



Engineers Joint Committee of Long Island

Anthony Cacioppo, P.E., Chair
Paul Lanzillotta, P.E., Vice-Chair

ENGINEERS WEEK SEMINAR SERIES

Wednesday, February 13, 2019

Place: *Holiday Inn Plainview - 215 Sunnyside Boulevard, Plainview, NY 11803*
516-349-7400 (Front Desk)

Program:	8:00 am – 9:00 am	Registration & Continental Breakfast
	9:00 am – 10:00 am	Morning Seminars
	10:00 am – 10:15 am	Break
	10:15 am – 12:15 pm	Morning Seminars Cont'd.
	12:15 pm – 1:15 pm	Lunch
	1:15 pm – 3:15 pm	Afternoon Seminars
	3:15 pm – 3:30 pm	Break
	3:30 pm – 4:30 pm	Afternoon Seminars Cont'd.

Seminars & Descriptions

“Legionellosis: Risk Management for Building Water Systems” (1 PDH) **9:00 am – 10:00 am**
Presented by: Patricia T. Graef, P.E., ASHRAE Fellow – Munters Corp.

This session provides an overview of Legionella bacteria, its source, how it is amplified, how it is transmitted and who is susceptible. There will be a look at the standard, the background on its development and what is required for its application and adoption. Specific topics include the framework for legionella bacteria control measures, health care facility requirements, requirements for adopting a Water Management Program for specific devices such as cooling towers, ornamental fountains, spas, etc., elements of a Water Management Program, and designer requirements.

“Electrical Topics for Non-Electrical Engineers” (2 PDH) **10:15 am – 12:15 pm**
Presented by: Paul Lanzillotta, P.E. – Pine Ridge Consultants

The course is intended to provide a basic understanding of electrical systems and design elements for non-electrical professional engineers with overall design responsibility related to buildings and facilities. With emphasis on practical understanding over theory, we will cover the basics of electrical power systems and components typically used in building systems, including electrical units, laws of electric circuits, single and three phase power systems, single line diagrams. We will discuss conductor and circuit breaker sizing, and short circuit protection with respect to the NEC. Learn the attributes that must be considered when designing for and specifying transformers, motors, generator sets, automatic backup power controllers and how they work. The session will conclude with a review of electrical safety and important considerations related to short circuits and arc faults.

“PID Control Theory” (2 PDH)

1:15 pm – 3:15 pm

Presented by: Chris Mooney – Neal Systems, Inc.

Accurate and precise process control is a crucial part of most industrial processes yet the concepts of PID control remains a mystery to many people in the industry. The purpose of this discussion is to explore and understand the basics of PID control and to discuss advanced methods for thermal and other process optimization. This will include such concepts as lead/lag control, cascade control, auto/manual control, switch over control, and more. Additionally, many modern technological enhancements to control devices offer users greater insights into the health of a process. Therefore, the discussion will close with a brief overview of some technological aids which are available in many off the shelf control devices.

“ASHRAE Building Energy Quotient (bEQ)” (1 PDH)

3:30 pm – 4:30 pm

Presented by: M. Dennis Knight, P.E. – Whole Building Systems LLC

ASHRAE has a new Building Energy Quotient (bEQ) Energy Labeling Program that officially launched its operational program in 2011, and launched its “as designed” rating in 2013. This presentation includes an overview of the ASHRAE bEQ program with an up to date discussion of its primary goals, objectives, and procedures.

“Roof System Resiliency” (1 PDH)

9:00 am – 10:00 am

Presented by: John Dulisse – Zacharia Associates

Resilient buildings are designed and built to not only withstand significant weather events, but to continue to function after. A significant component of a resilient building is unquestionable the roof system. Protecting a building from “everyday” weather events is a roof’s priority, but policies are mandating and owners are starting to demand resilient roofs and buildings. The presentation will discuss how to design new roofs to be resilient and how to upgrade existing roofs to be resilient.

“An Introduction to Flow Meter Technologies” (2 PDH)

10:15 am – 12:15 pm

Presented by: Wayne Martin – Neal Systems, Inc.

We will be covering all of the following areas: flow definitions, reasons for flow measurements, difference between total flow and flow rate, understand mass flow versus volume flow, identify what is standard volume, understand accuracy and repeatability, calculate percent of rate vs percent of full-scale accuracy, and determine range-ability. Attendees will become knowledgeable of flowmeter technologies and important organizations associated with these technologies.

“Vertical Wind Turbines” (2 PDH)

1:15 pm – 3:15 pm

Presented by: Yongjian Gu, Ph.D., P.E. – United States Merchant Marine Academy

This presentation briefly reviews the history of wind turbine development and compares two wind turbine technologies: horizontal-axis wind turbines (HAWT) and vertical-axis wind turbines (VAWT). Since HAWT technology is approaching maturity, more focus will be put on VAWT technology. The presentation shows various turbines. It presents a unique vertical-axis wind turbine in which the turbines are stackable. During the presentation, the author illustrates the design of this exciting turbine and displays its working principles. Test data of this turbine will be presented as well as several potential applications.

“Steep Slope Roofing: Ventilation Solutions” (1 PDH)

3:30 pm – 4:30 pm

Presented by: Karl Luechau – GAF

An improperly ventilated house is susceptible to a range of problems, from mold growth and structural damage to increased energy costs. This course discusses principles of proper ventilation in houses with steep-slope roofing – from the science behind moisture and airflow to the products used to assist ventilation through a structure.

“Division of Buildings Standards & Codes–Update 2018” (1 PDH/1 Hr. CEO) 9:00 am – 10:00 am

Presented by: Courtney Nation, P.E. – NYS Dept. of State

The class is basically an overview of New York’s Uniform Code development process and provides an update on additions to the published codes that were adopted under emergency rules subsequent to publication. Topics include changes in state executive law relating to more restrictive local standards, parking garage inspections, and codes training.

“Why Fire Alarms Fail – 25 Steps to Failure” (2 PDH/2 Hr. CEO)

10:15 am – 12:15 pm

Presented by: James M. Mundy, Jr. – Asset Protection Associates, Ltd.

Not a how to design presentation, but a presentation on why fire alarm systems fail, sometimes due to errors in design, but also for many other reasons. The presenter has fifty plus years of experience in fire alarm, building Signaling, fire suppression, access control, and has seen many failures of fire alarm systems amongst the vast number of systems that work properly.

“Accessibility Update for Commercial-2015 Bldg Code” (3 PDH/3 Hr CEO) 1:15 pm – 4:30 pm

Presented by: Dominic Marinelli – Accessibility Services

The most current state and federal Accessibility Requirements impacting Site Design and Commercial Construction will be presented by NY State Building Codes Council member and long-time contributor to the American National Standard for Accessible and Usable Buildings & Facilities, the 1991 and 2010 ADA Standards and the Fair Housing Accessibility Guidelines.

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SCHEDULE

	Room A	Room B	Room C
9:00 - 10:00	<i>Legionellosis: Risk Management for Building Water Systems</i>	<i>Roof System Resiliency</i>	<i>Division of Buildings Standards & Codes - Update 2018</i>
10:00 - 10:15	BREAK		
10:15 - 12:15	<i>Electrical Topics for Non-Electrical Engineers</i>	<i>An Introduction to Flow Meter Technologies</i>	<i>Why Fire Alarms Fail - 25 Steps to Failure</i>
12:15 - 1:15	LUNCH		
1:15 - 3:15	<i>PID Control Theory</i>	<i>Vertical Wind Turbines</i>	<i>Accessibility Update for Commercial - 2015 Building Code</i>
3:15 - 3:30	BREAK		
3:30 - 4:30	<i>ASHRAE Building Energy Quotient (bEQ)</i>	<i>Steep Slope Roofing: Ventilation Solutions</i>	<i>Accessibility Update cont'd.</i>

*PDH credits will be provided for all courses

*Seminars in Room C will also provide Training Credits for Code Enforcement Officials

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MEMBER SOCIETIES

New York State Society of Professional Engineers
 -Long Island Chapter
 American Institute of Aeronautics & Astronautics
 Institute of Industrial and Systems Engineers
 American Society of Civil Engineers

Institute of Electrical & Electronic Engineers
 American Society of Heating Refrigeration & Air Conditioning Engineers
 American Society of Mechanical Engineers
 Society of Women Engineers
 Society of Manufacturing Engineers
 New York Institute of Technology - Old Westbury

Farmingdale State University
 Stony Brook University
 Hofstra University
 International Society for Automation
 American Society for Engineering Education
 American Society for Quality
 US Merchant Marine Academy

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To register, complete and return this form with payment by February 7, 2019 to:

Amanda J. Haimes, 172 Sherry St, East Islip, NY 11730.

Email questions to: ajhaires@gmail.com

ALL FIELDS MUST BE COMPLETED. PRINT NEATLY.
CHECK ALL SEMINARS YOU WISH TO ATTEND.

Fee: _____ \$135 for full day (4-6 PDH); includes lunch
_____ \$75 for half day (3 or fewer PDH); includes lunch

STUDENTS WITH A VALID ID MAY ATTEND AT NO COST (must submit form)

_____ 9:00am – 10:00am	“Legionellosis: Risk Management for Building Water Systems” (1 PDH)
_____ 10:15am – 12:15pm	“Electrical Topics for Non-Electrical Engineers” (2 PDH)
_____ 1:15pm – 3:15pm	“PID Control Theory” (2 PDH)
_____ 3:30pm – 4:30pm	“ASHRAE Building Energy Quotient (bEQ) (1 PDH)
_____ 9:00am – 10:00am	“Roofing System Resiliency” (1 PDH)
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_____ 10:15am – 12:15pm	“Why Fire Alarms Fail – 25 Steps to Failure” (2 PDH/2Hr. CEO)
_____ 1:15pm – 4:30pm	“Accessibility Update for Commercial – 2015 Building Code” (3 PDH/3 Hr. CEO)

Total PDH _____ **Total Amount Enclosed \$** _____

*** Make check payable to: Engineers Joint Committee of LI**

Name _____ Phone _____

Company _____ Check if Code Enforcement Official _____

Mailing Address _____

E-mail Address _____

If using a credit card, fill out above & below and e-mail form to: ajhaires@gmail.com

Credit Card Number _____ Billing Zip Code _____

CC Type (Circle One): MC, Visa, AE, Disc. Exp. Date _____ CCV Code _____