

PHILADELPHIA-DELAWARE VALLEY

FLASHPOINT



November Meeting

Special points of interest:

- Date and location of the 1st Annual PHI-LA-DELVAL Trade show has been determined!
- Location: Double Tree by Hilton in King of Prussia
- Date: April 27, 2017
- **MEETING DATE CHANGED TO, WEDNESDAY NOVEMBER 9**

Our November meeting will be a technical presentation on Transformer Fires.

PLEASE NOTE, DUE TO ELECTION DAY, THE NOVEMBER SFPE MEETING WILL BE HELD WEDNESDAY, NOVEMBER 9!

Our presenter will be Rick Schartel. Rick is retired from PP&L and a long time Chapter member.

Cost: \$25.00 for the program

Reservations: By 12 noon, Monday, November 7, 2016

Reserve with:

Jeff LaSalle by E-mail:

jlasalle@LaSalleEng.com



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President's Spark

We had our October meeting as a field trip to Independence National Historic Park on October 11, 2016. The speakers were Dawn Harrington, Safety & Structural Fire Manager and Vince Esposito, Fire Protection Engineer with the Nation Parks Service. The first field trip of the season was very well attended. Thanks to all of you who came. We have had great feedback from the meeting and will try to go on another field trip soon. It is great to mix things up a bit with new exciting events associated with fire protection. The meeting in November will be held at Jacobs as usual, but we will need to have a different date since the second Tuesday of the month is National election day and I am sure we will all be busy.

-Bob

Engineers' Club of Philadelphia

DELAWARE VALLEY ENGINEER OF THE YEAR

The Engineers' Club has opened the nomination process for various awards that will be presented during 2017 Engineers Week (February 17-25).

Nominations are now closed for the **Delaware Valley Engineer of the Year** honors. Voting will take place shortly. Societies that wish to participate in the voting should visit the Engineers Week website (www.dvewc.org) for more information on the number of delegates permitted and the voting process and deadlines. Voting will take place through an electronic method this year for the first time. Delegates' names will need to be submitted by the appropriate society by **November 4**.

Nominations have been received for three candidates as of the nomination deadline (October 21). Biographical information on the candidates will be posted on the Engineers Week website shortly.

Nominations for the **Delaware Valley Young Engineer of the Year** honors are being accepted. Specific requirements for candidates and nomination process/timeline are included in this [form](#). The deadline for nominations is **November 14**.

The successful candidates for Engineer of the Year and Young Engineer of the Year will be officially installed at the Engineers Week Luncheon, to be conducted on February 17.

Nominations for the Delaware Valley Engineering Hall of Fame, Outstanding Service Awards, Engineers Week Scholarships, Student Papers, High School Students and Teacher Awards are being accepted (more information and requirements can be found at www.dvewc.org). The deadline for Hall of Fame, Outstanding Service, Scholarship and Student Paper submissions is **November 16**. Nominations for High School Students and Teacher Awards are due by **December 7**. These awards will be presented during Engineers Week.



Engineers' Club of Philadelphia
Founded in 1877

TOWARDS FASTER WILDLAND FIRE SPREAD MODELS

By:

Alan

Lattimer, Ph.D. and Brian Lattimer, Ph.D. Jensen Hughes, Inc.

From firefighter safety to the mitigation of damages in the wildland-urban interface, situational awareness is critical to the management of wildland fires. Accurate predictions of the fire spread generated in better than real-time are critical to maintaining this awareness. However, wildland fires are large, multi-scale, complex phenomena that are affected by marginally understood or known factors such as the weather and fuel loading. Due to the scale of the problem, fire-spread models must simplify the physics or the scale to meet the real-time requirements for generating a prediction. A third option for reducing the computation time is reduced-order modeling. This article introduces the basic reduced-order modeling technique for fire-spread models and discusses the challenges and opportunities moving forward.

The modeling and simulation of wildland fires is a complex, multi-scale problem. Several fire-spread models (such as FARSITE) have been developed to provide operational resource management during fire outbreaks. Physics-based, large-scale models for predicting wildland fires, such as FIRETEC and WFDS, are useful for understanding the processes that drive the spread of wildland fires, particularly into the wildland-urban interface (WUI). However, the real-time requirements and limited on-scene computational resources often preclude their use as an operational tool. To reduce the time, level-set methods that track the fire front, such as WRF-Fire, are often used to produce real-time predictions. The spread of the fire in these models is typically based on the quasi-empirical mathematical fire-spread model given by Rothermel.

Mathematical model reduction is a method that is relatively novel in the wildland fire modeling community. Rather than removing the physics, changing the model, or reducing the solution domain, reduced-order modeling seeks to find the most relevant mathematical features of the original model and focuses the computational resources on solving that portion of the problem. In this way, the technique retains the most relevant features of the model. This technique has been avoided, in large part, because of the effort required to create the reduced-order model (ROM) along with the modest computational improvements due to difficulties reducing the nonlinear portions of the system. By addressing this issue, the ROM maintains a desired accuracy while being more efficient to solve. It is important to note that reduced-order modeling is not a new wildland-fire model, rather it is a technique that can be used to improve the computational efficiency of existing models.

For more information please see the attached link: http://www.sfpe.org/general/custom.asp?page=FPEExtraIssue10&_zs=5k01d1&_zl=IWJN3



FUTURE CITY® COMPETITION, PHILADELPHIA REGION

January 21, 2017 - Archbishop Carroll High School, Radnor, PA

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Society of Fire Protection Engineers, Philadelphia-
Delaware Valley Chapter

Timothy Haahs and Associates

Thomas and Julie Gennaro

2016-2017 Sponsorship Program

The Future City® Competition is a hands-on, real-world learning experience for middle school students to learn how engineers shape the world we live in today and tomorrow. Now in its 22nd year in the Philadelphia Region, we need your continued support.

Last year, with the help of our sponsors, we introduced over 600 middle school students at over 50 schools to the engineering profession. Costs to run the program continue to increase and we hope you will be able to increase your level of sponsorship this year so we can continue the high quality program we have provided since 1996.

To help support this educational program, complete the sponsorship form as soon as possible, even if you choose to be invoiced in January 2017, so that you can be properly acknowledged in our publications and on our web site.

Future City Philadelphia is a 501(c)3 outreach program of Discover E so your contribution is tax deductible to the extent the law permits.

We look forward to including your name in the list of sponsors for the 2017 program.



49% of Future City participants are girls. 33% of participating schools enroll at least 50% of students in a free lunch program.

"I love Future City. It makes my brain sweat!"

– Future City Student Participant

This Year's Essay Topic: Design a Future City that includes a distributed network of innovative, multiuse public spaces. Include two examples of how your city converted a roadway and either a brownfield or greyfield into a public space.

As always, we need many volunteer engineers to mentor the schools, judge and to keep things moving smoothly on Competition Day. Please encourage your colleagues to volunteer for the competition. Volunteers will need to sign up online at www.futurecityphilly.org.

Questions?

- Contact Jennifer Wetzel, Regional Coordinator at jwetzel@upenn.edu or 215-573-3935
- Visit our website: www.futurecityphilly.org, <http://futurecityphilly.org/Sponsorship.html>





FUTURE CITY® COMPETITION, PHILADELPHIA REGION

January 21, 2017 - Archbishop Carroll High School, Radnor, PA

2016-17 Sponsorship Form

\$10 – \$249: Friend Amount \$ _____

Name will be listed in the Competition Program and on our website

\$250 – \$499: Sponsor Amount \$ _____

Name will be listed in the Competition Program

Logo and link posted on website sponsor page

A Special Award will be presented in the sponsor's name

\$500 – \$999: Bronze Sponsor Amount \$ _____

Sponsor Level PLUS:

One-eighth page ad in the Competition Program (3-7/8" x 2-1/4" or Business Card)

\$1,000 – \$2,499: Silver Sponsor Amount \$ _____

Bronze Sponsor Level PLUS:

Corporate sign or banner will be displayed at the Regional Competition

One-quarter page ad in the Competition Program (3-7/8" x 4-7/8")

\$2,500 – \$4,999: Gold Sponsor Amount \$ _____

Silver Sponsor Level PLUS:

One-half page ad in the Competition Program (8" x 4-7/8")

\$5,000 – \$9,999: Platinum Sponsor Amount \$ _____

Gold Sponsor Level PLUS:

Full-page ad in the Competition Program (8" x 10")

\$10,000 and Above: Diamond Sponsor Amount \$ _____

Platinum Sponsor Level PLUS:

Give a 5 minute talk to the students at the Competition

**Pledges and ads must be received by January 13, 2017 to appear in the Competition Program.
Payment can be made now or in 2017 if desired.**

☐ Check enclosed ☐ Check to follow in mail ☐ Send an invoice now ☐ Send invoice in Jan 2017

Make checks payable to **Future City Competition - Philadelphia Region**

Name	Company
Telephone	Address
Email	
Sponsoring Organization or Individual (This is how it will appear on the award)	
Title of Special Award	

FOR FURTHER INFORMATION, CONTACT:

Jennifer Wetzel, Regional Coordinator

215-573-3935 – coordinator@futurecityphilly.org

SEND PAYMENT TO: Please note the new address!

Future City Competition, Philadelphia Region
c/o Helen Eck; 123 Sycamore Road; Havertown PA 19083
(610) 357-2656 (C), helenek7825@gmail.com



SFPE's Professional Development Week Starts Next Week--Are You Registered?

SFPE's Professional Development Week is fast approaching--have you gotten all of your PDHs to meet your licensing requirements for 2016? If not, don't delay--register today and let SFPE help you fulfill your 2016 professional development goals by registering now!

Professional Development Week Schedule

Date: Monday, October 31, 2016

Location: Rockville, MD

Seminar: Protection of Storage Occupancies - NFPA 13

PDHs: Earn 7 valuable professional development hours for attending the entire seminar

The objective of this one-day seminar is to provide participants with basic knowledge of the available technology and techniques for protecting these very challenging occupancies. This seminar will review the range of storage types and configurations that exist as well as emphasize the necessary prerequisite knowledge required to competently provide engineering solutions that are both sound in principal and practice while maintaining constructability. Current full scale testing, available modeling and actual events will be a part of this presentation.

Date: Tuesday and Wednesday, November 1-2, 2016

Location: Rockville, MD

Seminar: Application of Fire Risk Assessment

PDHs: Earn 14 valuable professional development hours for attending the entire seminar

This seminar is intended for fire protection engineers and individuals interested in the application of risk assessment in fire protection design. Those who would benefit from this seminar include fire protection and systems engineers, fire protection risk managers, insurance professionals, quality control engineers, architects and others interested in preparing fire risk assessment reports for application to buildings designs utilizing both performance-based and prescriptive code design methodologies. Experience in probability and statistics is not necessary, but helpful.

Date: Tuesday and Wednesday, November 8-9, 2016

Location: Rockville, MD

Seminar: Protecting Flammable and Combustible Liquids

PDHs: Earn 14 valuable professional development hours for attending the entire seminar

The objective of this seminar is to provide participants with basic knowledge of protection options available in NFPA 30—2015 edition and testing programs that may become the basis for future editions of NFPA 30. This seminar will give an overview of the latest NFPA 30 document, describe fire test results that have become requirements in NFPA 30, discuss current and future fire testing for protection of flammable and combustible liquids, and describe how to apply NFPA 30 requirements to two case studies involving storage of flammable or combustible liquids.

Registration Information

Complete details and registration information for Professional Development Week is available on the [SFPE website](#). Let us help you fulfill your professional development needs this fall—register today!

AIA CES Approved Provider



Friends of Independence
National Historical Park

■ 143 South 3rd Street
Philadelphia, PA 19106

■ tel: 215 861 4971

■ fax: 215 597 0073

■ e-mail: attn@friendsofindependence.org

■ web: www.friendsofindependence.org

October 13, 2016

Philadelphia-Delaware Valley Chapter
Society of Fire Engineers
c/o: Mr. Jeffrey LaSalle
LaSalle Engineering, LLC
1000 York Road
Willow Grove, PA 19090

Dear Mr. LaSalle,

On behalf of the Friends of Independence National Historical Park (Friends), thank you for your donation of \$250.00 in recognition of your tour at the Park and your tour guide, Safety Officer, Dawn Harrington.

For over 43 years, the Friends of Independence have been making a difference in our National Park by supporting the Park's mission to preserve and protect the nineteen square blocks that make up the most historic district in our nation. With the help of this generous donation those who visit Independence Park will enjoy its beauty and history for many years to come.

To learn more about our programs, please visit our website at www.friendsofindependence.org or call the Friends' office at 215-861-4971.

Thank you again for your generous support!

Best wishes,

Maiti Gallen
Program Director

Donor: Philadelphia-Delaware Valley Chapter, Society of Fire Engineers

Gift Date: October 11, 2016

Gift Amount: \$250.00

***Tax Deductibility:** \$250.00

*Based on acceptance of goods or services received in the consideration of contribution. Please retain this receipt for your tax records.

The Friends of INHP, a 501(c) (3) nonprofit organization, Tax ID 237179598, as requested by current tax laws, wishes to confirm that no goods or services were received in exchange for this donation and that contributions are deductible to the full extent of the law.

NOVEMBER 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 SOUTH NJ ASCET MEETING	3	4	5
6	7	8 ELECTION DAY	9 PHILA- DELVAL SFPE MEETING	10	11	12
13	14	15 BERKS ASCET MEETING	16 DELAWARE ASCET MEETING	17	18	19
20	21	22	23	24 THANKSGIV- ING	25	26
27	28	29 PHILADELPHIA ASCET MEETING	30			

MONTHLY EVENTS

- November 2: South Jersey ASCET Chapter Meeting @ Collins House
- November 8: Election Day
- November 9: Philadelphia –DelVal SFPE Meeting @ Jacobs Engineering 6PM
- November 15: Berks County ASCET Meeting Kutztown, PA
- November 16: Delaware ASCET Meeting @ Charcoal pit on Kirkwood Highway in Wilmington, DE
- November 24: Thanksgiving
- November 29: Philadelphia ASCET Meeting

PHILA-DELAWARE VALLEY SFPE

209 Mechanic St.
Doylestown, PA 18901

Phone: (215) 345-8066
Fax: (215) 345 9357
E-mail: dslatcher@OliverFPS.com



**Society of Fire
Protection
Engineers**

MISSION STATEMENT

The Philadelphia/Delaware Valley Chapter purpose is to advance the art and science of fire protection engineering and its allied fields, for the reduction of life and property losses from fire, to maintain high ethical standards on engineering among its members and to foster fire protection 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.

The chapter strives to facilitate sharing of sound engineering experiences and knowledge between its members and the fire protection community in general with an active program of education and scholarship activities.

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

Our October meeting was a change from our normal routine - a trip to the Independence National Historical Park. We were hosted by Dawn Harrington and Chapter member Vince Esposito. After learning about some of the fire safety challenges faced by the National Park Service we toured the Second Bank of the United States. There, we saw some of the equipment areas and talked about the fire they had in January 2015.

The building, which is considered a work of art, houses a permanent collection of 200 portraits and other objects. The smoke spread through the HVAC duct system to the main floor gallery. Major fire damage was limited to the air handling unit, but the smoke coated all objects throughout most of the building, including the portrait gallery, necessitating a building-wide cleanup, which kept the building closed for 18 months. This incident shows how even a small fire can have major consequences.

In a gesture of thanks our Chapter contributed a \$250 gift to the Friends of Independence National Historical Park. The organization's mission is "...to preserve and protect the nineteen square blocks that make up the most historic district in our nation". The balance of the money collected goes straight to the Chapter's scholarship fund. Thanks to all who attended.

-Jeff LaSalle