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Ohio Society of Professional Engineers

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PRESIDENT'S MESSAGE

By Howard Jones, P.E. / FCC President



Franklin County Chapter had ten schools participate in the "Imagine Engineering Coloring Contest" (coloring contest for 2nd grade students). Although we have done this for many years, this was the first year for several of our members to participate,

including myself. It was an exciting and rewarding experience. The students were very excited and really enjoyed it. Consider volunteering for this program next year. I know you will enjoy it.

The PEI New Product award application information details are included in this issue. If your company qualifies, please submit your application to Pam McClure admin@ohioengineer.com.

This month is very active for our Chapter.

The Regional MATHCOUNTS competition is being held on Saturday, February 19th at Columbus State Community College. This is an exciting math competition held among 6th, 7th and 8th grade students. We have 39 schools, 310 students registered. Eighty or more volunteers are needed for grading and proctoring at the competition. No experience is required. To volunteer your services, contact "Joe Bolzenius" jbolzenius@dynotecinc.com College students can also be involved, so if you know some students invite them to participate.

The "Engineer for a Day Program" is where junior and senior high school students spend the day with an engineer in industry, government or a consulting firm. This program is scheduled for February 23rd. If your company wants to participate, please send an email to our Administrative Assistant, "Nancy Mergel" ospefcc@aol.com.

(Continued on page 2)

Engineers Week Luncheon

- DATE:** Thursday, Feb. 24, 2011
- PLACE:** The Bridgewater Conference Center
10561 Sawmill Parkway
Powell, OH 43065
- TIME:** Registration: 11:30 am
Lunch: 12:00 pm
- COST:** \$25.00 Pre-Registered/Pre-Paid
Students FREE - Bring Your Resume
\$35.00 at the door (depending on availability,
walk-ins may not be accepted)

Lunch choices include: slow roasted chicken breast or roasted pork loin. (Vegetarian choice available upon request.) Indicate your meal selection upon registration.

Register by Wednesday February 16 online at www.ohioite.org or by contacting Paul Denny at Barr & Prevost (pdenny@barreng.com; call 614-714-0270. Pay in advance via credit card (online) or by sending a check to Paul Denny, Barr & Prevost, 2800 Corporate Exchange Drive, Suite 240, Columbus, OH 43231.

SPEAKER: Terry Foegler, Associate Vice President, Physical Planning and Real Estate, The Ohio State University

PROGRAM: Mr. Foegler will highlight the new approaches to the planning and development of The Ohio State University

Presented by ASHE, APWMA, ASCE-Central Ohio Section, Engineers Club, IEEE, ITE-Ohio Section, OSPE-Franklin County Chapter, WTS-Columbus Chapter and SME.

(Presidents Message continued from page 1)

Franklin County Chapter is one of nine sponsors for the “Engineers Week Luncheon”. The luncheon will be held on Thursday, February 24th at the Bridgewater Conference Center in Powell, Ohio. Speaker is Terry Foegler, Associate VP, Physical Planning and Real Estate, OSU. See registration details in this issue.

We will have a table at the “Engineers Week Luncheon” and will have available PE License Plate Frames for a donation of \$5.00 each. Securing these at the luncheon saves you the additional cost of shipping and handling.

Franklin County has received 15 scholarship applications. These will be reviewed and graded this month. If you wish to participate in this process contact Joe Sullivan joe.sullivan@stantec.com

Although Franklin County Chapter has gained several new members, we need to continually encourage our brother and sister PE’s to join this three tier organization of NSPE/OSPE/FCC. Remember, the OSPE Legislative Committee and staff is a watch dog for new and revised legislation that impacts registered engineers.

As a sponsor for a new member you can earn a reduction in fees for CPD hours offered by OSPE or other OSPE member benefits.

I am requesting all Chapter members to encourage a non-member to join the three tier organization, NSPE, OSPE and FCC. When they join give them a free “PE License Plate Frame” and an “FCC Ballpoint Pen”.

I look forward to seeing you at the “Engineers Week Luncheon”.

Imagine Engineering Coloring Contest

The Imagine Engineering program is presented each year to a number of second grade classrooms around Central Ohio. Shown in the picture is Howard Jones and Steve Day presenting the Imagine Engineering program, “Not all engineers drive trains”. Steve and Howard presented the programs at Avery Elementary School and Maybury Elementary School. A total of more than 150 students participated in the program at the two schools.



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who contributed at all levels.**

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8 Common Pitfalls Presenters Make[®]

By Patrick J. Donadio, MBA, CSP, MCC

My first “paid speaking engagement” in 1986 was a disaster! Here is what happened. As they read my introduction I began to feel myself getting more and more nervous. By time I got up to speak, I was so nervous I forgot my opening. Next, I had memorized my speech and half way through lost my place. Luckily for me I had a copy of my script with me. So I ended up reading the rest of the speech from my notes. This caused me to have poor eye contact with the audience and in turn made me even more nervous and flustered. It got so bad that I abruptly ended my talk and forgot to close the speech. What a nightmare!

I learned a lot from that first speech... all the things not to do. Over the years I have seen many of my presentation skills coaching clients make similar mistakes. In order to help you become a better presenter I have compiled a list of the most common mistakes presenters make. Avoid these like the plague and you will be on your way toward being a better speaker/presenter:

1. **Trying to imitate someone else.** Be your unique self!
2. **Failing to project a sense of confidence.** By talking too fast or slow, too loud or soft, having poor eye contact, or reading word for word ... Confidence is visual. Portray it through your voice, eye contact, mannerisms, gestures and body language. **Confidence is not how you feel, it is how you look!**
3. **Speaking down to the audience.** Speak with the audience not to them. Be careful of using jargon/technical terms or having a superior attitude.
4. **Neglecting to prepare enough supporting information.** Many presenters fail not because they lack facts but because facts are all they have. Incorporate stories, human experiences, quotes and statistics to keep your audience’s interest.
5. **Lacking a dynamic opening and closing.** The first and last things you say are very important to the success of your presentation. Try to avoid the following:

IN OPENINGS AVOID

- An apology - the audience doesn’t know what your problems are so why tell them.
- The trite comments – “Hello my name is.... and I am going to talk about.....” (They are almost asleep by now...). Open with something different, unique and attention getting!

IN CLOSINGS AVOID

° Abrupt endings – Just stopping or saying “Well that is all I have to say...” Be sure to come prepared with a closing and then announce your close so people are ready to hear it.

6. **Failing to rehearse.** Work out the kinks before you present. Rehearse out loud. If not, your presentation becomes the rehearsal. Rehearsing also helps boost your confidence.
7. **Memorizing your speech word for word.** It’s okay to memorize your opening, closing and quotes but not your whole presentation. As comedian George Jessel said “*The mind is a wonderful organ, it begins working the day you are born and doesn’t stop until you get up to give a speech*”.
8. **Forgetting to involve the audience.** Involve your audience mentally, physically and emotionally. If you don’t tune them in, they will tune you out.

© Copyright - Patrick Donadio, MBA, CSP, MCC is a Certified Speaking Professional (CSP) and Master Certified Coach (MCC). He specializes in Business Communications and Leadership Development. Donadio shows leaders and their organizations how to **increase profits, improve presentation/verbal communications, enhance their credibility, deepen relationships and boost performance — in less time.** To book Patrick for your next conference, seminar or retreat; or to hire him as your communication coach, call: 614-488-9164 or e-mail: Patrick at: Patrick@PatrickDonadio.com Visit <http://www.PatrickDonadio.com> for more business tips

Volunteers Needed for MATHCOUNTS February 19 and March 12

The nation is well aware of the need to prepare our students for the future and the need to increase the number of students graduating in science and engineering. Two thirds of our science and engineering Ph.D. students are foreign born, and many do return home after graduation. MATHCOUNTS is one of the foremost programs nationwide preparing middle school students for the field of technology. Many of our MATHCOUNTS alumni also enter one of the STEM programs (Science, Technology, Engineering and Mathematics) across the State. The Franklin County Chapter (FCC) administers the MATHCOUNTS Regional Competition for central Ohio on February 19 at Columbus State Community College. This competition is one of the largest in the country. The winners advance to the State Competition on March 12, also held at Columbus State Community College. FCC also takes the lead for the State MATHCOUNTS. Both competitions need 80 to 100 volunteers. Please email Joe (joseph.bolzenius@hotmail.com) regarding the FCC competition or Tina (Sutermeister@alcatel-lucent.com) regarding the state competition if you will volunteer for one or both.

February Auxiliary Luncheon

The Auxiliary to the Franklin Co. Chapter of OSPE will meet on Tuesday, February 15, at the Worthington Hills Country Club, 920 Clubview Blvd. South, Worthington, beginning with a noon luncheon.

Renowned violinists Arkidy Gips and Paul Hartley are playing a return engagement at this meeting.

Marlene March will give the invocation and lead the pledge of allegiance. Sharon Eifert is to be hostess.

All prospective members and guests are invited to attend.

Make reservations with Jean Mitchell at 262-7071.

AWARDS

Awards are an important part of an engineering career. Awards indicate achievement and effort. Awards indicate recognition. The deadline to nominate candidates for the following awards is March 31, 2001:

- Overall National Engineers Week Observance Award
- OSPE Uncommon Engineer Award
- Legislator of the Year Award
- Professional Engineering Management Award
- Ohio New Product Award

All nominations should be forwarded to the attention of Nick McCullough.

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Geotechnical Environmental Construction Materials Facilities

The Future Engineer or the Future of Engineering

by Leon Winget, PhD., P.E.

Robots are now very useful in the automotive industry, exploration, transportation, etc. Could robots be developed to replace the engineer as we know the profession today?

How about the “Genetic Robot.” “Genetic Robots” are moving robots that can be created fully automatically. The robot structures are created using genetic software algorithms and additive manufacturing. The Fraunhofer Institute for Manufacturing Engineering and Automation (IPA) in Stuttgart has successfully configured a moving robot, which has automatically designed, without the intervention of an engineer, by a genetic software algorithm. Last year, at the Euromold trade fair in Frankfurt, Germany, researchers demonstrated one of these mobile machines or robots.

The basis for the development is a physics engine in which the most important environmental influences – such as the friction of the ground or gravity – are implemented. If the Genetic Robot is to withstand unevenness, climb stairs or swim in water, these environmental conditions can be simulated. The result is not just one but a multitude of solutions from which the designer can choose the best one. “Another advantage is that the algorithm often spits out surprising variations – ‘mutations’ that would not necessarily have occurred to the designer,” Fischer explains.

The original genetic algorithm was developed by US scientists Hod Lipson and Jordan Pollack and stems from their GOLEM Project. The software was further enhanced by another institute, GmbH in Sankt Gallen, Switzerland, so that the robots’ geometries can be output directly as a CAD file for production by electronic tool machines. A new field of science or engineering is introduced “mechatronics” which is the interplay of mechanics, electronics and computer science.

Far fetched? Well how about service with a smile, which also comes with an electronic voice. At the Dalu Robot Restaurant, the “hotpot meals” are not as famous, yet, as the staff, which never lose their patience and never take tips. The restaurant, which opened late last year in City of Jinan in northern Shandong province, is touted as China’s first robot hotpot eatery where robots resembling Star Wars droids circle the room carrying trays of food in a conveyor belt-like system. More than a dozen robots operate in the restaurant as entertainers, servers, greeters and receptionists. Each robot has a motion sensor that tells it to stop when someone is in its path so customers can reach for dishes they want.

Professional Engineers in Industry NEW PRODUCT AWARD

New and improved products stimulate the life and growth of our country. These benefits result from research and development to which engineers make their unique contribution. This competition recognizes the results of those efforts and the foresight of the companies whose aggressive policies bring new products to the marketplace.



The purpose of the NSPE/PEI New Product Award program is to recognize the full spectrum of benefits that come from the research and engineering of new products. These include added employment, economic development, strengthening of the nation’s competitive position internationally, and contribution to the public’s standard of living.

Any new product, machine, process, or material that has been developed in the United States may be entered provided that it was first placed on the market between **September 1, 2007 and September 1, 2010**. Entries must be submitted to OSPE by March 31, 2011.

There is no entry fee to file for OSPE members. Forms and entry instruction can be found at the following <http://ohioengineer.com/images/stories/pdf/newprod11>.

(Portions of the above was excerpted from “2009 NSPE/PEI New Product Award - Information and Instructions”)

An advertisement for Ameriprise Financial. It features the Ameriprise logo (a blue circle with a white star) and the text 'Ameriprise Financial' in a blue serif font. Below this is a portrait of Daniel J. Lauletta, a man in a suit and glasses. To the right of the portrait, it says 'Sponsored by Daniel J. Lauletta' with a small 'CFP®' logo. Below that is 'Ameriprise Financial Services' and the address '3401 Enterprise Parkway, Suite 105 Beachwood OH, 44122 (216) 825-2332'.

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2011 CALENDAR

Feb. 8	5:30 p.m.	FCC Board Meeting @ Korda Nemeth
Feb. 15	5:00 p.m.	Submission deadline for the March <i>Columbus Engineer</i>
Feb. 19	8:00 a.m.	Regional Mathcounts competition held at Columbus State Community College
Feb. 20-26		National Engineers Week (see www.eweek.org)
Feb. 23	8 a.m.-3 p.m.	Franklin County Chapter OSPE Engineer for a Day Program
Feb. 24	11:30 a.m.	E-Week Luncheon (see page 1)
March 8	5:30 p.m.	FCC Board Meeting @ Korda Nemeth
March 15	5:00 p.m.	Submission deadline for the April <i>Columbus Engineer</i>
March 19		Local Science Day