

FLASHPOINT NEWSLETTER

Hewlett-Packard Company

Special points of interest:

- BRING A FRIEND TO THE JANUARY MEETING!

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JANUARY MEETING INFO

DATE: TUESDAY JANUARY 8, 2019

TIME:

FELLOWSHIP-5:30PM

DINNER-6:00PM

LOCATION:

OLIVER FIRE PROTECTION AND SECURITY

420 FEHELEY DRIVE

KING OF PRUSSIA, PA 19406

THE JANUARY MEETING IS A SPECIAL MEETING! IT'S A BRING A FRIEND MEETING! BRING A COLLEAGUE OR FRIEND TO THIS MONTHS MEETING FOR NO ADDITIONAL CHARGE!

MEETING INFO:

The presentation will be on the effect of obstructed ceiling construction on automatic sprinkler protection. The speaker will be Brent Wunderlich. Brent is the Operations

Chief Engineer for FM Global's Washington D.C. and Philadelphia offices. In this role, Brent is a technical resource for approximately 40 field engineers and 13 account engineers that provide property loss prevention evaluations and risk management solutions to FM Global's clients. Prior to his current role, Brent was an account engineer in FM Global's Washington D.C. office. Brent started his career at FM Global as a field engineer in FM Global's Chicago office after graduating from Valparaiso University with BS in Electrical Engineering.

COST: \$30.00 FOR DINNER AND GUEST

PLEASE RSVP BY 12 NOON ON FRIDAY, JANUARY 4, 2019.

IF YOU ARE INTERESTED IN ATTENDING THE MEETING, PLEASE RSVP TO THE LINK BELOW!

<https://goo.gl/forms/xBsMckjQsAYsNrmq1>

JOB OPPORTUNITY!

LaSalle Engineering is seeking a Fire Protection Engineer/ Sr. FPE to join our firm as we continue to expand our client base in a variety of markets. This is an excellent opportunity to apply your technical and personal skills in a leadership role in the firm. The successful candidate will be responsible for technical project engineering and for cultivating relationships with current and new clients. Please send resumes to Barb Chiesa at bchiesa@LaSalleEng.com or Jeff LaSalle at jlasalle@LaSalleEng.com.

PRESIDENT'S SPARK

As I write this, the new year is rapidly approaching. Over the next several months, our Chapter will be making a special effort to increase our levels of membership, reach out to affiliated organizations, and provide opportunities for increasing our collective knowledge base.

The Board has designated January as "Bring a Friend" outreach for our chapter. Our goal is to expand our membership rolls and encourage more active participation by our members. For the January meeting, please invite a friend or colleague in the fire protection community to attend. Let's see how close we can get to doubling our typical 25-30 attendees this month.

February 14-23, 2019 is Delaware Valley Engineers' Week, with opportunities to interface with engineers of all disciplines throughout our region. Information is available at www.engrclub.org.

Our Annual Trade Show and Seminar will be held on Thursday April 11, 2019. Same location – Doubletree Hilton Valley Forge. The committee, chaired by Jack Fairchild, is actively seeking quality speakers for this event. If you have ideas, please share them with a Board member. We are making efforts to connect with the fire service community for this event. Please save the date!

In May, we will have our Chapter Business meeting, during which new leadership will be elected. Having served on the Board for almost six years, I can say it's been a rewarding experience and has given me a new appreciation for our community of dedicated professionals. Please consider participating at the Board level – it's an experience you'll enjoy.

I trust that each of you enjoyed your time with family and friends over the past month in whatever tradition you celebrate, and I want to wish each of you a healthy, prosperous 2019.

I look forward to seeing you at the January meeting.

Yours in fire safety,
Jeff LaSalle



SCADA - KEY TO CONTROL PART I

WHAT, HOW & WHEN

Heading to an international airport to catch a red-eye flight out would otherwise be impossible without the reliable, monitored power distribution system that many airports currently use. Behind the scenes is the Supervisory Control and Data Acquisition system (SCADA): an ever-growing backbone to the technologically advanced civilization we live in today. SCADA systems include a wide variety of trades including power distribution, refinery operations, or even controls for building cars.



SCADA systems began their popularity in the 1960's as power and control stations required more reliable supervision. Before the implementation of microprocessors and telemetry, organizations were forced to employ personnel to manually operate and oversee critical points of infrastructure. From the birth of SCADA systems and telephone wires being introduced as relay systems and coding schemes to the evolution into implementing programmable logic controllers (PLC) and microprocessors; there has always been a need for the monitoring and control of critical distribution equipment.

SCADA - WHAT IS IT?

All SCADA systems are comprised of a few standard family members. The first member of this family, and first step in which operator personnel are introduced to SCADA systems, are the Human Machine Interfaces (HMI). These interface points are simply the mediums and methods of how a human operator interacts with a machine to be controlled. This may range from localized touch-screen control panels to master "facility-wide" control workstations. Another member of the SCADA family includes the Supervisory (computer) system, or software that an operator may use. This is the control system architecture including the graphical user interface (GUI) and networked data communication between all intelligent devices and the end-user workstation. Many companies are provided with customized GUI's and specialized tools within these software packages to better suit their organizational needs. Control and supervision may be limited or granted to certain users while providing organized logs of error reports or critical points of failure. Some organizations may also choose, depending on the level of confidentiality, to view and control their equipment remotely via web-browser through security issues intersect in critical ways.

Found at local equipment substations is another family member of the SCADA system: Remote Terminal Units (RTUs). While each member of the SCADA family is crucial, system operators and their equipment require the RTUs or microprocessor-controlled electronic devices that are the point in which a physical installation or machine interfaces with the SCADA system network. These interface inputs and outputs to popular Modbus RTU, Profibus, DNP3, and others. Many of the major manufacturers in the building automation industry now offer "all-in-one" solutions for data acquisition, programmable control, and communication transmission. A major concern within this application is the compatibility between manufacturer's products and their supported protocols as well as the physical differences between manufacturer hardware form factors.

Investigating various manufacturers' automation controllers, I/O modules, or even security gateway shows the many differences a designer must take into an account. Without a Basis of Design the implementation of a new system may be problematic in standardization. Manufacturers such as General Electric for example offer many solutions for an equipment rack mountable or DIN rail mountable system automation controller such as the RXC3i. This controller includes processing unit(s), power supplies, discrete or analog input and output modules, temperature control, or serial communications modules. These controllers and modules are housed in everything from plastic bodies and mounted to a local equipment rack to hardened solutions for environmentally harsh conditions.

As an example, their RXC3i CPE400 controller offers a fan-less design, dual heat sinks, extended temperature operating range, and various added input slots. Other manufacturers such as SEL offer hardened standard rack mount size automation controllers such as the SEL-3530 real-time automation controller (RTAC). Even within this manufacturer there also exists many different form factors as the two-rack unit RTAC may be downsized to a module and placed on a larger backplane. This back plane offers other modular devices for power coupling, digital I/O, and AC metering.



Save The Date!
Spring Seminar & Trade Show
April 11, 2019



Location:

DoubleTree by Hilton
Philadelphia – Valley Forge
301 West DeKalb Pike
King of Prussia, PA 19406



The Spring Seminar and Trade Show Committee is proud to announce that the planning of the 2019 Seminar and Trade Show is underway. Please mark the date above on your calendar so you can join us for another year of informative speakers and displays by over 30 vendors.

Like in past years, there will be a total of 12 presentations provided throughout the day. Attendees will have the opportunity to choose which topics they are interested in and attend up to 6 sessions during the seminar.

CEU credits will be offered.

Please look for further information on our website:

www.sfpephiladelphia.org



Society of Fire Protection Engineers Philadelphia-Delaware Valley Chapter

The Scholarship Committee of the ***Philadelphia-Delaware Valley Chapter of the Society of Fire Protection Engineers*** is pleased to announce its offering of scholarships for the 2018-2019 academic year. We are seeking candidates for consideration to receive awards from the John D. Cook III and Philip L. Gaughan Scholarship Funds, for demonstrated academic achievement. In the past, scholarship awards ranging from \$500.00 to \$1,500.00 have been awarded. More than one scholarship may be awarded, depending on the number and quality of applications received.

The purpose of these scholarships is to promote the science and practice of Fire Protection Engineering and its allied fields. Students need not be enrolled in a fire protection engineering degree program but may be in an allied engineering or science program and demonstrate an interest in fire protection. **The scholarship will be awarded for demonstrated academic achievement and performance in the field of fire protection.**

Candidates must be full-time students, and have attained at least sophomore class standing or have completed at least one semester of study in a two-year program as of the end of the fall semester, 2018 and demonstrate a serious interest in a career in fire protection or its allied fields, and shall be a resident of one of the areas described in the Criteria and Information Sheet attached to the scholarship application.

Applicants should submit a copy of the enclosed application form, a full official transcript (including course load for the current semester), and a letter of introduction that outlines their qualifications for this scholarship and any other information they feel would help committee members in their selection. Proof of **permanent residence** in the scholarship area is an eligibility requirement. Submission of such evidence will be left to the discretion of each applicant; each case will be evaluated during the selection process. If there are any questions regarding a student's eligibility for this scholarship, they are encouraged to submit an application. They may also contact the Scholarship Committee by telephone at the number listed below.

Completed applications must be received by **MARCH 1, 2019**. No applications will be accepted after this date.

Scholarship winners will be contacted by telephone or email and the awards will be presented at the May 2019 meeting of the Philadelphia-Delaware Valley Chapter of the SFPE.

Please copy the enclosed Application Form and the Criteria and Information for Scholarship Consideration for distribution to all students who wish to apply for the John D. Cook III Scholarship or Philip L. Gaughan Scholarship. This form will also be available on our Chapter website at www.spfephiladelphia.org/. The PDF version of the application form contains fields that may be used to fill in applicant general information. Please type or print legibly.

Please contact **Mr. Ryan Schartel, Scholarship Committee Chair** at 215-446-4675 during normal business hours if there are any questions concerning completion of the applications. He may also be reached via email at ryan.schartel@gsa.gov

FUTURE CITY PHILADELPHIA

Happy Holidays!

I'm sure everyone is still busy with the holidays. Our students are busy too! They are busy working on the model of their Future City.

There are still some schools that need a mentor. Even with only less than a month to go, it is always helpful to have a mentor to make that final push. The following schools can use a mentor.

- Gwynedd Mercy Academy Elementary School - Spring House, PA
- Howard Gardner MI Charter School - Scranton, PA
- Mount Aviat Academy - Childs, MD
- New Hope Solebury Middle School - New Hope, PA
- St. Albert the Great School - Huntington Valley, PA
- St. Elizabeth Parish School - Uwchlan, PA

If you are interested in working with any of the schools listed above, please let me or Mike McAtee (Mentor Coordinator) mjmcatee@urbanengineers.com know as soon as possible. We will get you in touch with the team's teacher.

Additional Volunteers:

We need many more preliminary judges, special awards evaluators and general volunteers for the day of the competition, which is Saturday, January 19th at Archbishop Carroll High School in Wayne, PA. Preliminary judges and special awards evaluators are needed for the morning session of the competition. General volunteers are needed throughout the day to help organize the schools, get the schools to the judging rooms, collect scorecards, etc.

For more information about judging, please click on the following link, <http://www.futurecityphilly.org/fcvolops.html>

Please visit our website at www.futurecityphilly.org and "Click here to sign up as a Volunteer" on the top left of the page. There you can register to be a mentor, judge, or general volunteer.

Any questions please contact me via e-mail or phone. Please feel free to forward this e-mail to your friends, co-workers, and technical society members.

Karen R. McManuels, PE
Philadelphia Regional Volunteer Coordinator

January 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 NEW YEARS	2 NEW JERSEY ASCET MEETING	3	4	5
6	7	8 PHILADELPHIA- DELAWARE VALLEY SFPE MEETING	9	10	11	12
13	14	15 BERKS COUNTY ASCET MEETING	16 DELAWARE ASCET MEETING	17	18	19
20	21	22	23	24	25	26
27	28	29 PHILADELPHIA ASCET MEETING	30	31		

JANUARY 1ST: NEW YEARS

JANUARY 2ND: NEW JERSEY ASCET MEETING

JANUARY 8TH: PHILADELPHIA DELAWARE VALLEY SFPE MEETING

JANUARY 15TH: BERKS COUNTY ASCET MEETING

JANUARY 16TH: DELAWARE ASCET MEETING

JANUARY 29TH: PHILADELPHIA ASCET MEETING



**Society of Fire
Protection
Engineers**

We're on the web at
www.sfpephiladelphia.org

PHILA-DELAWARE VALLEY SFPE

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someone@example.com mdslatcher@OliverFPS.com

MISSION STATEMENT

The Philadelphia/Delaware Valley Chapter purpose is to advance the science and practice of fire protection engineering and its allied fields, to maintain a high ethical standard among its members and to foster fire protection engineering education.

Recognition of fire protection engineering as a discrete engineering discipline is a prime goal. Engineering disciplines exist because there is a special body of knowledge based on the fundamentals of mathematics, physics, chemistry, engineering science and economics.