the Institute of Electrical and Electronics Engineers (IEEE).

THURSDAY - JUNE 15

FRIDAY - JUNE 16

(Endorsed by PEG & PEHE)

and commercial world

Participants will learn:

(Endorsed by PEHE)

The Ohio Society of Professional Engineers (OSPE) is proud to present this Conference –

with our Technical Society Partners, the American Society of Civil Engineers (ASCE) and

featuring 12.5 CPD hours, networking, entertainment and guest activities – in conjunction

Engineers and guests registered for the Conference are invited for networking and hors d'oeuvres.

National Anthem presented by Nathan Ogg, Assistant Music Director, The Alliance Chorus

Full Breakfast Buffet7:00 – 8:00 a.m.

How the Ohio Federal Research Network is helping to focus university research to better support Wright

"Are We Ready for Innovative Transportation?," by Deb McAvoy, PhD, PE, PTOE, Associate Dean for Academics,

The Ohio Federal Research Network supports research-oriented engineering and the technology readiness

The engineering opportunities and challenges that the aerospace establishment faces in both the military

Patterson Air Force Base, NASA Glenn as well as other federal and state institutions statewide

"Ohio Federal Research Network," by Dennis Andersh, MSEE, Executive Director, Wright State Research Institute

WELCOME



Dennis Andersh.

Deb McAvoy,

PhD, PE, PTOE

Michael DiBenedetto

A

m

A

FRIDAY - JUNE 16 (Continued) Participants will learn:

- · The DIAAT (Describe, Identify, Analyze, Assess, Treat) process used for performing safety analyses
- How to conduct an Operation Safety Assessment (OSA) using DIAAT process
- Key OSA components

Special quest speaker State Senator Joe Schiavoni (D-Boardman), Ohio Senate. Separate registration is required. Call 614-223-1144 for more information or to register.

Participants will learn:

Engineering and technology issues advancing in Ohio's legislature

Engineering and technology issues advancing in Onios registatore
Tech Tour: AEP Dolan Technology Center &
Distribution Training Facility (3.0 CPD Hours)
See tour description for details.
Presidents' Party: Dinner & Installation Ceremony 6:00 – 8:00 p.m.
Installing Officer: Tom C. Roberts, PE, F.NSPE, NSPE President-Elect. Entertainment: Blue Spectrum.
Hospitality Suite Open





OSPE Professional Interest Group Breakfasts (PEC, PEG, PEHE, PEI & PEPP) 7:30 – 9:00 a.m.

"Entrepreneurship - Lessons from Engineering," by Raymond Waite, Jr., MS, PMP, Founder, Lighthouse Force (Endorsed by PEC & PEG)

Participants will learn:

- How engineering skills can be put to good use in business endeavors
- To contain risk, use testing and feedback to guide progress and use critical thinking to avoid common traps
- How agile, lean development and design thinking skills apply to business decisions

OPTION A - "A National Roadmap for Materials Joining & Forming Technologies," by Tom McGaughy, BSc Mechanical Engineering, Director of Technology, Edison Welding Institute (EWI) (Endorsed by PEI)

- EWI's roadmap presents a national perspective on the status of materials joining and forming technologies The cross-industry canvassing methods employed in developing the roadmap, discuss the key needs identi-
- EWI's Grand Challenge initiative to address industry gaps and enhance U.S. manufacturing competitiveness

OPTION B - "Soil Stabilization, Fines Preservation & Dust Control for Unpaved Road Portfolio Management," by Steven Vitale, President, Midwest Industrial Supply, Inc. (Endorsed by PEG)

Participants will learn:

- With stagnating revenues and escalating costs, county engineers are pressured to address failing secondary
- When and where to use dust control options, fines preservation options, soil stabilization options

The anatomy of an autonomous vehicle control system architecture motivated by the biological central nervous system and psychological cognitive process



Raymond Waite In MS. PMP



Tom McGaughy, BSc Mechanical Engineering



Steven Vitale



OPTION B (Start of 2-hour session) – "Navigation: Principles of GPS." by Mike Braasch, PhD. PE, SMIEEE, Fellow U.S. ION, Thomas Professor of Electrical Engineering, Ohio University, Russ College of Engineering & Technology (Endorsed by PEHE)

Participants will learn:

- The roles of the satellites, monitoring network and receivers
- How measurements are formed and how position is determined
- The errors that impact performance

OPTION A – "What Lies Beneath: Preventing Groundwater Challenges From Exerting Havoc on Your Projects," by John Pitz, CPI, NGWAF, Owner & President, N.L. Pitz, Inc., Batavia, Illinois, and Former President, National Ground Water Association (Endorsed by PEC, PEG & PEPP)

Participants will learn:

- When working on well or pump failure projects, there can be frustrated professionals and clients • Engineers operate in the visible realm, but groundwater is unseen
- Greater awareness of the potential challenges presented by groundwater can save time and money
- The impact of design parameters on a project
- · When better communication between all project professionals can ensure a better outcome
- When to employ problem-solving skills beyond the troubleshooting matrix

OPTION B (Continuation of 2-hour session) – "Navigation: Principles of GPS," by Mike Braasch, PE

OPTION A - "Trenchless Installation," by Trygve Hoff, BSCE, PE, West Region Engineer, American Concrete Pipe Association (Endorsed by PEG)

Participants will learn:

- A growing segment of pipe installation includes trenchless applications and it's important to understand this competitive option as our nation's infrastructure approaches the end of its service life
- Design, equipment and installation
- Different types of trenchless technology and how they are used
- What design steps are necessary to complete a jacking or microtunneling project
- What equipment is most frequently used
- · How precast concrete pipe and concrete tunnel segments are being used to build massive tunnels
- A case study on trenchless technology being used to replace failing culverts

OPTION B - "Navigation: Principles of Inertial Navigation," by Mike Braasch, PE, Thomas Professor of Electrical Engineering, Ohio University, Russ College of Engineering & Technology (Endorsed by PEHE)

Participants will learn:

- How accelerometer and gyro measurements are processed to determine position, velocity and orientation
- How the curvature and rotation of the Earth impacts measurement processing
- How gravity and Earth rotation are exploited for system initialization
- The impact of fundamental error sources

Engineers and guests registered for the Conference are welcome.

THANKS, SPONSORS & ADVERTISERS*

A & A Engineering

American Electric Power

Auxiliary to the Franklin County Chapter of the Ohio Society of Professional Engineers

B S I Engineering, Inc. Daniel J. Lauletta, CLU®, ChFC®, LUTCF, CFP®, Financial Planner, Lighthouse

Wealth Solutions Kohli & Kaliher Associates, Inc. Matrix Technologies, Inc. Miami University, College of Engineering & Computing

Ohio Society of Professional Engineers, **Dayton Chapter**

Ohio Society of Professional Engineers, Franklin County Chapter

Ohio Society of Professional Engineers, Southwest Ohio Chapter

Ohio University, Russ College of Engineering & Technology Pennoni S S O E Group

Stantec Consulting Services, Inc. Terracon Consultants, Inc

TTL Associates, Inc.









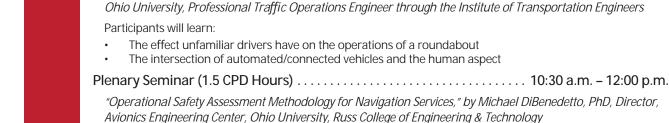




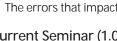


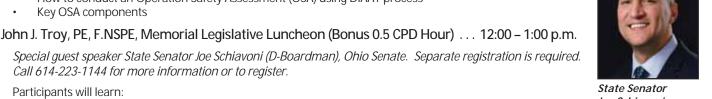


* As of date of printing



required for commercialization in six areas





Joe Schiavoni



Tom C. Roberts PE, F.NSPE

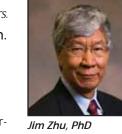


Engineers and guests registered for the Conference are welcome.

- fied by industry, and prioritize the research topics designed to address those needs

- Alternative solutions to maximize county budgets by categorizing and prioritizing road maintenance schedules
- Celebrate with the winners of OSPE's & EFO's top awards for engineers, OSPE chapters, students, educators and legislators.





FRIDAY: ENGINEERS' TECHNICAL TOURS (3.0 CPD HOURS)

Embark on a technical tour conducted by engineers. Program includes lecture and discussion. Wear comfortable shoes.

AEP's Dolan Technology Center and Distribution Training Facility are key assets allowing AEP to

perform research test equipment and train employees to work in the

increasing technology

rich environment of the modem electric utility environment. Both facilities are also used

by other utilities and outside companies to support their testing and training needs.

DOLAN TECHNOLOGY CENTER (DTC)

Participants will learn:

- The work in testing distribution line cover-up using DTC's 200 kV source and the mechanical testing of a ceramic string insulator
- Why corona free hardware is required for transmission lines that are energized above 138 kV
- To measure both the magnetic and electric fields and the effects on metal objects in these fields

The effects of having metal objects and/ or structures in close proximity to a 345 kV double circuit transmission line

DISTRIBUTION TRAINING FACILITY

Participants will learn:

- The engineers' development of the line mechanics' training
- Advanced distribution line training
- Distribution equipment with emphasis on distribution automation
- The engineers' involvement in safety and human performance in distribution training
- Interpreting OSHA requirements

FRIDAY: GUEST TOURS PACKAGE

AMERICAN

ELECTRIC

POWER

Guests (family and friends) may register for Friday and/or Saturday tour packages. Guest tours are not included in the engineer's packages. Underwriting courtesy of OSPE's Buckeye Chapter and professional interest groups. Wear comfortable shoes

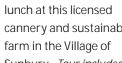
GOOD MORNING BUFFET

Enjoy the most important meal of your day at the Columbus Airport Marriott.

WORKSHOP & LUNCHEON

GLASS ROOSTER CANNERY

Bring simpler days back to life with a Water Bath Canning Jam workshop and a "farm to fork" cannery and sustainable



Sunbury. Tour included. Jam taste-test included. Bring home your own jar!

SHOPPING **POWELL**

Antique and gift shopping in this quaint community.



GLASS

ROOSTE

CANNERY

PRESIDENTS' PARTY

Dinner and installation ceremony at the Columbus Airport Marriott. Installing Officer: Tom C. Roberts, PE, F.NSPE, NSPE President-Elect. Entertainment: Blue Spectrum.

SATURDAY: GUEST TOURS PACKAGE

Guests (family and friends) may register for Friday and/or Saturday tour packages. Guest tours are not included in the engineer's packages. Underwriting courtesy of OSPE's Buckeye Chapter and professional interest groups. Wear comfortable shoes.

BREAKFAST

GOOD MORNING BUFFET

Breakfast at the Columbus Airport Marriott.

HISTORIC TOUR

ORANGE JOHNSON HOUSE

This beautifully appointed property portrays both the pioneer period and, with its Federalstyle addition, a more elegant lifestyle reminiscent of New England after the War of 1812. A guided tour

brings to life the Johnson family and the



SHOPPING

OLD WORTHINGTON & FARMERS MARKET

Although founded more than two centuries ago, Old Worthington's elegantly restored shops and eateries draw crowds with their small-town charm and unique offerings. Shop in more than 15 specialty stores for vintage and antique treasures, traditional art, letter press art, jewelry, personal care products, clothing, accessories, gifts, baby presents, decoratives, gallery furnishings, candles, wine and bakery goods. The Worthington Farmers Market is Central Ohio's largest. It boasts more than 70 local vendors. The market includes locally grown seasonal fruits and vegetables,

locally produced cheeses, jams, jellies, honey

and maple syrup, flowers, herbs, plants, homemade soaps and



LUNCHEON

THE WORTHINGTON INN

The Worthington Inn is a mainstay offering re-

fined fare, Victorianstyle décor and exceptional private dining, all in a historic 1831 landmark. A "recipe share" is included with lunch.



WORTHINGTON ARTS FESTIVAL & MCCONNELL ARTS CENTER

Held on the lawn at the Peggy R. McConnell Arts Center, this festival has been ranked in sales of fine art and craft in the U.S. by Art Fair

Source Book and among the top 200 shows in Sunshine Artist





2017 All Ohio Engineering Conference

Registration Form	
Name	
	NoYes, Member #
	NoYes, Member # _NoYes, Member #
Title	
Company	
Address	
City	State ZIP
E-Mail	
DayPh #	EvePh #
Your Guest's Name	
Emergency Contact Ph #_	

Fees	OSPE/ASCE/IEEE Member 30% discount	Enterprise Member 50% discount	Professional Nonmember	Gues Tours
Entire Conference	e □ \$389	□ \$278	□ \$556*	□ \$12
One Day-Friday	□ \$242	□ \$173	□ \$347	□ \$79
One Day-Saturda	ay □ \$183	□ \$131	□ \$262	□ \$59
Welcome Recept	ion 🛭 Free	☐ Free	☐ Free	☐ Fre
		d <mark>ay, June 8</mark> , add .	ees)\$ 20%\$ Total\$	
Undergraduate stude	ents, call 614-223-1	ر 1144 for reduced	oricing.	

Payment Options

☐ Check (payable: Ohio Society of Professional Engineers)			
<u>Or</u> □ VISA □ MasterCard □ AMEX Exp. Date:/			
Account Number:			
Cardholder Name: Security Code:			
Signature:			
Billing Address & ZIP Code:			

REGISTRATION INFORMATION

Four Easy Ways to Register

 Register online at www.OhioEngineer.com. 2. Return the registration form above to OSPE with your check or credit card information.

> Ohio Society of Professional Engineers 400 South Fifth Street, Suite 300 Columbus, Ohio 43215-5430



By registering for this program you acknowledge that your photographic image may be taken for publication purposes.

Recommended Attire

Business-casual is recommended for all events.

How You Will Benefit

This OSPE conference is worth up to 12.5 CPD hours (courses specifically designed for Ohio's design professionals) and includes most meals, entertainment, professional interest group meetings and OSPE & EFO Annual Member Meetings.

Professional's Entire Conference Package

The professional's entire conference package includes breakfast on Friday and Saturday, Engineers' Technical Tour, Presidents' Party, Awards Luncheon, and all meetings, seminars and on-site activities, except Friday's Legislative Luncheon, which is separate from the package. Call 614-223-1144 for tickets to the Legislative Luncheon.

by June 8

<u> Professional's One Day - Friday Conference Package</u>

The One Day-Friday Conference Package includes breakfast, Engineers' Technical Tour, Presidents' Party, and all meetings, seminars and on-site activities on Friday, except the Legislative Luncheon, which is separate from the package. Call 614-223-1144 for tickets to the Legislative Luncheon.

Professional's One Day - Saturday Conference Package
The One Day-Saturday Conference Package includes breakfast, Awards Luncheon, and all meetings, seminars and on-site activities on Saturday.

Great News for State Employees!

State of Ohio exempt employees are eligible for reimbursement on conference. seminar and training events through the Employee Development Fund. Visit www OhioEngineer.com and click on "All Ohio Engineering Conference" for a link. For more information, please call 1-888-577-6276 or e-mail edfunds@das.ohio.gov.

Download & Print Your Seminar Handouts

n keeping with technology trends and in an effort to conserve our environment, the handouts for this Conference will be available via Dropbox download only. If you vish to have a hard copy at the Conference, be sure to print handouts in advance.

Make your overnight reservations at the Columbus Airport Marriott by calling 1-800-491-5717 or 614-475-7551. To reserve your overnight room rate of \$109 plus tax per night, mention "Ohio Society of Professional Engineers." Rooms are being held at this rate for Conference attendees through May 26. Register early to ensure availability.

The Columbus Airport Marriott is offering complimentary parking for All Ohio Engineering Conference overnight guests and/or Conference participants.

Conference Cancellation Policy

Registrants may withdraw from the All Ohio Engineering Conference with full refund less a \$75 processing fee provided OSPE is notified in writing no later than Thursday, lune 8, 5:00 p.m. After that time, registrants are responsible for the full registration fee

Legislative Luncheon Registration

Separate registration is required for Friday's Legislative Luncheon hosted by the OSPE Political Action Committee. Call 614-223-1144 to register.

Continuing Professional Development Hours

OSPE programs are designed to meet the requirements for Ohio's continuing professional development (CPD) law and State Board of Registration for Professional Engineers and Surveyors (Board of Registration) rules. For Ohio licensees, the Board of Registration determines the acceptance of Individual courses for CPD credit. The Board of Registration does not preapprove any courses nor course providers. However, OSPE programs are designed to comply with the law in OH, KY, NC and WV. Be sure to consult those states' licensing authorities. The All Ohio Engineering Conference also meets continuing professional development (CPD) requirements in many other states. There are 12 CPD hours associated with this program, plus a bonus 0.5 CPD hour for those registering to attend the Legislative Luncheon. Professionals should only claim credit commensurate with the extent of their participation in the activity. Be sure to sign the attendance sheet at each CPD program so your attendance may be verified in case you are audited by the State.

Sponsorship Opportunities Are Available

For information, including details on complimentary registration benefits, download OSPE's 2017 Media Kit at http://ohloengineer.com.

Contributions, Gifts, Dues & Fees Contributions, gifts, dues and fees to the Ohio Society of Professional Engineers are not tax deductible as charitable

contributions. However, they may be tax deductible as ordinary and necessary business expenses. Please consult your tax advisor. Associate membership includes OSPE and chapter membership. Your dues deductibility is 23%.

Schedule and faculty are subject to change without notice. Attendee substitutions may be made at any time.



PALL OHIO ENGINEERIN

JUNE 15-17 • COLUMBUS AIRPORT MARRIOT

HOSTED BY THE OHIO SOCIETY OF PROFESSIONAL ENGINEERS

