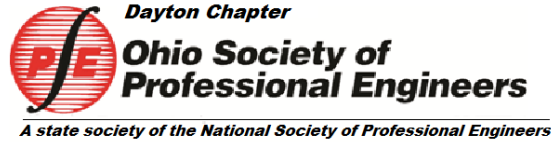


DAYTON SOCIETY OF PROFESSIONAL ENGINEERS

THE DAYTON ENGINEER

VOLUME 5, ISSUE 5

01 MAY 2014



DSPE MAY 2014 BOARD MEETING—13 MAY

The 13 May 2014 DSPE Board Meeting will be held from 5:15 to 6:30 PM at the Wright State University Engineering and Computer Science Dean's office conference room.

DSPE ANNUAL ELECTIONS THIS MONTH—SEE INSIDE LEAF

The 2014-2015 Dayton Society of Professional Engineers (DSPE) Chapter Board of Directors election will be conducted during the month of May. The election ballot can be found as an insert in this issue and will be sent to members via snail mail for those who do not have email connectivity. Please help support your chapter by returning your ballot as soon as convenience allows using the return directions on the ballots. Thank you for your participation and support!

DSPE 22 MAY 2014 CHAPTER MEETING: NOTE DATE CHANGE!

Our May chapter meeting date has changed to 22 May. This joint meeting with ASCE will be held at the Presidential Banquet Center, 4572 Presidential Way, Kettering, OH 45429, from 12:00 Noon until 1:00 PM. **Mr. John Fraenhoffer P.E.**, will present "Forensic Engineering and the state of ASCE Region 3". He will present the practices of Forensics Engineering through case history presentations on bridges, buildings, retaining walls and pipelines and will include problem statements, analyses, resolutions, and legal proceedings. He will also discuss the state of ASCE's Region 3. Mr. Fraenhoffer is the Governor for ASCE's Region 3, and the Senior Structural Engineer with Engineering Resource Associates, Inc., in Champaign, IL. His is also a Past Chairman of ASCE's Technical Council on Forensic Engineering and ASCE's Committee on the Dissemination of Failure Information, on that Council. He is also an Editorial Board Member for the Journal on the Performance of Constructed Facilities, as well as a Past Board Member on the Architectural Engineering Institute. Attendees will receive 1 Professional Development Hours (PDH) for full attendance. The cost is \$20 for members, \$30 for nonmembers, and \$10 for students. A sit-down luncheon (Chicken Divan) will be served at noon; program will follow. Please phone your reservation by 16 May to Ed Schlaack, 937-781-2632, or email: schlaack@mcohio.org.

HELP! NEED OSPE MEMBERS AND OFFICERS

We have a current need for volunteers to join the OSPE PAC as members and officers. Any contributor to the PAC is automatically a member and eligible to hold office. Elections will be held at the annual PAC meeting, which will be held after the Legislative luncheon at the Spring CPD Conference in Toledo in June. You do not need to be present to win, but should submit nominations to OSPE President, Fred Tito, prior to the annual meeting so that a ballot can be prepared. Everyone is invited and encouraged to attend the conference, which will also host the OSPE and EFO annual meetings as well as the PAC meeting.

UPCOMING OSPE CALENDAR EVENTS/DEADLINES

May

2-30 May—DSPE Chapter Elections. Look for ballots in the May Newsletter.

8-11 May—National MATHCOUNTS Competition in Orlando, FL.

June

12-14 June, OSPE Spring CPD Conference will be held at the Park Inn Toledo, in Toledo, OH. Worth up to 12.5 CPDs for full participation. Special Event: EFO's 50th Anniversary Reception—details to come.

ON THE LIGHTER SIDE OF THE SLIDE RULE! [COURTESY *ENGINEERING DAILY*]

Geeky Gifts for Engineers: Flying Alarm Clock—When the alarm sounds, a detachable toy helicopter detaches from the clock and navigates around your room; the only way to turn off the alarm clock is to put the helicopter back into its dock on the clock.



Engineering-Oriented Movies: “Flight of the Phoenix, starring Jimmie Stewart, along with a top notch cast is an engaging story about a group of men stranded in the desert and how they ‘engineer’ a way out. Picture this interesting premise: a cargo plane goes down in a sandstorm in the Sahara with less than a dozen men on board. One of the passengers is an airplane designer who comes up with the idea of ripping off the undamaged wing and using it as the basis for an airplane they will build to escape.”



Engineering-Oriented T-Shirt: “Engineer’s Motto”

DSPE OFFICIAL BALLOT 2014-2015

POSITION	NOMINEES	VOTE
PAST PRESIDENT	Vanessa Glotfelter, P.E.	
PRESIDENT (vote for 1)	Steve Schultz, P.E., P.S.	
VICE-PRESIDENT (vote for 1)	Winn Holcombe, P.E.	
SECRETARY (vote for 1)	Ken Hemmelgarn, P.E.	
TREASURER (vote for 1)	Joseph R. Pokorski, P.E.	
STATE DIRECTOR	James Montgomery, P.E.	
DIRECTORS (vote for 3) to Begin 1st of 2 Year Term	Paul Gruner, P.E., P.S.	
	Richard Henry, PhD, P.E.	
	Jon Wheeler, P.E.	
	(or write in)	
DIRECTORS Serving Second Year of 2-Year Term	Lisa Helmstetter, E.I.	
	Aurea Rivera, P.E.	
	Taylor Van Vliet, E.I.	
VOTER'S NAME		
NSPE MEMBER ID#		
PLEASE VOTE BY MAY 30, 2014		
Vote by FAX:	(937) 781-2632 ATTN: Ed Schlaack	
Vote by E-MAIL:	montgomeryj@ameritech.net	
Vote by MAIL: return ballot to	DSPE 2014-2015 Ballot 4367 Sillman Place Kettering, OH 45440	

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Issue 1 works for all



Phillip L. Parker
CAE, CCE President & CEO

This upcoming election on May 6 will have a number of interesting and diverse items on the ballot, none more bipartisan than Issue 1, the Building Strong Ohio Communities capital improvement bond initiative.

First giving approval in 1987, Ohio voters have twice renewed this infrastructure bonding program in 1995 and again in 2005. It's now on the ballot for Ohio voters' consideration again. Many citizens may not follow this issue closely, but those who are involved in decision making on our local streets, storm water sewers, bridges and other community improvements know it well - as

does your area Chamber of Commerce.

Issue 1, placed on the ballot by a joint resolution of the Ohio General Assembly, will authorize, if passed, \$1.875 billion in bonds to be shared and leveraged with local governments for a variety of ongoing community infrastructure improvements. Every local government from the smallest village to the largest city has the ability to request funding if its project meets key criteria. Local communities must have "skin in the game" and leverage their own resources with those passed down to their counties and/or regions by the state of Ohio.

This is not requiring an additional tax. These bonds are repaid out of the state's general fund each year and have been for the last 27 years. It's a win-win-win for local governments, neighborhoods and businesses that each rely on these re-

sources to help fund projects that improve their streets, roads and sewers. To date, more than 11,500 projects in Ohio have been completed using these state infrastructure resources.

Over the years, Montgomery County has leveraged more than \$250 million; Greene County \$65 million; Clark County \$42 million; cities like Dayton \$56 million; Kettering \$8 million; Trotwood \$10 million; Beavercreek \$3 million; and Troy \$4.7 million.

Our citizens expect their governments to take care of their infrastructure needs through the taxes they pay. So do businesses. The chamber vetted this issue once again and found it to be a good use of resources to effectively keep our local infrastructure needs maintained. For that reason, we have agreed to endorse Issue 1 and recommend its passage on May 6.

There are times when business and government critically debate issues like this and at times fail to agree and support an issue concerning the spending of our public assets. But Issue 1 is a program both business and government can join together to support. Partisan politics aside, both Democrats and Republicans can support this issue too and are doing so.

If you believe that local government can make many decisions better than by those agencies dramatically removed from your hometown, then you should consider supporting this ballot initiative because your local elected leaders play the most important role in deciding how this money is spent.

Issue 1 has worked for all of us in Ohio since 1987 and deserves our continued support going forward. We recommend it for your consideration.

Courtesy Dayton Daily News, April 27, 2014

Your Chapter Board would appreciate your support for Issue 1.



Fact Sheet

On May 6, voters will decide whether to approve Issue 1, renewal of the State Capital Improvements Program which has helped local communities all over Ohio complete 11,500 road, bridge, sewer and other infrastructure projects over the last 27 years. Here are key facts about the program.

27 years of success helping local governments

- More than 11,500 local road, bridge, sewer, water and solid waste projects have been completed under the program.
- Projects completed in all 88 counties.
- See <http://www.pwc.state.oh.us/AssistanceHistory.html> for complete list.
- Issue 1 extends the program 10 more years, authorizing \$1.875 billion in infrastructure aid for local governments.
- Issue 1 approves \$175 million a year for five years, then \$200 million a year for five more years.
- Grants are up to 90 per cent for repair/replacement projects, 50 per cent for new projects.
- Objective allocation process makes sure all Ohioans benefit.

No increase in taxes

- Funds to repay Issue 1 are already built into planning for future state budgets.
- Ohio's high financial rating makes renewal and a modest expansion of one of Ohio's most successful programs possible.

Issue 1 provides jobs

- The program has created tens of thousands of jobs in 27 years, and Issue 1 will provide an estimated 3,500 more construction and allied jobs over the next decade.
- By improving roads, bridges, sewers and other facilities, Issue 1 improves job climate, quality of life for all Ohioans.

Strong tradition of bipartisan support

- The Issue one capital improvements program is an enduring success for our state. First passed in 1987 and renewed again in 1995 and 2005, it has stood the test of time.
- Democrat and Republican mayors, county engineers, township trustees and leaders of both business and labor all back Issue 1.
- The vote to put Issue 1 on ballot was 31-0 in Ohio Senate, and 90-2 in Ohio House.

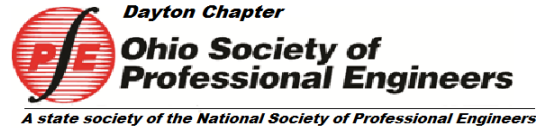
For more information: www.Strong-Ohio.com

DAYTON CHAPTER—OHIO
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Kettering, OH 45440-1140

Phone: 937-225-6040
Fax: 937-496-7441

WE'RE ON THE WEB!
WWW.DSPE.ORG



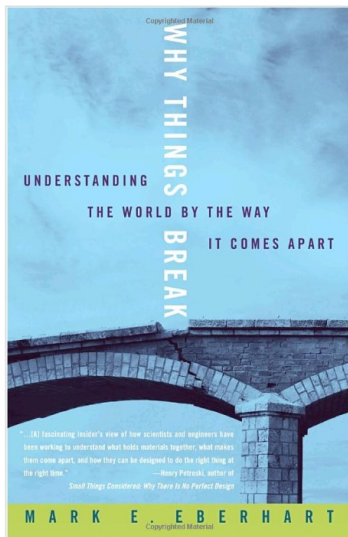
OSPE is dedicated to the advancement of professional engineers in Ohio and is the single most powerful voice representing all disciplines within the engineering profession. The Dayton Society of Professional Engineers, is a chapter of the OSPE serving the local Dayton Area. DSPE aspires to conduct a monthly chapter luncheon meeting that will serve our membership by providing an opportunity to come together to share professional experiences, to network, and to gain continuing professional development through interesting presentations on a variety of technical, management, and ethics topics on all engineering disciplines.

FINANCIAL CONTRIBUTIONS TO HELP MEET CHAPTER MISSION



Our chapter activities are focused on youth education and scholarships and include 2nd Grade Coloring Contest via *ImagineEngineering*, and Middle School MATHCOUNTS. These are our Society's flagship events to bring to our youth an awareness of the value of science, technology, and especially the engineering profession. But they do not happen on their own. It requires hands-on participation and financial contributions from our members, that's you and me. Your personal and corporate financial contributions are solicited through our Engineers Foundation of Ohio (EFO) to help us host these events on a local, state, and national level (except for the coloring contest). Please consider making a personal contribution and soliciting from your company, if they have a community relations department. Contributions through EFO are fully tax-deductible. Please contact us for the tax ID number for your records. Even more important for the success of these events is your hands-on participation. Please contact a board member for opportunities.

BOOK REVIEW: "WHY THINGS BREAK*", BY MARK E. EBERHART



[From <http://www.Amazon.com>] “**Understanding the World by the Way It Comes Apart*”. From Booklist: “In materials science, nothing succeeds like failure, for it prompts discovery of what caused a disaster. In trying to understand why things break, scientists like Eberhart know that a fracture starts at the level of atomic bonds, but determining precisely what forces a bond to break remains a mystery. Shake-and-bake metallurgy and glass manufacturing has taken technology pretty far, furnishing us with jet turbines and Corningware galore, but, as Eberhart explains, making engines even more powerful and ceramics more fracture resistant runs into roadblocks at the quantum-mechanical scale. Atoms drift around, making material more brittle, and bonds stretch and bend in certain angles, all aspects of the fracture problem that Eberhart has investigated. He translates the technicalities of this field into accessible layperson's terms, aided by autobiographical excursions into his experiences with research funding, and with the public's generally deficient appreciation of technological risk: nothing is unbreakable, though we (or tort lawyers) demand that everything should be so. A

very readable work for technology buffs, especially those who enjoyed Edward Tenner's *Why Things Bite Back* (1996).” —Gilbert Taylor