the field. The training also provides a comprehensive overview of shop, field, and lab equipment used to test electric revenue meters, including the 4000-series test boards, Powermaster 6618A field analyzer with 335V load box, and RW-3X site analyzer. Lastly the class will cover reference standards and their role in keeping revenue meters and the test equipment traceable to NIST.

Revenue Protection via Meter Site Analysis
Instructor: Chris Mullins, *Radian Research*
This session will cover testing of Transformer Rated Metering Systems in the field with an emphasis on revenue protection. Learn about the WHY of revenue protection.

TESCO - Meter Test Equipment Training
Instructor: Vernon White, *TESCO*
The session will be a hands on class that will include the importance of performing a full analysis while at your transformer rated meter site with hands on training, validation of both your instrument transformers and meters in the meter shop prior to field deployment of these devices including hands on training on how to perform some of these tests, data analysis and troubleshooting along with case studies and real-world applications.

Site Inspections: Looking for Dangerous Installations and Incorrect Billing
Instructor: Tom Lawton, *TESCO*
Meter testing is often viewed only through the lens of accuracy, but site inspections reveal a much broader responsibility. Dangerous installations, wiring errors, and incorrect setups can compromise both safety and billing integrity. This presentation explores how utilities can expand their testing programs beyond meter accuracy to identify hazards and protect revenue. The session emphasizes that testing a meter alone is not enough. Inspecting the entire installation and surrounding system is essential, especially at higher-revenue commercial and industrial sites. Attendees will learn how to spot dangerous conditions, verify compliance, and use statistical test plans to maximize resources while ensuring customer fairness. The importance of traceability, calibration to NIST standards, and accurate data tracking across the meter's life cycle will also be highlighted.

Module 400
Smart Grid, AMI and Emerging Technology

DLMS/COSEM in North America: Current Status and Progress
Instructor: Jim Carr, *Wasion Americas*
What exactly is DLMS/COSEM (Device Language Message Specification / Comprehensive Semantic Model for Energy management)? Historically, utilities have relied on proprietary solutions or regional standards, such as ANSI C12.19 utility tables in the US, to model metering data and enable communication. Some of these solutions for data exchange were also heavily reliant on the lower layer media that transported them. However, as newer technologies emerge and utility demands become more complex, these legacy standards can limit flexibility, scalability, transport media and vendor choice. DLMS/COSEM offers an alternative: an international, open standard designed to support a wide ecosystem of interoperable solutions. Unlike proprietary approaches, DLMS/COSEM supports multivendor compatibility, reduces lock-in and lays the foundation for smarter, more adaptive grids.

Navigating the Complexities and Maximizing the Value of AMI 2.0: Lessons from Utility Implementations and the Path Forward
Instructors: Dave Elve, *VASS Solutions;* Dale Anderson, *Blue Ridge Mountain EMC;* Hans Galm, *Coweta-Fayette EMC;* Todd Hubbard, *Jackson EMC*
Implementing Advanced Metering Infrastructure (AMI) 2.0 presents a complex, multi-stage challenge for utilities, requiring major overhauls in technology, business processes, and customer engagement. Real-world experiences reveal that success depends on a strategic, multi-faceted approach that addresses significant technical, financial, and organizational hurdles. The utility panel will discuss real examples of utility evaluations of AMI deployments with issues encountered and lessons learned.

Cellular Communications for AMI Data
Instructor: Russell Johnson, *Honeywell*
This session provides a brief overview of how utilities can leverage cellular communications to augment or replace their existing Advanced Metering Infrastructure (AMI). It will explore the benefits and limitations of cellular communications comparing them with other AMI communication technologies. Students will learn about the historical challenges that limited cellular adoption, the current state of the industry, and future trends shaping its role in utility operations.

Managing Meter Alarms
Instructor: Tabitha Washer, *Georgia Power*
Learn the essentials of monitoring, interpreting, and resolving meter alarms to ensure operational reliability and safety. This class covers alarm types, troubleshooting steps, and best practices for minimizing downtime and maintaining the system.

Smart Meter Data for More Reliable Grid Models and Asset Management
Instructors: Glenn Emelko, *Hubbell;* Greg Bradley, *Wiregrass Electric Cooperative*
The accuracy of distribution system models is critical for effective planning, operations, and reliability in modern electric utilities. This presentation will demonstrate how utilities can leverage advanced meter data analytics to automatically correct topology errors, optimize transformer loading, and enable precision load monitoring. The session will showcase methods for using AMI and smart meter data to identify and correct meter-transformer, meter-feeder, and meter-phase connectivity errors—challenges that traditionally require extensive manual field validation. Additionally, we will discuss transformer loading analysis,

incorporating real and reactive power, voltage, and impedance monitoring, to help utilities detect overloading and underutilization conditions in near real-time.

Flexible Load Management: AMI is the Foundation
Instructor: Christopher Patton, *Landis+Gyr*
This session will explore how utilities can integrate Distributed Energy Resource Management Systems (DERMS), flexible load management, and advanced load control by utilizing Advanced Metering Infrastructure (AMI) as the foundation. Will include present real-world case studies demonstrating how AMI data and communications enable utilities to optimize grid operations, manage distributed resources, and implement demand response programs. Students will learn about the latest advancements in AMI-enabled DERMS, strategies for flexible load management, and best practices for deploying load control solutions that enhance reliability, efficiency, and customer engagement.

Combining Next Generation AMI Data with Cloud and AI-driven Grid Analytics
Instructor: Marcelo Sandoval, *Landis+Gyr*
This session will explore how AMI data, combined with cloud- and AI-driven grid analytics, empowers utilities to gain deeper insights into grid operations. The session will cover key capabilities such as meter-to-transformer mapping, pattern detection for theft identification, AMI-based MAIFI reporting, capacity contribution analysis, transformer loading performance, and EV detection. The session will highlight lessons learned from recent deployments, showing how AMI data, combined with cloud analytics, delivers actionable insights that improve revenue recovery, model validation, voltage monitoring, and overall grid reliability.

Beyond the Meter: Elevating AMI as a Strategic Intelligence Layer
Instructor: Josh Peeple, *NRTC*
This session shifts thinking about AMI systems from a basic data collection tool to a strategic intelligence asset. Students will discover how advanced metering infrastructure can drive predictive analytics, enable customer segmentation, and guide asset prioritization. By the end of the session, AMI will be understood as a core component of enterprise-wide planning and smarter decision-making.

Medium Voltage Fault Detection
Instructor: Derl Rhoades, *Sensus*
This session will discuss the benefits of Medium Voltage Fault and how new metering will give a utility the ability to locate faults without any additional hardware other than the electric meter. As customers expectations grow and the continuing pressure to manage coats, utilities are looking for ways to become more efficient.

AMI 2.0: How to Analyze and Justify Upgrading
Instructor: Tom Lawton, *TESCO*
The shift toward AMI 2.0 represents more than just a meter replacement—it is an opportunity to reimagine the role of metering in utility operations and customer engagement. As utilities evaluate whether and when to upgrade, a clear framework for analysis and justification is essential. This session will begin with the technical drivers for AMI 2.0. Participants will learn how next-generation systems build on existing deployments by leveraging open standards, interoperable communications, and advanced edge analytics. These improvements reduce vendor lock-in, streamline integration across diverse platforms, and create flexibility for emerging use cases such as distributed energy resources, electric vehicles, and real-time load management.

Modern Fault Detection: From Reactive to Proactive with Smart Sensors
Instructor: Matthew Valenti, *Zero Edge*
Traditional fault detection methods rely on breaker trips, SCADA alarms, or customer calls—only alerting utilities after power has already been lost. This session explores how grid-edge smart sensors are transforming outage response by enabling real-time fault detection, advanced power quality monitoring, and proactive alerts.

Southern Company's AI-Driven Meter Intelligence Hub
Instructor: Joyce Solomon, *Alabama Power*
Learn about the Southern Company Meter Intelligence Hub. The Hub is an integrated, cloud-native analytics platform that fuses machine learning, AI agents, and descriptive analytics to extract maximum value from AMI data. By integrating data from millions of meters and layering Generative AI capabilities, the Hub transforms raw data into actionable insights – enhancing operational efficiency, grid reliability, and customer engagement.

Forward Looking - Grid Anomaly Detection Using Artificial Intelligence (AI)
Instructor: Bryan Seal, *Wasion Americas*
This session will cover the intersection of high-speed, high-resolution meter data and Al. The concepts of signature analysis and ability of AI to create statistics and recognize patterns of voltage, current, load and how each of these define various loads or issues with an electrical grid will be discussed. Also, how can this technology be utilized to understand and solve utility and customer issues in a proactive manner.

Using AI for the Automation of Remote Substation Inspections
Instructor: Richard Harada, *Systems With Intelligence*
This session will discuss how a large US utility was able to automate remote inspections of transformers and substations. The utility installed thermal and visual sensors to monitor key pieces of equipment at their remote sites. Students will learn about the capabilities of IoT based thermal and visual sensors and how AI is to process the images and data. Attendees will hear from the utility how this system was used and the benefits they achieved from automating their inspection process.

Module 500
Meter Programming

Creating and editing of manufacturers metering software. Students can bring their own laptops.

Honeywell - Meter Programming
Instructor: Russell Johnson, *Honeywell*

Sensus - Meter Programming
Instructor: Sean McCarty, *Sensus*

Aclara - Meter Programming
Instructor: Dale Prashad, *Aclara*

Itron - Meter Programming
Instructor: Mark Bruss, *Itron*

Landis+Gyr - Meter Programming
Instructor: Diego Barquero, *Landis+Gyr*

Closing Session

Code Changes and Their Implications to Metering
Instructor: Jack Hackathorn, *Milbank*
This session will be a comprehensive look at code changes and how they will affect metering.

Revenue Protection: Awareness, Tools & Data
Instructors: Lee Holovnia, *Inner-Tite Corporation;* Charlie Cook, *Alabama Power*
This session includes information about collections, current diversion, meter tampering, investigation techniques, the influence of AMI and Remote Disconnect Technology on utility customers. Also, real-world examples of these activities that include a display of items taken from the field. The program discusses various tools, including Data Analytics, and best practices for a strong revenue protection program. It is designed to raise awareness and improve safety for utility company employees working in or outside of the Revenue Protection field.