

# OhioENGINEER

Volume 75/Issue 4

The Official Publication of the Ohio Society of Professional Engineers

2015

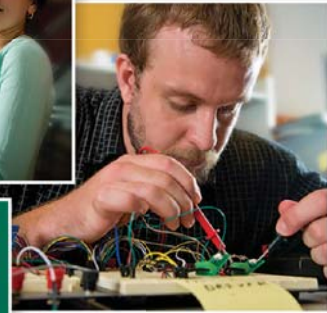
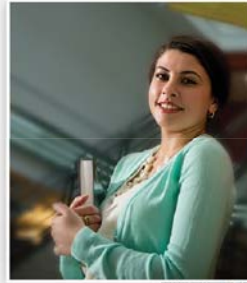
## Ohio engineering schools lead the curve



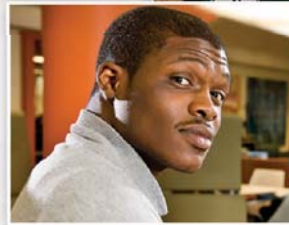
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*Also Inside:*

NSPE & OSPE defeat efforts to erode PE license



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The Ohio Engineer (ISSN 0194-9276) is published quarterly by the Ohio Society of Professional Engineers. **Postmaster:** Send address changes to Ohio Engineer, 400 South Fifth Street, Suite 300, Columbus, OH 43215. Annual subscription rate \$25 (included in OSPE membership dues). The Ohio Society of Professional Engineers is not responsible for the authenticity or accuracy of information provided herein. Published opinions and statements do not necessarily reflect the opinion of OSPE. Products and services advertised, other than those offered as OSPE member benefits, do not carry the endorsement of OSPE. Publisher reserves the right to decline any advertisement that is deemed inappropriate. The sales representative for Ohio Engineer does not have final authority to determine whether an advertisement may be placed in Ohio Engineer. The ultimate determination as to the appropriateness of any advertisement is subject to the discretion of the OSPE Public Relations Committee and the publisher acting in accordance with the guidelines established by OSPE.

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**LEADERSHIP VIEWS**

by *Devon Seal, M.B.A., P.E., President,  
Engineers Foundation of Ohio*



**A personal investment  
that pays big dividends**

I receive daily snail-mail, e-mail, voice-mail and Facebook requests asking for me to dump an ice bucket on my head, buy cookies and popcorn, donate to my alumni association or serve as a professional mentor. Like you, I encounter countless foundations, charities and religious organizations vying for my time and money. Important family and work commitments make giving a challenge.

Each year I sit down with my husband to budget the money we donate to charitable organizations and prioritize activities worthy of taking time away from work and family to pursue. For me, the Engineers Foundation of Ohio (EFO) is one of the very few organizations to make both lists. The reason is simple: EFO's mission is directly relatable to me and I have the opportunity to witness the results of my time and money in action.

When I think back on the personal experiences that led me to become a professional engineer, there are several things that stand out. First, I will credit my non-engineer parents who encouraged their daughter to pursue engineering -- even if that meant becoming experts on the viscosity of ketchup or drinking a little extra coffee to sit through interviews with engineering faculty. Second, as one of the younger members of Generation X, I had the privilege to participate in MATHCOUNTS. Also, my grade school science teacher and high school chemistry teacher let me see engineering as a real possibility for me, and college scholarships helped pay my way through school.

While I will never be able to pay back those that contributed to my development and success as an engineer, EFO allows me

to pay it forward.

Not all children are lucky enough to have non-engineer parents passionate enough about their child's future to research and promote a career in a field that was not familiar to them. However, the Imagine Engineering program exposes young children to engineering so that they learn what professional engineers do and get excited about engineering. Volunteering to speak to a second grade class requires about an hour of my time. It is extremely rewarding and some of the most fun I have all year. The students are so excited about engineering when I leave that it reinvigorates my love for the profession.

While I didn't recognize it as a student, I now understand the hard work that goes into running MATHCOUNTS. I do remember how honored I felt to represent my school in the premier middle school math competition and how much I enjoyed it. As a professional, when I volunteer a Saturday morning each winter, it is my way of ensuring the continued success of MATHCOUNTS so that perhaps one day my son might have the opportunity to participate as well.

As I reflect back on the professionals that valiantly kept a straight face while judging my ketchup race viscosity science project, I find it amazing how advanced some of the science projects are that I have the privilege of evaluating for EFO awards at Science Day! It is inspiring to see the new places the next generation of engineers is taking research, and I am honored to be a part of encouraging that innovation.

In June 2014 I attended EFO's 50th anniversary reception where a gentleman presented EFO with a significant donation. His extensive biography of engineer-

***While I will never be able to pay back those that contributed to my development and success as an engineer, EFO allows me to pay it forward.***

**Look for Engineers Foundation of Ohio dues check-offs on your NSPE/OSPE membership renewal.**



See "Investment," page 9

**On the cover:**  
Student engineers from Cedarville University competed in the 2015 Shell Eco-marathon in Detroit, Michigan. At the Detroit Auto Show, the "super mileage team" also showcased its Urban Concept car for NASCAR drivers Brad Keselowski, who drove Cedarville's car, and Joey Logano. The students came home with a championship and praise from the famous drivers. Photo credit: Cedarville University. See "Ohio Engineering Schools," page 6.

## LEADERSHIP VIEWS

by Tim Schaffer, Executive Director, Ohio Society of Professional Engineers



# ELI: This upcoming member benefit offers you much

I like to use this column to explore OSPE's membership benefits and Engineers Foundation of Ohio programs that offer OSPE members significant discounts.

In this issue I'd like to highlight an EFO event coming up soon – the Engineers Leadership Institute, February 5-6.

In its 48th year, the Engineers Leadership Institute (ELI) continues to lead the nation with the best in engineering leadership training. Our instructor, James Dalton, innovates the course every year with fresh, new material gleaned from the nation's top corporate, political and technical leaders.

I've seen "similar" courses sponsored by universities and for-profit out-

fits with price tags in the \$1,200-\$5,000 range in several other states. (And I use the word "similar" very loosely!)

But nowhere will you find this quality of course, especially at the OSPE member rate under the \$500 mark. Nowhere!

Just consult the evaluations from last year's ELI class:

- "Great tips to take back to my current job."
- "Effective and practical steps to persuade and lead others."
- "Great speaker; engaging stories."
- "Relatable to engineers. [Dalton] uses their terminology and thinking process to reach them on more abstract topics

such as leadership."

- "I have a clear plan on how to become an effective leader."

Why is ELI so inexpensive? We intentionally keep the price of admission low to encourage anyone who wants to attend to be able to attend.

While EFO could charge more to be competitive with those other out-of-state programs, I have to think that many of our enrollees would not be able to afford it.

Making lots of money off the backs of our professional engineers and students is not our mission.

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[www.uakron.edu/OhioEngineer](http://www.uakron.edu/OhioEngineer)

# Two engineering leaders pass in November

The Ohio Society of Professional Engineers' leaders and staff are sad to report the passing of two longtime members and friends, retired Brigadier General James M. Abraham, PhD, PE, and Stanley E. Koehlinger, PE, who both passed November 8.

An Athens native, **General Abraham** earned three degrees at Ohio University – a BSEE in 1943, a BSIE in 1948 and an honorary doctorate in 2015. A past president of OSPE, he held numerous patents, published three books and wrote columns for *the Columbus Dispatch*.



**Retired Brig. Gen. James Abraham, PhD, PE**

General Abraham enlisted and served in the Third Army during WWII under General George S. Patton, who presented him a battlefield commendation. His military career with

the Army and National Guard spanned 40 years. He served as Assistant Adjutant General of the Ohio National Guard and created a tuition grant program for National Guard soldiers.

General Abraham's many honors included the Legion of Merit, four bronze stars, three Army Commendation Medals, the Normandy Medal, the French diploma of appreciation, induction into the Ohio Veteran's Hall of Fame, graduation from the Army War College and the dedication of the Veteran's Military Student Centre on the Ohio University campus.

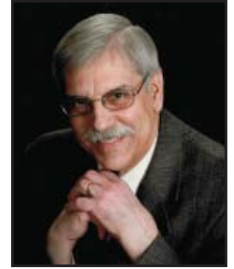
General Abraham is survived by his wife Irene, children Michele and Daniel, as well as their spouses, four grandchildren and other family.

**Stan Koehlinger**, who fought illness for five years, was a graduate of Purdue University. He owned and operated Koehlinger Engineering, a family business with wife Nancy and daughter Kristen. He was an affable and devoted

member of OSPE's Canton Regional Chapter, serving on its board for many years and serving four terms as its president.

In 2003, Koehlinger received the Canton Regional Chapter's Meritorious Service Award, which is given to a member who promotes the objectives of the Society. In 2011, he earned the Engineers Foundation of Ohio's President's Award. His passion for sharing the engineering profession with school children through various volunteer opportunities, including Imagine Engineering, made him a deserving recipient of these awards.

Koehlinger is survived by Nancy, daughters Kristen, Tricia and Stephanie, as well as six grandchildren and other family.



**Stan Koehlinger, PE**

## Welcome to our new OSPE members

OSPE is pleased to welcome these 91 new members from September 9 through December 16, 2015:

### **Akron District Chapter**

Mark A. Crissman, P.E.  
Amelia E. Dyck  
Dawn Grange, P.E.  
Jianying Hu  
Rami A. Nehme  
Robert H. Richey, P.E.

### **Dayton Chapter**

Shahd Almazroue  
Corey Bliss, P.E.  
Adam Burwinkle, P.E.  
Jeffrey Butler, P.E.  
Emily E. Diller  
Matthew D. Engel  
Nour Hanandeh  
Alexandra K. Heironimus  
John Kosina, E.I.  
Donald Meiring  
Sai Goutham Soma

### **Franklin County Chapter**

Nathan Abele, P.E.  
Sherri Babcock, P.E.  
Mark Bloomberg, P.E.  
Matthew Foreman, P.E.  
Brian Gillespie, PE  
Lisa Haas, P.E.  
Greg Hoge, P.E.  
Andrew Howley, P.E.  
Fred Klingelhafer, P.E.  
Terry Libby, P.E.  
Nathan Lord  
Justin S. Marcheskie  
Neil Mattison, P.E.

Uchenna C. Nwaichi  
Don Pahl, P.E.  
Brent Pettiford, P.E.  
James Rosebrock, P.E.  
Mark Seger, P.E.  
Rajat Shah, P.E.  
Nikolay Shatalov, P.E.  
Joshua R. Simmeron  
Tyler Smith  
Justin Stone, P.E.  
Roger K. Vandergriff  
Brian Varn, P.E.  
Angela M. Waters, P.E.  
Nathan E. Welling, P.E.  
Alex Yazdani, P.E.  
Harold Young, P.E.

### **Lima Chapter**

Reid Ponx, P.E.

### **Lorain Chapter**

Ronald A. Gibson, P.E.  
Joe Mandic, P.E.  
Timothy Plas, P.E.

### **Mahoning Valley Chapter**

Jacob Mellinger

### **Maumee Valley Chapter**

Ryan Birkemeier, P.E.  
Scott Birkemeier, P.E.  
Andrew Taylor  
Brian Wieland, P.E.

### **Northeast Chapter**

Kayla Frey  
Kevin Haley, P.E.  
Thomas J. Healey, P.E.  
Christopher Huhnke, P.E.  
Santhoop Kovoarayathu Sahadevan Pillai

### **Southern Ohio Chapter**

Jason Harral, P.E.  
Robert Heady, P.E., S.I.

### **Southwest Ohio Chapter**

Brian Jansen, P.E.  
Matthew Krause, P.E.  
Joshua M. Rexhausen, P.E.  
Jennifer Stenger, P.E.  
George Suckarieh, P.E.  
Ricardo A. Ugas

### **Toledo Chapter**

Yousef A. Alibrahim  
Eleanor O. Bettridge  
Jacob T. Bourque  
Muneeb Cheema  
Matthew K. Clayton  
Benjamin Cleemput  
Gerald Danes, P.E.  
Kevin Gast  
Brandon Grodi, P.E.  
Jacquelyn Hamill  
Jordan Keller  
David Kuhn, P.E.  
Jonathan A. La Course  
Mohammad B. Manneh, Sr.  
Zachary E. Mulder, P.E.  
Ian Murphy  
Amobi G. Ozioko  
Jared Tengesdahl  
Amy Zimmerman, P.E.

### **Tuscarawas Valley Chapter**

James R. Graham, P.E.  
Thomas Parnell, P.E.

### **Member At Large**

Ross J. Randazzo, P.E.  
Kris Schnitgen, P.E.

by Joseph V. Warino, P.E., P.S., F.NSPE, OSPE Vice President of Legislative & Government Affairs

# NSPE, state societies defend licensure in states throughout the nation

## *Working together to avert crises*

As 2016 begins, OSPE's Legislative and Government Affairs (L&GA) Committee is keeping "a close eye" on 17 active bills that directly impact the future for Ohio's PEs. I have heard overwhelming support for two of these Ohio bills. Therefore, we have provided proponent testimony at the Ohio Statehouse for House Bill 17, which would provide civil immunity for engineers volunteering services during a declared emergency, and for House Bill 236, which would require CPD hours in ethics and rules pertaining to the practice of engineering. *And today these Ohio bills are advancing forward!*

### Forecasting: Expect a busy 2016

With a recent flurry of legislative and government affairs activity in mind, I look for more of the same in the new year. My prediction for an active 2016 stems, in part, from my observation that other states' legislatures and governments around the nation have been busy making decisions that have an effect on the practice of engineering. In Ohio and a number of other states, the PE license is being threatened. This activity has commanded the attention of OSPE leaders here in Ohio.

### WV has experienced licensure erosion

The aftermath of the Elk River chemical spill in Charleston, West Virginia, perfectly demonstrates a successful effort to erode the PE license. The spill occurred when thousands of gallons of MCHM were released into the tributary of the Kanawha River in January 2014. There was no potable water for 300,000 residents.

Following the incident, West Virginia Senate Bill 373, the Aboveground Storage Tank (AST) Act, established a regulatory program that would require West Virginia PEs or individuals certified under a program approved by West Virginia Department of Environmental Protection (DEP) to perform inspections on above ground storage tanks, render opinions as to the tanks' structural integrity and certify their fitness for use.

The West Virginia Society of Professional Engineers (WVSPE) lodged an objection to non-PEs doing engineering work, including recommending modifications to tanks that would not pass certification otherwise. But the legislation was signed in March 2014 by West Virginia Gov. Earl Ray Tomblin. That summer, the state's Department of Environmental Protection (DEP) released an "interpretive rule" saying that while PEs are required for inspecting level 1 or "high risk" tanks, level 2 tanks, which still pose a risk but do

not qualify for the most rigorous inspection, and level 3 tanks, which hold water or food and pose a limited threat, may be inspected by the tank's owner or operator or by their designee.

In 2015, Senate Bill 423 amended the AST Act, but this new law, which awaits rule making, contains the same language that erodes the PE license, WVSPE President Chris Butler reported.

Butler said the situation is, "A great illustration of the real world need for professional engineering – and the government then eroded our license."

### Ohio is not immune to threats: OSPE fights bad piping legislation

Here in Ohio, we are busy fighting bad legislation that would eliminate the PE's discretion and mandate considering inappropriate piping materials in water, sanitary and storm sewer applications. House Bill 214, backed by the PVC pipe industry, would remove the PE's autonomy in design. It is not acceptable to mandate that a PE defend his or her professional judgment in disqualifying materials for the job at hand. This legislation would create liability problems for PE's and so OSPE has provided testimony in opposition to it. Similar legislation has been introduced around the country and has met large-scale opposition.

### OSPE speaks out against proposal that would undermine PE license

This past summer, there was a high level of awareness, interest and involvement among OSPE leaders with regard to proposed changes to the NCEES model law – changes that would create a protected structural engineering registration and drastically weaken the PE license. OSPE members spoke out and helped defeat this proposal at the NCEES Annual Meeting.

### Indiana PEs foil unwise proposal to eliminate licensure

Also over the summer, PEs learned



**The West Virginia State Capitol in Charleston.**



of a detrimental proposal put forth by the Indiana Job Creation Commission to eliminate the registration requirement of professional engineers. Working together, the Indiana Society of Professional Engineers and the National Society of Professional Engineers defeated the proposal. In testimony, ISPE Past President Scott Haraburda, PE, PhD, said, "I would feel unsafe crossing a bridge or entering a building not designed or inspected by a licensed engineer."

### NSPE works to bolster PE licenses in Colorado & California

Consider the August 2015 Gold King Mine waste water spill, during which three million U.S. gallons of toxic mine waste water and tailings were spilled into a tributary of the Animas River near Silverton, Colorado. This environmental disaster emphasizes the need to strengthen federal engineering standards. NSPE stepped forward to urge all federal agencies to require PEs on engineering projects.

In the Golden State, NSPE and the California Society of Professional Engineers have been working to ensure that the Department of Motor Vehicles develops regulations that recognize and incorporate PEs in the development of fully autonomous vehicles and their systems.

### You are needed

Our collective accomplishments would not be possible without the support of OSPE's membership. Your dues dollars and your voice are making a difference.

Thank you to the many members that have offered their opinions and provided me with the guidance needed to adequately represent you. Please continue to be vigilant, raise your level of awareness of actions that can impact the engineering profession and never hesitate to offer OSPE any insight or opinions. Your involvement will help shape the future role of the professional engineer.

**Editor's note:** Please see January's Legislative Alert e-newsletter for the fully detailed version of Vice President Warino's column.

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# OSPE tracks bills in 131st Ohio General Assembly

INFRASTRUCTURE BONDS, Senate Joint Resolution 3 (Schiavoni)	Proposing to enact Section 2t of Article VIII of the Constitution of the State of Ohio to permit the issuance of general obligation bonds to fund sewer & water capital improvements.	<b>Status:</b> Referred to Senate Finance, 9/15/15. <b>OSPE supports.</b>
OIL & GAS LAW, House Bill 8 (Hagan)	To revise provisions in the Oil & Gas Law governing unit operation, including requiring unit operation of land for which the DoT owns the mineral rights & to specify that the discounted cash flow formula used to value certain producing oil & gas reserves for property tax purposes is the only method for valuing all oil & gas reserves.	<b>Status:</b> Passed House (96-0), 3/18/15. 1st hearing in Senate Energy & Natural Resources, 4/14/15.
VOLUNTEER IMMUNITY, House Bill 17 (Blessing)	To provide civil immunity for architects, contractors, engineers, surveyors & tradespersons providing volunteer services during a declared emergency.	<b>Status:</b> Reported from Senate Civil Justice, 12/8/15. <b>OSPE supports.</b>
TRANSPORTATION BUDGET, House Bill 53 (Grossman)	To make appropriations for programs related to transportation & public safety for the biennium 7/1/15-6/30/17 & to provide authorization & conditions for the operation of those programs.	<b>Status:</b> Signed by Governor, 4/1/15.
CRIMINAL RECORDS, House Bill 56 (Schuring)	To limit the use of criminal records in the hiring & employment practices of public employers.	<b>Status:</b> Signed by Governor, 12/22/15. <b>OSPE opposes.</b>
BIENNIAL BUDGET, House Bill 64 (Smith)	To make operating appropriations for the biennium 7/1/15-6/30/17 & to provide authorization & conditions for the operation of state programs.	<b>Status:</b> Signed by Governor, 6/30/15.
SCHOOL BARRICADES, House Bill 114 (Roegner)	To require the Board of Building Standards to adopt rules for the use of a barricade device on a school door in an emergency situation & to prohibit the State Fire Code from prohibiting the use of the device in such a situation.	<b>Status:</b> Passed House, 6/24/15. Later, this measure was added to budget bill, which was enacted. <b>OSPE opposes measure.</b>
PIPING MATERIALS, House Bill 214 (Thompson)	To restrict when a public authority may preference a particular type of piping material for certain public improvements.	<b>Status:</b> 1st hearing in House Energy & Natural Resources, 6/9/15. <b>OSPE opposes.</b>
PROFESSIONAL ENGINEERS, House Bill 236 (Blessing)	To require professional engineers to complete continuing professional development hours in professional ethics or rules relevant to engineering or surveying practices.	<b>Status:</b> Reported from House Commerce & Labor, 12/1/15. <b>OSPE supports.</b>
WATER RESERVOIRS, House Bill 304 (Leland)	To eliminate law authorizing the maintenance of buffers around municipal water reservoirs by contiguous property owners.	<b>Status:</b> 1st hearing in House Local Gov't., 11/17/15. <b>OSPE supports.</b>
DWELLING EGRESS, House Bill 306 (Perales)	To require a separate, exterior means of egress for dwelling areas above the second story of certain residential rental properties & to provide a qualified immunity to landlords who in good faith comply with the requirement.	<b>Status:</b> 3rd hearing in House Commerce & Labor, 11/17/15.
ALGAE CONTROL, a.k.a. "Clean Lake Erie Act," Senate Bill 1 (Gardner)	To transfer the Agricultural Pollution Abatement Program from ODNR to the Dept of Ag, to require applicators of fertilizer or manure to comply with specified requirements, to create the Office of Harmful Algae Management & Response in the EPA, to establish requirements governing dredged material, nutrient loading, phosphorous testing by publicly owned treatment works & household sewage treatment systems, & to declare an emergency.	<b>Status:</b> Signed by Governor, 4/2/15.
TAX CREDITS, Senate Bill 12 (Hottinger)	To grant an income tax credit to individuals who earn degrees in STEM fields of study.	<b>Status:</b> Referred to Senate Ways & Means, 2/4/15. <b>OSPE supports.</b>
LAKE ERIE DISTRICT, Senate Bill 45 (Eklund)	To authorize the creation of a special improvement district to facilitate Lake Erie shoreline improvement.	<b>Status:</b> 2nd hearing in Senate Energy & Natural Resources, 3/17/15.
SEWAGE SYSTEMS, Senate Bill 58 (Peterson)	To authorize a property owner whose property is served by a household sewage treatment system to elect not to connect to a private, county or regional sewerage system under specified conditions.	<b>Status:</b> Referred to Senate Energy & Natural Resources, 3/4/15.
HOUSEHOLD SEWAGE SYSTEMS, Senate Bill 118 (Eklund)	To authorize a board of county commissioners or municipal legislative authority to elect to withdraw the county or municipal corporation from the application of any rule adopted after 1/1/14, by the Dept of Health governing the design of household sewage treatment systems.	<b>Status:</b> 1st hearing in Senate Energy & Natural Resources, 6/23/15.
CONTRACTOR LABOR, Senate Bill 152 (Uecker)	To prohibit a public authority from requiring a contractor to employ a certain percentage of individuals from the geographic area of the public authority for the construction or professional design of a public improvement.	<b>Status:</b> 2nd hearing in House State Government, 10/14/15.
BIDDING THRESHOLDS, Senate Bill 210 (Balderson), House Bill 333 (Schaffer)	To increase the monetary thresholds above which competitive bidding is required for township road construction, repair or maintenance contracts, & to increase the monetary thresholds above which a force account assessment is required for such projects.	<b>Status:</b> SB 210, referred to Senate State & Local Government, 9/15/15. HB 333, 1st hearing in House Local Gov't., 11/17/15.
ENERGY PLAN, House Concurrent Resolution 9 (Baker)	To establish a sustainable energy abundance plan for Ohio to meet future Ohio energy needs with affordable, abundant & environmentally-friendly energy.	<b>Status:</b> Passed Senate, 6/17/15.

# Ohio engineering schools lead the curve

Ohio's engineering schools are actively engaged in their communities and generally building or expanding their programs to meet the needs of their students and society at large. Read some of the highlights from the past year:

**Air Force Institute of Technology**  
*AFIT research and consultation*

A component of the Air Force Institute of Technology's (AFIT's) mission is to develop its students' understanding of their disciplines' principles and an appreciation of the most pressing unanswered questions. AFIT's research and graduate programs provide experiences that enhance its graduates' performance throughout their careers. This year, AFIT's research achievements include:

- a pod-based navigation system that determines positioning without using GPS thereby reducing adversary attempts to block GPS to Air Force aircraft,
- successful testing of new additive manufactured warheads that showed significant promise for future applications, and
- an interactive tool to assist aeromedical evacuation personnel in streamlining the patient load plan development process.

**Cedarville University**  
*Success in engineering competitions*

Cedarville University's engineering program prides itself on real-world experience for students. This was evident when three engineering teams attended national events and came home with two championships – and high praise from NASCAR drivers. At the Detroit Auto Show, Cedarville's Supermileage team showcased its Urban Concept car for Brad Keselowski, who drove the car, and Joey Logano. In June, the university's world-class solar splash team easily won its eighth world championship, and one day later, a team of freshmen and sophomore engineering students captured Cedarville's third consecutive championship in the American Society for Engineering Education (ASEE) Autonomous Robotics Competition. Learn more at <http://cedarville.edu>.

**Cleveland State University**  
*College of Engineering engages the community through Fenn Academy*

Last year, the Fenn Academy provided engineering activities for 1,205 area secondary students. The Academy – a consortium including Cleveland State University's Washkewicz College of Engineering, local school districts and industry partners – encourages students to pursue engineering careers. It strives to recruit students who are underrepresented in the engineering field and retain engineering graduates in the Northeast Ohio area. Academy programs include free on-campus activities, job shadowing and small grants for high school teachers wanting to engage students in engineering activities. Engineering faculty speak at area schools and consult with teachers on STEM curriculum development. Read more at <http://csuohio.edu/engineering>.

**Ohio Northern University**  
*New engineering education program is unique in nation*

Ohio Northern University's (ONU's) engineering education program has received its initial accreditation from the Engineering Accreditation Commission of ABET. ONU's program is the first of its kind in Ohio and one of the first in the nation. It is the only engineering program to



**Ohio Northern University's SAE Aero Design East competition team.**

be specifically designed to prepare future educators. This unique program allows students to pursue a core engineering curriculum along with the courses required to become certified to teach in high school.

In other news at ONU, U.S. News & World Report has listed the school as 39th among engineering schools with ABET-accredited programs whose highest degree is a bachelor's or master's.

**The Ohio State University**  
*Buckeyes take next step with prosthetic foot*

Six Buckeyes experienced a unique, global internship this summer in India conducting the rigorous engineering research necessary to improve the Jaipur foot – a low-cost, simple prosthetic – for



**At Cleveland State University, high school students participate in the VEX Robotics Competition, which is supported by the Fenn Academy.**

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## ENGINEERING EDUCATION & TECHNOLOGY

eventual mass production so it can relieve the suffering of amputees worldwide. During the 10-week research internship, Ohio State engineering students characterized the materials that make up the Jaipur foot, developed a test-fixtured capable of distinguishing acceptable materials, created the first computer model of the prosthetic and developed a database to track when it might fail.

The three-year, multi-university collaboration is supported by a National Science Foundation grant. Visit <http://go.osu.edu/foot>.



**OSU student Ingrid Huang measures a Jaipur foot to aid in the development of an appropriate test fixture.**

### Ohio University

**OU selected to host regional human-powered vehicle student competition**

Ohio University's Russ College of Engineering and Technology will host the American Society of Mechanical Engineers' 2016 Human Powered Vehicle Challenge (HPVC) East Competition this May. One of just two such events held in the United States annually, it will draw hundreds of college students from across the globe, including teams from Egypt, India, Puerto Rico and Canada.

After spending months designing and building three-wheeled recumbent trikes, student teams will face off in two events – a drag race and a 2.5-hour endurance course – that will test their teamwork and leadership while honing their technical skills beyond the classroom.



**OU chemical engineering juniors, Mira Cooper & Joshua Greenlee, use an ion chromatograph to study how scale forms within industrial boilers.**

### University of Akron

**UA students visit China for Global Summit**

Engineering student representatives from the University of Akron (UA) attended the 2015 Global Grand Challenges Summit in Beijing, China. The two-day event was held to prompt international

cooperation to creatively address some of the most pressing issues of our time, and students had the opportunity to learn from and interact with current and future academic and industry leaders.

UA's College of Engineering provides experiential opportunities, including trips to conferences and competitions, co-op education, student design teams and student organizations that allow students to grow as engineering leaders. Learn more at <http://uakron.edu/engineering>.



**A student from the University of Akron visits the Great Wall of China while attending the 2015 Global Grand Challenges Summit.**

must have qualified faculty, proper labs and teaching facilities and a continuous improvement process for the engineering curriculum. Accredited institutions must establish successful student outcomes and assess that graduates have successfully learned the material.

Mount Union's ABET-accredited engineering programs include hands-on real world engineering, required international engineering field experience, the integration of engineering knowledge and essential business skills, and the development of communication and leadership skills. Mount Union's accreditation retroactively applies to all previous graduates' degrees.

### University of Toledo

**UT students discuss sustainability, energy, health and infrastructure in China**

Students at the University of Toledo College of Engineering are engaged in engineering problem solving both locally and globally. Several students are working with United Way of Toledo to discover engineering solutions to problems created by poverty.

In September, students participated in the international conversation on advancing solutions to humanity's challenges at the 2015 Global Grand Challenges Summit in Beijing. Summit themes included sustainability, infrastructure, energy, health, education and security/resilience. While there, UT students networked with engineers, including Dan Mote, president of the National Academy of Engineering.



**UT engineering students attend the 2nd Global Grand Challenges Summit in Beijing.**

### University of Cincinnati

**UC co-op program puts students in touch with their future careers**

The University of Cincinnati's College of Engineering and Applied Science has been training students in professional engineering environments for over 100 years. UC's co-op program allows students to gain industry experience before graduation, preview their chosen career path and earn between \$40-60K while in school. Co-op employers benefit as they are able to train the next generation of engineers, garner fresh ideas from students and identify students who will make great employees. For more information, visit <http://ceas.uc.edu> and <http://uc.edu/propractice.html>.

### University of Dayton

**UD engineering plans for improvements**

The University of Dayton (UD) School of Engineering has completed a strategic planning process with faculty, staff, students, alumni and industry partners. The plan – aspects of which are still in the exploration stages and subject to board approval – calls for renovating Kettering Laboratories to provide better student work spaces, developing a business incubator to help bring student ideas to the marketplace, creating a global engineering master's program and providing lifelong learning platforms for alumni. Dean Eddy Rojas also wants to improve the flexibility of the curriculum so students can better explore concentrations and minors. For more information about the UD School of Engineering's strategic plan, visit <https://udayton.edu/engineering/sp/>.

### University of Mount Union

**Mount Union earns ABET accreditation**

The University of Mount Union's civil and mechanical engineering programs have received ABET accreditation. To receive accreditation, an institution

## STATE BOARD OF REGISTRATION NEWS

### In 2015, the State Board revokes a PE license, suspends two more and reaches five settlements

The Ohio State Board of Registration for Professional Engineers and Surveyors saw a busy 2015 wherein, among other things, it took the following actions:

#### Firms fail to disclose disciplinary actions

In four separate cases, the State Board of Registration said, a firm failed to disclose on an Ohio certificate of authorization application disciplinary action taken against the firm by another state board. In order to avoid further administrative action, each firm – United Consulting Group, LTD, in Norcross, GA, Tucker-Jones Engineers Associated, PC, in Birmingham, AL, Navitus Engineering, Inc., in Winchester, VA, and Tower Engineering Professionals, Inc., in Raleigh, NC – entered into a settlement agreement wherein the firm agreed to comply with the laws and rules governing the practice of engineering and pay a \$500 fine. In addition to the other terms of their settlements, two firms – Navitus Engineering and Tower Engineering Professionals – each received a reprimand.

A settlement agreement was also reached with Industrial TurnAround Corporation of Chester, VA. The State Board of Registration said the firm failed to report a disciplinary action taken when West

Virginia's registration board found that the firm offered and provided engineering services while its West Virginia license was expired. While the firm's settlement agreement with the West Virginia board included an \$800 fine, the Ohio settlement included a \$500 fine. The firm also agreed to comply with Ohio's laws and rules governing engineering practice.

#### Failure to complete CPD

The State Board of Registration reported that Michael D. Bechtel of Howell, MI, was found guilty of violating Ohio Revised Code (ORC) Section 4733.151 for failing to complete 30 CPD hours for 2012-2013. After reviewing the evidence and Bechtel's statements, the State Board of Registration suspended his PE license until such time he can show proof of obtaining the full 30 CPD hours that were required for those years.

#### Voyeurism

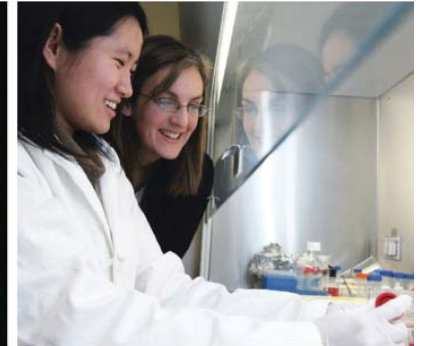
The State Board of Registration said that John Malivuk of Akron, OH, was found guilty of violating ORC Section 4733.20(A)(4), based on Malivuk entering a plea of guilty in Barberton Municipal Court to 12 counts of voyeurism under

ORC Section 2907.08.

The State Board of Registration suspended Malivuk's PE license for 18 months. Once his suspension has been served and he has been successfully reinstated, he will be placed on probation for five years.

#### Discipline in another jurisdiction

According to the State Board of Registration, Stephen P. Maslan of Kansas City, MO, had his Ohio PE registration revoked based on disciplinary action taken against him by the Missouri engineering board. Maslan was placed on probation in Missouri for violations of that state's practice act. While the terms of his probation required that he only practice engineering in areas of demonstrated competence, Missouri's board received complaints indicating that during his probation he had practiced outside of those areas. The State Board of Registration said that he also failed to include these projects on the projects list he was required to submit to the Missouri Board during his probation. The Missouri Board found he violated probation and revoked his registration.



## The University of Toledo College of Engineering

**Prestige:** Ranked 18th in the nation for graduate engineering programs by The Princeton Review and among the top 35 in the nation for its online graduate programs by the U.S. News and World Report.

**Impressive facilities:** A 40-acre, multi-building complex for education, research and commercialization.

**Quality students:** More than 3,100 undergrad and 360 graduate students among the best in their class.

**Quality faculty:** Over 100 faculty and staff who receive more than \$16 million in annual research funding.

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**Outreach:** Hosting hundreds of community events and speakers.

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Learn more by calling 419.530.8000 or visiting [eng.utoledo.edu](http://eng.utoledo.edu)



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## OSPE & EFO PROGRAMS

# Golf for a great cause on April 29

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Proceeds support EFO programs, which benefit school children, gifted teens, college engineering students and young engineers entering the profession. Register online at [www.OhioEngineer.com](http://www.OhioEngineer.com), or call 614-223-1177 or 1-800-654-9481.

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From "Investment," page 1

## OSPE's Political Action Committee plans for 2016

The OSPE Political Action Committee (PAC) is considering political candidates for endorsement for the 2016 general election. OSPE members may make recommendations to any PAC officer, including Chair Rich Henry, PhD, PE, Vice Chair Fred Tito, PE, Secretary Jeff Kennedy, PE, or Treasurer Leon Winget, via 614-223-1144. Also, thank you to the following 2015 PAC contributors:

John Banton, PE, F.NSPE, Joe Cherry, PE, G. Kenneth Copella, PE, L. Steve Day, PE, David Dexter, PE, F.NSPE, Ronald Eifert, PE, Randy Fobell, PE, Billy Friar, PhD, PE, Al Fullenkamp, PE, PS, Robert Fuller, PE, F.NSPE, Otto Gerdeman,

Jr., PE, Tony Grgas, PE, Wayne Grilliot, PE, John Gulasy, PE, Thomas Hay, PE, Richard Lee Henry, PhD, Harry Hutter, PE, Richard Dennis Irwin, PhD, PE, Rich Irwin, PE, Howard Jones, PE, F.NSPE, Paul Junk, PE, James Kearns, PhD, PE, Randy Keitz, PE, Raymond Knapp, PE, Roger Kolloff, PE, D. Bruce Larcomb, PE, PS, William Lhota, PE, Michael Lippert, PE, Owen March, PE, Jan Menuez, PE, James Montgomery, PE, Nils Nilsson, PE, F.NSPE, Roger Osborne, PE, Doreen Rhineberger, PE, Walter Roehrs, PE, F.NSPE, Scott Sands, PE, F.NSPE, Edward Schlaack, PE, James Schmenk, PE PS, Devon Seal, PE, Robert Seaman, PE, James Stump, PE, David Timmer, PE, Fred Tito, PE, F.NSPE, Jorge Villacres, PE, Joe Warino, PE, PS, F.NSPE, Rodney Wilson, PE, Leon Winget, PhD, PE, F.NSPE, and Larry Alan Young, PE.

ing accomplishments was read and, when he was asked to speak, he recalled the EFO scholarship that he had once received and how it enabled him to obtain his degree. Later that same weekend, as I sat at the awards lunch with the 2014-2015 scholarship winners, I wondered who among those aspiring, young engineers would seize the opportunity to accomplish as much as our gracious donor and would do so, in part, thanks to our scholarships.

I would bet that some of how I feel about the Engineers Foundation of Ohio rings true with you too. I assure you: Every hour spent in service to this organization is fulfilling. No monetary gift is too small to make a difference.

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