Tuesday, October 8, 2019 Binghamton Holiday Inn Arena		
Johnson City Room	**Southern Tier Room**	**LaTasse Room**
REGISTRATION 8:00 - 8:30 A.M., Outside Johnson City Room (includes coffee, muffins and fruit)		
8:30 - 9:30	8:30 - 9:30	8:30 - 9:30
Course Description: **New York State Bridges: History and Evolution of Engineering**. This presentation will provide a look back at milestones in the design and construction of bridges, including prominent failures and their role in the evolution of bridge design specifications and engineering practice, as they apply to bridges located in New York State.	Course Description: **Certifications in the Industrial Coatings Industry** Every Year huge financial losses occur due to failures of Industrial paints and coatings. Coating failures can occur for dozens of reasons, although they are typically a result of poor application, incorrect surface preparation, or inadequate specifications. The presentation outlined below shows how Civil Engineers can better protect end users and their assets by utilizing certifications and standards set by NACE and SSPC.	Course Description **Humidification 101** The purpose of this course is to provide each participant with the basic knowledge and skills needed to understand and design humidification systems. We will discuss common components, types of humidifiers, typical applications and design concerns, specification concerns, and some pitfalls that are all too common. We will also discuss the importance of water quality and the treatment options that are available. Lastly, we will review control strategies that work and the ones to avoid.

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Speaker Info: **David Kennicutt, P.E.** is Senior Project Manager in the Transportation Department of Delta Engineers, Architects, & Land Surveyors, DPC. He has over 40 years of experience in the design of highways, bridges and appurtenant structures. Mr. Kennicutt is a registered Professional Engineer licensed in New York State.	My name is Frank Stento and I became involved with the Painters & Allied Trades in March of 2013 as an apprentice. The experience that I've gained has been invaluable. I have worked in the field learning as much as I can about not only my trade but also the construction process in entirety. I volunteered my efforts to take on added responsibility and was running work only a couple years after I started. My executive board positions within the union structure have given me strong skills in relationship building, and networking. They have also provided great insight into managing an organization. I have a track record of safety both personally on the job as well as my certifications and instruction time. I know that safety is very important as a leader in the field, and I believe my experience could be helpful to others. I am certified to train Hazardous Communications, Confined Space, OSHA10&30, CPR, First Aid, AED, Blood Borne Pathogens. Marc has been involved in the coatings industry for the last 15 years. Marc has worked on bridges (concrete and steel), tanks (elevated and ground), piers, and other steel structures. Not only being involved in the coatings side of it, Marc has sandblasted, high powered pressure washed, power tooled, rigged and derigged, and done Quality control testing on these structures. Marc is certified to teach the Industrial Applicator, and leads the training for the Industrial Painters who are going to take the SSPC CAS (Coating Application Specialist) test. Marc has his SSPC C3 certification and is a provisional Instructor, SSPC CAS certification, and is a NACE Level 2 #65606. Marc is currently the Training/Apprenticeship Coordinator for the FTI of Western and Central NY. Marc is also the lead apprentice instructor for the Industrial Painters at District Council 4.	Speaker Info: **Dave Bennett**, Regional Sales Manager for DriSteem - Mr. Bennett has been in the HVAC industry for over 20 years. His background includes experience as a contractor, manufacturer's rep, and as a manufacturer regional manager. He has a worked on and designed a wide range of systems including hydronic heating and cooling, air distribution, electrical, plumbing, refrigeration, building controls, and humidification.

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REGISTRATION 8:00 - 8:30 A.M., Outside Johnson City Room (includes coffee, muffins and fruit)		
9:30 - 9:45 Break		
9:45 - 10:45	9:45 - 10:45	9:45 - 10:45
Course Description: **Subsurface Investigation and Geotechnical Evaluation** Boring log and subsurface investigation methodologies; basic understanding of how data is obtained, soil classifications, engineering properties of soil and bearing capacities.	Course Description: **NYS Power System Energy Market** This presentation will provide: (1) a brief overview of the electric power system and how it operates; (2) a summary of electric power system operations in New York State from 1965 to 1999 under the New York Power Pool, and under the New York Independent System Operator (NYISO) from 1999 to the present; (3) a summary of the bulk power system coordination in North America and New York State; and (4) a detailed review of the NYS Energy Market under the Locational-Based Marginal Pricing (LBMP) Methodology.	Course Description: A review of **VFD Harmonic Distortion**, what it is and how its created. Followed by a Four Common Harmonic Mitigation Devices, how to apply them and their benefits. (1.0 PDH)
Brian T. Barnes, P.E. received a Bachelor of Science degree in Physics from Cortland College and a Bachelor of Science degree in Civil Engineering from the University at Buffalo. Brian is a Registered Professional Engineer in the States of New York, Pennsylvania, and Vermont. Brian is a Senior Engineer in the Utica Division of ATL. He specializes in Geotechnical and Construction Materials Testing and Engineering. He has been with ATL for 24 years.	**Joseph C. Fleury, P.E**. has thirty-eight (38) years of experience in the electric power industry and is currently an independent consultant in the area of electric substation engineering, maintenance, safety and physical security. He worked at New York State Electric & Gas Corporation (NYSEG) for over thirty-three (33) years. He has a BSEE in Power Systems from Clarkson University, and an MS in Engineering Administration from Syracuse University. (continued below)	**Ron Cimino** - Danfoss Regional Manager NE HVAC - Ron has been with Danfoss since 1996 and has previous experiance with US Motors and Emerson. Ron has a Mechanical Engineering/Turbine Design degree from Clarkson University as well as an MBA. Motors are the primary driven device of a VFD, and Ron's previous background in motor design allows him to talk in depth on the effect of motor design vs VFD technology
10:45 - 11:00 Break		
11:00 - 12:00	11:00 - 12:00	11:00 - 12:00

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Course Description **- Precast 101** - This presentation was developed for civil engineers, design project managers, contractors, construction inspectors, and construction managers involved in site development, roadway, bridge, utility and storm water improvement projects. The attendees of this course will gain an understanding of the best practice approaches for managing the design, specfications and installation of precast concrete products on their projects. The course provides a basic understanding of manufactured concrete products including a review of the available common products in the utility, drainage an transportation markets. It also provides a discussion of the advantages of precast concrete and the critical steps involved in the structural design of precast concrete structures. A case study project is presented to further enhance the understanding of the critical factors involved related to the use of precast concrete.	Course Description - **Fuel Cells and the Future of Distributed Generation** - Fuel Cells are playing an increasingly critical role in the future of distributed generation. This presentation will touch on the past influence and history of Fuel Cells to their present role in distributed generation. The technology and its application as a clean, reliable and affordable source of baseload power will be discussed in depth along with its ability to work synergistically with other forms of power and clean energy. The presentation will conclude with examples of cutting edge fuel cell applications as well as future developments in Fuel Cell technology.	Course Description11:00 - 12:00 Metal Additive Manufacturing, Julius Bonini, P.E. (1.0 PDH)

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Ron Thornton, PE - Ron is a registered Professional Engineer in New York with over 35 years of experience in the concrete industry. He currently serves as the Executive Director of the Precast Concrete Association of New York and New Jersey Precast Concrete Association. He is Vice President of Concrete Engineering Solutions and is considered a leading authority in the design, manufacturing and installation of precast concrete products for use in state, municipal and private projects. Ron is a long-time active member of the National Precast Concrete Association and also serves on both ASTM C27 and C13 Standards Committees. - **Ralph Verrastro, PE** - Ralph graduated with a BS in Civil Engineering from Cornell University in 1976. His career includes bridge design experience throughout the United States and is a registered Profession Engineer in 37 states. Ralph speializes in the design, inspection, evaluation, technical supervision, and quality assurance/quality control for new and rehabilitation bridge projects. He is a technical expert in the use of fast track repair/replacement methods using prefabricated bridge components also known as Accelerated Bridge Construction., He has extensive experience in the evaluation and repair of historic metal truss bridges and concrete arch bridges.	Speaker Info - Mike Recher, PE - Mike is a licensed Professional Engineer in New York state and is a Principal Applications Engineer with Bloomenergy. With Bloom Energy since 2014, Mike is involved in all aspects of early Design Feasibility, Site Assessment, Client Consultation, Project Management, Engineering Design, Analysis, and Commissioning. Prior to 2014, Mike worked for over a decade as a Consulting Engineer in the Mission Critical Data Center space as well as the Water, Wastewater and Electric Utilities Industry.	Speaker Info

12:00PM In **Atrium** - Lunch & Presentation (12:30 - 1:30)
Course Description **Ethics, Technology and the Engineer--The roles of engineers and how they make ethical decisions** Good decisions are easy to make when you understand the logic and reasoning behind them. Everyday engineers are faced with difficult situations that may affect their integrity. Unlike other ethics programs, this interactive session focuses on why we make decisions and how we use the information at hand to make sound decisions.
Speaker Info **Lori Marra, RGI**. Lori spent 30 years in corporate communications and training with a focus on technical communication and training. She has led technical communication teams in companies that design and produce products and software in many disciplines including warehousing, digital technology, medical imaging, technical training, and regulatory and service documentation.She is well versed in communication requirements in highly regulated fields. She is an accomplished speaker and trainer who has delivered diverse content to a broad range of audiences. She's currently a full-time professor at Rochester Institute of Technology where she teaches Technical Communication.She is also a Senior Consultant at RGI International where she designed and developed

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1:30 - 2:30	1:30 - 2:30	1:30 - 2:30
Course Description:**: Thermal Performance of Concrete Masonry Wall Systems:** This presentation will provide information on the contributions of concrete masonry's thermal mass to energy efficient structures. The presentation will also introduce several strategies for insulating both single and multiwythe construction. Attendees will receive an overview of various methods of compliance for masonry assemblies with respect to the 2015 International Energy Conservation Construction Code, as adopted by New York State, and the 2016 New York City Energy Conservation Construction Code.**Ther**T	Course Description: **Protective Relaying in Electric Power Systems**. This presentation will provide: (1) a brief overview of the electric power system and the operational aspects of the power system; (2) defining protective relaying and its functions and fundamental principles of operation; (3) describing how protective relays operate; (4) reviewing the types and styles of protective relay equipment; and (5) discussing common protective relay schemes currently in use on the electric power system.	Course Description: **Lubricating Oils- How They Work, What's Next.** The session will begin with a discussion on the source of lubricating oils, then explain the viscosity/temperature relationship, and the critical nature of common additives. It will then present a series of slides showing exactly how lubrication occurs in the three the three common regimes. The final slides will detail how both automotive and wind turbine usage are driving changes.
Nicholas F. Carparelli is the Executive Director of NYS Concrete Masonry Association. Since his appointment in 2003, Nick has been responsible for facilitating the development and implementation of programs intended to assist design professionals with the use of concrete masonry in various construction applications throughout NYS. He is also Co-Director of the NYS Structural Masonry Coalition, an alliance of masonry organizations working together to encourage the use of structural masonry. Nick has also served on the ACI-CNY Board. Screen reader support enabled.	**Fleury**, cont. While at NYSEG, he worked in: (i) Substation Engineering and Operations, engineering and managing electric substation construction, maintenance and operations projects; (ii) Project Management, overseeing independent power producer generation projects; (iii) System Operations, directing the NYSEG electric and natural gas Energy Control Centers and corporate Safety, Security and Training Departments; (iv) Incident Management, coordinating emergency response activities for major storms and electric system outages; and (v) Federal and New York State Energy Regulation, coordinating compliance with federal and state electric system planning, operating and reliability standards.	Neville Sachs is a Class of '63 graduate of Stevens Institute, BE with majors in ME and Chem E. Worked in a variety of manufacturing and engineering position until 1973 when he joined Allied Chemical (now Honeywell). At Honeywell, he was into mechanical reliability and failure analysis including lubrication, nondestructive testing and predictive maintenance. After Allied's Syracuse Works closed in 1986, together with Phil Salvaterra, he formed Sachs, Salvaterra & Associates, Inc., a "Reliability Engineering Department for hire".
2:30 - 2:45 Break		
2:45 - 4:15	2:45 - 4:15	2:45 - 3:45
Course Description- **Engineering a Successful State/Federal Aid Transportation Project**- This presentation will provide to the engineer strategies to implement and common pitfalls to avoid during the planning, design and construction of state and federal aid transportation projects.	Course Description - **Artificial Intelligence (AI): Introduction, Applications and Hardware for Deep Learning,** It will explain the differences between analog and digital implementations. It will then cover analog computing for Deep Learning, including the components, materials, architecture and various algorithms along with some of their advantages and disadvantages, including performance.	Course Description: This presentation is a holistic look at condensing heat rejection equipment, design principles and system selection optimization. It will provide participants with a brief overview of condensing heat rejection equipment and applications. Discuss strategies for equipment selection with system optimization for both first cost and life cycle operating cost, applications of new technologies.

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Speaker Info**- David Kennicutt** is Senior Project Manager in the Transportation Department of Delta Engineers, Architects, & Land Surveyors, DPC. He has over 40 years of experience in the design of highways, bridges and appurtenant structures. Mr. Kennicutt is a registered Professional Engineer licensed in New York State.	Speaker Info - **Wilfried Haensch** received his Ph.D. from the Technical University of Berlin, Germany in the field of theoretical solid state physics. In 2001 he joined the IBM TJ Watson Research Center to lead a group for novel devices and applications. He was responsible for the exploration of device concepts for future technology nodes He is currently interested in novel technologies for neuromorphic computation with emphasis on exploring memristive elements (like PCM, RRAM, FeRAM, etc) in neural network arrays. He is the author of a text book on transport physics and author/co-author of more than 180 publications. He was awarded the Otto Hahn Medal for outstanding Research in 1983. He was named IEEE Fellow in 2012.	Speaker Info - **Jacob Hall** joined Pro Air Plus in 2013, and has over 15 years experience as a sales engineer by offering product technical support and working closely with design professionals, contractors, and building managers in applying, selecting, and procuring equipment appropriate for the application. He has a broad background and understanding in facility/plant HVAC systems, Building Automation, Chilled Water Systems, Custom Air Handling Units, Decentralized Systems, Industrial Systems, Healthcare, Education, Commercial, and Energy Conservation. He has a BS in Mechanical Engineering from the United States Naval Academy.
All sessions are one hour (1 pdh), except as noted. It includes Lunch for a total of 6 to 6.5 pdh.		

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