Feb. 12-13, 2026 E-Week Seminar Descriptions

Introductory = New to the engineering field, with little or no experience such as students.
Intermediate = A few years of experience in the field of engineering with a desire to build on it.
Advanced = A "seasoned" engineering professional with many years of experience.

T = Thursday Seminar and **F =** Friday Seminar

Note: Some of these seminars might have been offered at other locations. It is your responsibility to determine what seminars you want to attend.

BRIDGES:

T - Live Updates in Rebar Choices – Intermediate

By: Frank Gerace, PE; HDG Rebar Alliance - Geracefp@whyrust.com

The selection of the type of rebar used affects the ability of the bridge to meet the 75-year life. This presentation will provide an update on those choices. DOT's in the northeast are progressing bridge projects with the goal to provide 75- to-100-year life w/o major maintenance. That life is definitely achievable in high chloride environments with the proper selection of rebar type.

CIVIL:

T - Underground Utility Locate Theory Overview - Intermediate

By: Jim Flint; Eastcom Associates – jflint@eastcomassoc.com

This seminar will give an overview of electromagnetic locating basics as well as other technologies available for locating underground facilities. Discussion will include general understanding of frequencies, grounding techniques and practices to positively identify target lines. Regardless of what manufacturer used, this program will provide you with a better understanding of your equipment and give you tips for more accurate locations.

T - Advancing SCADA in Water and Wastewater – Intermediate

By: Tyler Miller; Metropolitan Industries, Inc – tmiller@metropolitanind.com

This presentation examines the evolution and future of Supervisory Control and Data Acquisition (SCADA) systems in the water and Wastewater utilities, focusing on resilient, secure, and integrated operations. Topics include SCADA communication basics, shift in protocols, And key cybersecurity challenges with real world case studies. Explore integrated platforms, breaking data silios, and the vision for the utility of the future.

T - Why Testing Protocol Matters – Water Quality Solutions for NJDEP/NYCDEP/NYSDEC Regulated Projects in 2025 – Intermediate-Advanced

By: Mallory Wright, PE; Advanced Drainage Systems - Mallory.wright@adspipe.com

NYSDEC recently updated both the Stormwater Design Manual, and the acceptable testing protocol (NJCAT) needed to certify manufactured devices for TSS and nutrient removal on projects required to meet standards of the Stormwater Construction Activities

Permit (GP-0-25-001). The presentation will be an overview on the previous testing protocol (2013) and how it differs from the new 2024 NJCAT testing protocol, which affords a more practical and repeatable methodology. Comparisons of the previous protocol and the new protocol will highlight the advancement of new technology for ultimately better removal of TSS and nutrients for highly sensitive watersheds such as the NYDEP watershed.

F - The Evolution for Storm Water Detention Systems – A Designer and Installers View – Intermediate
By: Frank Currivan; Goodflow Solutions; fcurrivan@goodflow.com & Pat Carraran, PE – pcarrara@pmpconsultinginc.com
Review and compare the evolution of stormwater detention systems from precast concrete to HDPE systems. The overview will take into account the designer and installers perspective.

F - Biosolids Management in New York and Biosolids PFAS Treatment Technologies – Intermediate
By: Tim Burns, PE; Brown and Caldwell - tburns@brwncald.com
Management of biosolids is a critical part of wastewater facility planning. The presence of PFAS has complicated management practices and rapidly altered established practices in some states. This seminar will discuss the regulatory landscape of biosolids management in New York State and the region, and PFAS treatment technologies currently in use and in development.

F - Rehabilitating Aging Stormwater Infrastructure with Large-Diameter HDPE Profile Wall Pipe – Intermediate
By: Greg Roscoe; Soleno – greg.roscoe@soleno.com
As aging stormwater infrastructure across the Northeast reaches the end of its service life, engineers are often limited to traditional concrete box culvert solutions. This presentation introduces large-diameter HDPE profile wall pipe—such as KustomFlo—as a locally manufactured alternative for sliplining and full replacement of storm sewer systems. Produced in Saratoga Springs, New York, KustomFlo pipe is available in diameters ranging from 24 inches up to 136 inches, offering exceptional flexibility for a wide range of rehabilitation and replacement projects. These custom-fabricated pipes provide durability, hydraulic efficiency, and design versatility for DOTs, municipalities, and consultants seeking cost-effective, long-term solutions. The session will include case studies, installation methods, and design considerations for specifying HDPE in large-diameter stormwater applications.

CONCRETE:

T - Corrosion of Embedded Steel Reinforcement in Hardened Concrete – Intermediate
By: Steve Moore, PE; Atlantic Testing Laboratories - smoore@atlantictesting.com and ***Dr. Christopher Kelson PhD, PG; Atlantic Testing Laboratories - ckelson@atlantictesting.com***
We discuss geochemical and physical causes and effects of the corrosion process, how to identify the signs, tests that can identify corrosion potential, and possible avenues for mitigation.

<u>T - Best Practices for Concrete Paving</u> – Introductory

By Heather Steffek; ACPA-NYS Chapter - hsteffek@pavement.com

When designing and constructing a concrete pavement, an ounce of prevention is worth a pound of cure. This seminar will go through common concrete pavement distresses and offer tips and tricks to avoid and/or repair these problem areas.

<u>F - Recycled Concrete Aggregate</u> – Intermediate

By: Nicholas Cifelli, PE; Heidelberg Materials - Nicholas.Cifelli@HeidelbergMaterials.com

Got concrete rubble? This seminar describes a pathway to turn it into usable aggregate for use in new concrete. We will discuss aggregate properties and tests, characteristics of RCA (Recycled Concrete Aggregate), supply chain considerations, and a real-life example.

<u>F - 23 Flavors of Cracked Concrete</u> – Intermediate

By: Bill Lyons; Euclid Chemical Company - wlyons@euclidchemical.com

Despite our best intentions and practices, we still get cracks in concrete. Why do we get them and how we can best prevent them will be discussed during the presentation.

ELECTRICAL:

<u>T - Campus Electrification as an Engineering Challenge: A Roadmap for Decarbonization and Infrastructure Resilience</u> – Intermediate

By: Lura Wade, PE, LEED AP, RCDD; SMRT Architects & Engineers - lwade@smrtinc.com

Campus-wide electrification represents one of the most complex challenges in higher education infrastructure today, with engineers asked to design and implement large-scale transitions from fossil-fueled assets to electric-based systems, all while maintaining reliability, resilience, and financial feasibility. This requires deep technical evaluation of distribution capacity, system integration, and long-term operational performance, especially as institutions face growing demands for cleaner energy and increasing pressure to reduce carbon emissions. This dynamic presentation will examine a five-step engineering framework toward the path to electrification. Featuring a successful project at the University of Maine, this session explores best engineering practices and creative solutions toward meaningful decarbonization, along with the analytical tools and technical design insights needed to lead the transition effectively and efficiently.

<u>T - Grounding System Design and Testing for Critical Facilities</u> - Intermediate

By: Chip Whitten; Lyncole XIT Grounding - Chip.whitten@lyncole.com

A ground system is critical for the protection, reliability, and performance of sensitive electronic equipment. This session will describe what constitutes an NEC compliant grounding system; also, methods of testing, including clamp-on ground resistance meters and the 3-point fall of potential test, with details on factors that may invalidate a test. Also discussed will be grounding's relationship to surge suppression and lightning protection.

T - Applications of Detection and Estimation Theory to Power System Small-Signal Stability Studies – Intermediate
By: Luke Dosiek, PhD; Union College - dosiekl@union.edu
This seminar details how phasor measurement unit (PMU) data may be used to assess the small-signal stability of a power system, even in the presence of rogue oscillations. A review of the system theory involved in small-signal modeling is given along with relevant detection and estimation theory. An overview of statistically efficient estimation algorithms is provided, along with examples using both simulation studies and the January 11, 2019, Eastern Interconnect oscillation event.

T - Mitigating Incremental Short Circuit Fault Levels in Electrical Systems – Intermediate
By: Jimmy Bou; G & W Electric – jbou@gwelec.com and Andrew Garcia; G & W Electric – angarcia@gwelec.com
Explore the causes and impacts of short circuit faults in power systems. In High reliability Environments, traditional protection falls short. This session introduces innovative solutions to enhance fault protection, improve safety, and System performance. It will help attendees understand how advanced devices reduce risk, boost reliability and support efficient infrastructure.

T - Transient Stability and Dynamic Studies of New York's Proposed Offshore Wind Farms – Intermediate
By: Thomas Ortmeyer; Clarkson University – tortmeye@clarkson.edu
This seminar will present results of a NOWRDC funded study predicting the stability impacts of New York's proposed Offshore Wind Farms using electromagnetic transient (EMT) and small signal modeling techniques.

F - Power System Grounding – Intermediate
By: Peter Sutherland, PE; peter.sutherland@ieee.org
Proper grounding is essential for the safe and reliable operation of electric power systems. There are several areas of grounding which must be considered: system grounding, equipment grounding, static and lightning protection grounding. System grounding is grounding of the electrical distribution system considered downstream of a transformer or generator. There are several types of system grounding: ungrounded, solidly grounded, high and low resistance grounded, inductive and resonant grounding. System grounding must be coupled to ground fault protection systems. Equipment grounding is grounding of the metal frames of equipment such as switchgear, panelboards, motors and generators. This routes any ground fault currents to back to the source. Static charges can accumulate on conductive parts which should be discharged. Lightning strikes can result in large currents which must be safely led to ground.

F - Synchronous Condenser Short-Circuit Considerations – Intermediate
By: Arthur Depoian, PE, LSM, IEEE, M.NSPE; GE Vernova - adepoian@gmail.com; Arthur.depoian@gevernova.com
The transition to renewables and Inverter Based Resources has lowered grid strength (short-circuit) requiring the addition of synchronous condensers to the grid. This presentation explores methods to optimize synchronous condenser short-circuit contribution to the grid as well as the practical limitations.

F - DER Islanding – What is the Real Risk? – Intermediate

By: Reigh Walling; Walling Energy Systems Consulting, LLC - rwalling@wesconsult.com

There has been widespread concern in the utility industry that distributed energy resources (DER) could continue to energize a utility distribution circuit once that circuit is disconnected from the utility substation source. This concern has driven much of the DER interconnection requirements made by utilities. Recent studies have examined the factors defining this risk and this presentation puts this risk in perspective.

F - Understanding the Inception of 14.7 Hz Oscillations Emerging from a Data Center in Dominion Energy's Power Grid – Intermediate

By: Luigi Vanfretti, PE; Rensselaer Polytechnic Institute - vanfrl@rpi.edu

This presentation will describe a measurement-based analysis of 14.7–14.8 Hz oscillations emerging from a data center in Dominion Energy's power grid. Synchrophasor data collected over several months were analyzed using non-parametric spectral analysis approaches to understand its inception and, more importantly, to characterize its behavior. What makes this case unique is the presence of an independent and unplanned exogenous excitation in the system. This excitation plays a critical role in understanding the inception and emergence of an otherwise unobservable dynamic process that, as it destabilizes, results in oscillations at a higher and narrow frequency range than that of conventional power system dynamics.

F - Understanding Dynamic Performance of Power Line Carrier Protection Channels: A Real-World Application of Lossy Modal Analysis – Intermediate

By: E. Louis Seiter, III, PE; National Grid - Edward.Seiter@NationalGrid.com ; Craig Palmer; PowerComm Solutions - Craig.Palmer@PowerCommSolutions.com and Scott Slaski; National Grid - Scott.Slaski@NationalGrid.com

This presentation presents a method of lossy modal analysis used to resolve a decades-old power line carrier (PLC) protection issue. Simulation indicated that the system might be experiencing a phenomenon called Mode Cancelation and that changing the coupled phase of the carrier would resolve the issue. This turned out to be the cause an the channel issues were resolved. An overview of the lossy modal analysis process is provided in this presentation. Modal simulations demonstrate how changes in conductor height and ground resistivity over time contribute to the periodic nature of the observed issues.

ENVIRONMENTAL:

T - Pressure Sewer For New Sewer and Sewer Repair - Introductory

By: William Stradling; Siewert Equipment - wstradling@siewertequipment.com and David Benson - david.benson@eone.com

This course provides a one-hour overview of sewer feasibility, system improvements, and pressure sewer applications, supported by relevant case studies. Participants will gain insight into the latest approaches and technologies used in sewer system design and improvement, with real-world examples to reinforce key concepts and help inform decision-making for future projects.

<u>T - Decentralized Wastewater Treatment Designs with a Focus on Biologically Active Filter Technology</u> – Intermediate-Advanced

By: Michael Lannon, PE; Siewert Equipment - mlannon@siewertequipment.com

A novel treatment solution will be presented for addressing the needs of providing regulatory-compliant wastewater treatment for smaller and discrete developments such as apartment buildings, seasonal resorts, convenience stores, and other remote settings which cannot be cost effectively routed to municipal wastewater treatment plants.

<u>T - Ground Heat Exchanger Design Principles and Design Tools</u> – Intermediate-Advanced

By: Ryan Carda; New York Geothermal Energy Organization - ryan@mwgeothermal.com

This session will identify the inputs required for effective Ground Heat Exchanger (GHX) design. Building heating and cooling load analysis is the starting place for the GHX design, but heat pump equipment selection and knowledge of the geology are also essential components of an efficient and reliable GHX design. The various GHX design tools will also be covered.

<u>T - Incidental Disturbance Assessments and Site-Specific Variances</u> – Intermediate

By: Cheyenne Dashnaw, PE; Atlantic Testing Laboratories - cdashnaw@atlantictesting.com

Methodologies of incidental disturbance/clean ups of uncontrolled disturbances. Also, site specific variances petition process within NYS.

<u>F - Geologic Hazards Associated with Soils, Rocks, Earthquakes, and Karst</u> - Intermediate

By: Dr. Christopher Kelson PhD, PG; Atlantic Testing Laboratories - ckelson@atlantictesting.com

The presentation provides geological insight into some of the most common engineering hazards associated with Earth materials, events and processes and how to identify and prepare for them.

<u>F - In Situ Solidification Approaches at MGP Sites to Reduce Costs/Uncertainties and Address Challenging Site Conditions – Intermediate</u> - Intermediate

By: Marek Ostrowski, PE; Brown and Caldwell - mostrowski@brwncald.com

In situ soil stabilization has been implemented extensively as an alternative to the excavation and disposal at MGP sites. We outline the ISS evaluation/implementation process at several MGP sites in the northeastern United States that presented challenging conditions. The implementation included the use of ISS as the main remediation technology and as means of excavation support. We present conclusions about the utility of laboratory studies and pilot tests, ISS performance regarding strength and hydraulic conductivity of the solidified mass, post-implementation impact on groundwater conditions, and cost-effectiveness of ISS compared to excavation and off-site disposal. We discuss key implementation considerations.

F - The Effects of Hydraulics and Treatment unit Efficiency on the number of Turnovers Required for Decontamination – Intermediate

By: John Pacione; University at Albany – Dept. of Environmental Engineering - jpaccione@albany.edu

Flow-through vessels used as part of water distribution systems can become contaminated disqualifying the water from use. In such instances, the water purveyor may use a treatment unit to treat the water and return it to the vessel. Depending on the treatment unit efficiency and the hydraulic flow patterns, determine the number of turnovers required until the vessel can be put back into service. This analysis provides a quantitative method for determining this, and the analysis can be extended to industrial applications as well.

ENERGY/MECHANICAL:

F - The Emergence of Thermal Energy Networks – Intermediate

By: John Ciovacco: Aztech Geothermal, LLC - jciovacco@aztechgeo.com

This program will provide an update on the expanding number of Thermal Energy Networks (TENs) and Utility Thermal Energy Networks (UTENs) across the US in recent years. Driven largely by either climate legislation or policy driven regulation, there are now 13 states (as of 11/2025) that have legislation in place to expand TENs and/or UTENs. The session will discuss the expanding scope of these systems being designed and installed by both regulated gas utilities, in campus environments, by municipalities and public/private partnerships. Topics include project economics, federal & state incentives, design & control of TENs, environmental benefits and potential reductions in local electric grid demand. These are complex-community scale projects involving many engineering disciplines to design and execute effectively.

F - Three Mile Island: Past, Present and Future – Beginner - Intermediate

By: Dave Allard, CHP; Chairperson, TMI Unit-2 CAP - allradcon@comcast.net

Three Mile Island Units 1 & 2 offer an interesting case study related to nuclear power. This presentation will explore: radiation protection standards and regulations; the March 1979 Unit-2 accident, response and recovery; the failures in communications at that time; offsite public radiation dose and potential public health impact; pre- and post-accident monitoring of the public for radiation exposure and effects; a related major legal class-action health effects case; psychological impact on the community; the restart of Unit-1 in the mid-1980s, shut-down in September 2019, and another restart expected in late 2027. Other aspects to be reviewed include: radioactive waste generated during operations of Unit-1; past and current cleanup / decommissioning of Unit-2; ongoing radiological environmental surveillance; the local and national concerns related to onsite spent nuclear fuel storage, long-term transport and disposal of SNF; as well as the future of nuclear power and increasing public acceptance will be examined.

F - A Quick Look at the Sweeping Changes to the New 2025 NYS Energy Code - Intermediate

By: Wendy Talarico, NYSCEO, LEED AP; LaBella PC - wtalarico@labellapc.com

NYS adopted a new energy code that is very different from the previous version—and not just because of the headline-grabbing mandate for all new buildings to ditch fossil fuels. This new version includes more insulation, fewer thermal bridges, better HVAC efficiencies, and tightened lighting controls. This presentation outlines the changes and how they affect NYC and NYS.

ETHICS:

T - NYSED Professional Practice Updates – Intermediate

By: Eric Greppo, PE; NYSED - Eric.greppo@nysed.gov

Updates from the NYSED Office of the Professions Board Office for Engineering, Land Surveying and Geology. Discussion topics will include key regulatory updates, trends in fraudulent use of seals and professional misconduct, continuing education, overlapping practice scopes, emerging technology and AI assisted design and mentoring for aspiring licensees.

F - Ethically Managing Extreme Risk to Surgically Stabilize the Leaning Tower of Pisa – Introductory-Intermediate

By: Ashraf Ghaly, PE, PhD; Union College - ghalya@union.edu

The off-vertical disposition of the Leaning Tower of Pisa started with its construction in 1173 and reached a dangerous level in 1990 when the tower was deemed to be on the verge of failure which heightened urgency. Many attempts over the life of the tower were made to stabilize it to no avail. Some of these attempts had an adverse effect and worsened the problem. This added tremendous pressure on those that proposed novel methods to stabilize the tower as a combination of extreme risk and uncertainty regarding the outcome highlighted the ethical responsibility of the engineers involved in a project with unpredictable conclusion. This presentation will detail the work carried out between 1990 and 2001 to stabilize the tower and its performance between 2001 until the present time which coincides with the 25th anniversary of the completion of the successful stabilization effort.

GEOTECHNICAL:

F - Subsurface Investigation and Geotechnical Evaluation – Intermediate

By: Adam Scheider; Atlantic Testing Laboratories - aschneider@atlantictesting.com

A discussion on subsurface investigation methodologies and the information provided by a geotechnical evaluation.

OTHER:

F - Planning for the Future Using the 2025 Report Card on the State of America's Infrastructure – Intermediate

By: Ashraf Ghaly, PE, PhD; Union College - ghalya@union.edu

The latest report card on America's infrastructure is designed to inform the decisions made by engineers, planners, public agencies, and policy makers. The report focuses on the interconnected system of highways, streets, public buildings, mass transit, ports, airports, inland waterways, water systems, waste facilities, the electric grid, broadband networks, dams, levees, and other public and private facilities. It reports on 18 infrastructure categories, defines their problems and funding gaps, offers solutions, and highlights the fact that investment pays. The report card details the needs, challenges, investment, and resilience requirements in pursuit of upgrading or replacement of less-than-satisfactory facilities. Modernization of aging infrastructure comes at a cost which will have to be generated and borne by the society. This presentation intends to facilitate an overall understanding of the scope of the task before the engineering community. It also aims to raise awareness of the important role engineers play in not only the design and construction of facilities but also in the promotion of public backing of infrastructure improvement efforts.

F - Fueling Your Solutions – Intermediate

By: Chris Alexopoulos; Milton Cat - Chris_alexopoulos@miltoncat.com

This seminar will explore both gas and diesel fueled generator sets as well as address changes in technology, discuss popular myths and provide application examples.

STRUCTURAL:

T - BLS 725 – Rim Board: The Critical Component – Intermediate

By: Andrej Sujansky, PE; Trus Joist – Weyerhaeuser - andrej.sujansky@wy.com

BLS 725 focuses on the critical role rim board has in wood-framed structures. Rim board is an essential component for platform framed construction. It plays a key role in maintaining load path continuity, transferring vertical and lateral loads from the upper parts of the structure down to the foundation. In addition, rim board can function as a beam that spans over openings and as a secure attachment point for the deck ledger board. Commonly manufactured from engineered wood products like LSL, OSB, and LVL, rim boards offer high compressive strength and dimensional stability. Proper installation, such as matching rim board depth to joist depth and using recommended nailing patterns, is essential to ensure performance and safety.

T - Lifting and Rigging Design 101: Picking things up and putting them down – Intermediate

By: Matthew Cark, PE; C.T. Male – m.clark@ctmale.com

We will cover the design of below-the-hook rigging, lifting plans and lifting beams. What are the most common lifting problems we need to solve? And what are the slings, shackles, beams etc. in our “toolbox” to solve those problems. Lastly, we will give an overview of how to design more complex/custom lifting devices according to the provisions of ASME BTH-1.

TRANSPORTATION:

T - Asphalt and Sustainability – Meeting Environmental Demands of NYS – Intermediate

By: Bruce Barkevich; New York Construction Materials Association - bruce@nymaterials.com

New York State has some very robust sustainability goals written into law. All industries are challenged in supporting these goals. The Asphalt Industry has a long history of environmental stewardship. This is the case as it relates to NYS’s laws. This program will update you on the continued drive to sustainable production from Asphalt producers.

T - Emergency Winter Replacement of a 100-year-old North Country Culvert utilizing NYSDOT’s Superbox – Intermediate

By: Brenda Crudele, PE; NYDOT - Brenda.Crudele@dot.ny.gov and Steve Gagnon, PE; NYSDOT - steve.gagnon@dot.ny.gov

On Sunday March 2nd, 2025, a NYSDOT plow driver stopped to inspect an irregularity in the roadway. He found a large sink hole in the roadway Causing the road to be closed and started the steps for an emergency replacement of a 100-year-old culvert 29 feet below the ground. The Presentation will cover the emergency replacement and NYSDOT’s Superbox Program which stockpiles precast culverts for emergency installations.