



Columbus Engineer

Official Publication of the Franklin County Chapter of the Ohio and National Societies of Professional Engineers

VOL. 72
NO. 6

PRESIDENT'S MESSAGE

By Richard Smelker FCC President



It's February. There is a lot going on. February 16-22, 2014 is National Engineers Week. The theme this year is "Let's make a difference." There are several events taking place here in Columbus to celebrate Engineers Week, including the E-Week Luncheon. This

year's speaker for the luncheon is Mark C. McCullough Executive Vice President – Generation American Electric Power. Registration begins January 20, 2014 online at www.columbusengineers.com. Payment in advance via credit or debit cards is strongly encouraged. Registrations at the door (walk-ins) will be accommodated until seating capacity is reached, and payment via credit or debit cards is again strongly encouraged.

The "Engineer for a Day Program" is a program also occurs during Engineers Week. Junior or senior high school student shadows an engineer in industry, government or a consulting firm for a day. This program is scheduled for February 19th.

If your company wants to participate, please send an email to our Administrative Assistant, Nancy Mergel ospfcc@aol.com. You may contact Charles Ohrstedt at mohrstedt@sbcglobal.net for further information.

The FCC Regional MATHCOUNTS event will be held at Columbus State University (CSU) on February 15th, 2013. FCC competition is the largest in the State. There are a total of 14 competitions around the state and all must be completed in February. If you wish to volunteer, contact Joe Bolzenius, joseph.bolzenius@hotmail.com.

The Imagine Engineering second grade coloring contest is in full swing. We have more schools signed up than ever this year and need volunteers to visit the schools interested in participating, please contact Devon Seal, the Imagine Engineering Chairman at devon_seal@gspnet.com.

Franklin County has received several scholarship applications. These will be reviewed and graded this month. If you wish to participate in this process, and we can use your expertise, please contact Joe Sullivan, joe.sullivan@stantec.com.

FEBRUARY AUXILIARY EVENT

The Auxiliary to the Franklin County Chapter of OSPE will have a noon luncheon meeting on Tuesday, February 18, 2014, at La Scala Restaurant, 4199 W. Dublin-Granville Rd., Dublin.

The speaker will be Steve Stevens, travel writer for the Columbus Dispatch. June Gray will give the invocation and lead the pledge of allegiance. Linda Wong is hostess. All members are urged to start off 2014 by attending, and spouses and other guests are welcome.

The Italian food is always delicious. Also, there will be a report from the November philanthropic event held to raise money for engineering students at OSU. For reservations, call Jean Mitchell at 262-7071.

What is it?

"cellulose reinforced polypropylene"

It has been reported that the engineers at Lincoln Motor Co. have been working with Weyerhaeuser and Johnson Controls in a multi-year project to find replacement for fiberglass in auto parts. The three companies have proposed wood fibers as that substitute. These all-natural fibers, harvested from trees, are replacing the traditional glass fibers, called "cellulose reinforced polypropylene."

Lincoln says the new fiberglass substitute is not only eco-friendly, it's 6 percent lighter. The 2014 Lincoln MKX will be the first production vehicle to use the new technology. Oh yes, it is eco-friendly!?! (Ref: Wall Street Journal and Autoweek.)



2014 Central Ohio Engineers Week Luncheon

Thursday, February 20, 2014

at

Bridgewater Banquet & Conference Center
10561 Sawmill Parkway, Powell, Ohio 43065

11:30 AM Registration, 12:00 Noon Luncheon, 12:30 PM Program Begins

Registration: \$25 “Early-Bird: Registration (Register by February 8, 2014 to get your “Early-Bird” discount.) \$35 Late Registration. Students FREE.

Registration begins January 20, 2014 online at www.columbusengineers.com. Payment in advance via credit or debit cards is strongly encouraged. Registrations at the door (walk-ins) will be accommodated until seating capacity is reached. Payment via credit or debit cards is again strongly encouraged.

Keynote Speaker: Mark C. McCullough, Executive Vice President - Generation, American electric Power. You will want to come hear Mr. McCullough’s presentation on Engineering a Difference in Tomorrow’s Infrastructure as we “Make A Difference” during this year’s National Engineering Week.

Mark C. McCullough is executive vice president - Generation, responsible for the management of AEP’s fossil, hydro and wind generating units and OVEC/IKEC’s generating assets. This includes engineering, construction and operation of generating units, and activities related to fuel procurement and emission monitoring and logistics. The Engineering, Projects & Field Services; Fossil & Hydro Generation; and Fuels, Emissions & Logistics groups report to him.

He has served AEP his entire career, since 1981, in a variety of positions, including senior vice president - Fossil & Hydro Generation, responsible for directing the activities of AEP’s group of approximately 36,000 MW of fossil and hydro generating facilities and three functional areas: plant engineering/environmental services; asset and outage planning; and technical skills and process optimization. Previously, he was vice president - Fossil & Hydro Generation - Base Load Assets, with oversight and profit and loss (P&L) responsibility for Amos, Gavin, Mountaineer and Rockport plants. Prior to that he was region director - Ohio, Unregulated Generation, with management and P&L responsibility for more than 10,000 MW of coal-fired generation, 800 MW of gas-fired generation, and 2,600 MW of partner-operated coal-fired generation.

McCullough holds a bachelor of science degree in mechanical engineering from Rose Hulman Institute of Technology. He completed the MIT-INOP Reactor Technology Course for Utility Executives in June 2012, and serves as vice chairman for the Coal Utilization Research Council. He is a member of the Boards of HomePort, by the Columbus Housing Partnership, and the Ohio Valley Electric Corporation.



NOMINATIONS BEING ACCEPTED FOR FIVE OSPE AWARDS

Nominations are being accepted for the following five OSPE awards. Contact your local Chapter Awards chairperson, Tina Sutermeister, at 614-718-3795 or email: tina.sutermeister@alcatel-lucent.com. The deadline for submitting these nominations to OSPE is March 1st so, don't hesitate, contact Tina immediately.

Overall National Engineers Week Observance Award – This award is presented to the Chapter that excels in its week long E-Week program to promote the engineering profession and educate the community of the true meaning and purpose of National Engineers week.

OSPE Uncommon Engineer Award – This award recognizes distinguished service to the engineering profession; devotion and commitment to the state society and local chap-

ter; high standards of professionalism; and guidance in the role of a team player. The candidate must be a registered PE and must be a member in good standing with OSPE.

Legislator of the Year Award – This award recognizes a State Legislator who has given significant support to the engineering profession, allowing the profession to maintain its commitment to the health, safety and welfare of the public. The candidate must be a member of the Ohio House of Representatives or the Ohio Senate.

Professional Engineering Management Award – This award recognizes leadership, organizational and management skills in an engineering environment.

Ohio New Product Award – This PEI award recognizes the benefits that come from the research and engineering of new products and the results of engineers' efforts and foresight of their firms. The firm must have developed a product, machine, process or material that was primarily developed and manufactured in Ohio. Three firm size categories are available for this award.

Nominations for these awards must be approved by the FCC-OSPE Board in the February 11th Board meeting. Applications are available for some of these award nominations. Contact Tina to obtain the appropriate application and to have the nomination presented to the FCC-OSPE February Board meeting.



PLANCORP, INC.
BENEFITS, INSURANCE, HUMAN RESOURCES, TECHNOLOGY.

DANIEL J. LAULETTA
CFP®, ChFC®, CLU®, LUTCF, AEP®

Office: 216-642-1099
Direct: 216-503-5416
Cell: 440-319-0739
Fax: 216-642-1186
AR Insurance #390016

9050 Sweet Valley Drive
Valley View, Ohio 44125-4220
www.plancorp.biz
E-mail: DL.lauletta@plancorp.biz



ms consultants, inc.
engineers, architects, planners

2221 Schrock Road
Columbus, Ohio 43229-1547
614.898.7100
info@msconsultants.com
www.msconsultants.com

Offices in Akron, Cleveland, Columbus & Youngstown
Also visit us on LinkedIn, Facebook and Twitter



PATRICK ENGINEERING

Highway | Railroads
Structural & Traffic Studies
Water Resources | Environmental
Federal | Infrastructure
GIS, Surveying & Mapping | Energy
Program & Project Management

3650 Olentangy River Road, Suite 110 | Columbus, Ohio 43214
614-470-9750 | www.patrickco.com



**AEP AMERICAN®
ELECTRIC
POWER**

A History of FCC/OSPE – Unrest and Common Sense

(This is the seventeenth issue of the History of Franklin County Chapter, by L.E. Winget, Ph.D., P.E. The content is based on the Frank Geyer's compilation "A History of FCC", 1972.)

FY 1968-69 – Unrest and Common Sense - Two Americans, Neil Armstrong and Edwin Aldrin, Jr., landed on the moon. Michael Collins was the Command Pilot of the Module. President Nixon announced troop withdrawals from Vietnam. China and Russia exchanged hostilities across their border. China exploded a hydrogen bomb. Britain rushed troops to Northern Ireland to quell riots that broke out between the Catholics and Protestants. Oh yes, interest rates rose above 6%, which was a prelude to higher interest rates across the country over the next couple of decades. (New home owners 16%, ouch!)

The Chapter elected F.C. Weimer as President and J.G. McDaniel as Vice President. There were 12 Functional Group Trustees and 26 Chairs. The budget for the fiscal year was \$9,500. The membership was at 845 engineers. The meetings were held at the Imperial House Motel. Certificates were presented at two meetings, September and April, to the new Professional Engineers. Two joint meetings were held with the Auxiliary, October and January, with a little dancing on the side. Oh yes, one meeting was held at the Anheuser-Busch facility; the cost of the meal was \$3.50 with samples of their product furnished free of charge. The installation banquet, on May 27, was held at the Ilonka's Provincial House. A tour was made of Industrial Nucleonics Corporation a week

earlier. The Chapter Family Picnic was held on June 21, at the Indian Village.

The speakers' topics at the meetings were:

- The Licensing of the Engineer - Walter Graf
- (The topic was not identified.) – M.E. Sensenbrenner
- The Cross Roads of the Pacific – Captain A.L. Logan
- Historical Homes in Northwest Territory – R.E. DeVolt

(Water Graf, Member of the Registration Board; M.E. Sensenbrenner, Mayor of Columbus; Captain A.L. Logan, Senior Assistant Port captain, Panama; R.E. DeVolt, an Architect.)

Significant Events: The new OSPE building fund was at 60% of its goal, \$50,000. The building was to be just east of the BMI. The total cost was estimated to be \$300,000. The Professional Surveys formed their own chapter, but still affiliated with FCC and OSPE.

Auto license plates were available in Ohio with the initials "P.E." at a cost of \$1.00.

Dr. R.I. Jaffee was elected a member of the National Academy of Engineering for life.

Bob Tippett received the OSPE Meritorious Award.

On the lighter side: "According to recent poll, engineers make ideal husbands." "A little common sense, a little tolerance, a little good humor, and you do not know how comfortable you can make yourself on this planet." - W. Somerset Maugham.

On the more serious side: "Only managers who can deal with uncertainty, with ambiguity, and with battles that are never won, only fought well, can hope to succeed." – Anon. "Make no little plans; they have no merit or magic to stir men's blood, and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are dead and gone will be a living thing asserting itself with an ever growing intensity. Remember that our sons/daughters and grandsons/granddaughters are going to do things that would stagger us. Let your watchword be 'Order' and your beacon 'Beauty'." - Daniel Burnham, designer of the 1909 Chicago Plan. (Editorial comment, the daughters and granddaughters were added to update to the 20th /21st Century by the present author.)

Next: Hurricanes and the Generation Gap

Responsive.
Resourceful | Reliable

Terracon
Columbus, Ohio
(614) 863 3113
terracon.com/Columbus

Environmental ■ Facilities ■ Geotechnical ■ Materials

What MATHCOUNTS Does



MATHCOUNTS combines the efforts of education, business, government, and the technological community to promote math excellence among junior high school students. MATHCOUNTS was developed as a positive and rewarding way to make parents, educators, and the general public aware of career opportunities in math.

The program builds skills, promotes strategic problem-solving, and provides an opportunity to bring 6th, 7th and 8th graders together to prompt a lively exchange of mathematical ideas through competition. MATHCOUNTS impacts these student “athletes” at an age when they are formulating attitudes about math and technology.

How MATHCOUNTS Works

The competition phase of MATHCOUNTS begins in the schools in the form of a qualifying test. Students are coached in everything from basic arithmetic skills to math logic, probability and statistics, linear algebra, and polynomials. Between September and the national competition in the Spring, students and teachers work together in quizzes and drills to develop teamwork and skills. They are then ready to advance to local and state competitions, which could lead to the National MATHCOUNTS competition in May.

Each year, more than 250,000 students are exposed to MATHCOUNTS materials and activities in their schools. Approximately 140,000 students from all 50 states, U.S. territories and the State and Defense Department schools worldwide participate annually in the MATHCOUNTS program!

ENGINEER FOR A DAY

The “Engineer for a Day” program is organized for high school students who have an interest in learning about careers in engineering. The program takes place during National Engineers Week in February. The students get to spend a day as a guest of an engineering company to gain first-hand knowledge of the role of an engineer. This gives the students (high school juniors and seniors) a real world exposure to a possible future career as an engineer.

The activities for the day of the program are to help the student learn – what do engineers do, what are the engineering activities of the company (engineering business and products), what field of engineering discipline is involved, and what are the challenges the engineer faces on a daily

Volunteers Needed for MATHCOUNTS February 15 and March 8

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. At this time, two thirds of our science and engineering Ph.D. students are foreign born, and many of them 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 enter one of the STEM programs (Science, Technology, Engineering and Mathematics) across the State and later pursue advanced degrees.

The Franklin County Chapter (FCC) administers the MATHCOUNTS Regional Competition for central Ohio on February 15, at Columbus State Community College. The FCC competition is one of the largest in the country. The winners advanced to the State Competition on March 8, also held at Columbus State Community College. The Chapter also takes the lead for the State MATHCOUNTS Competition.

The Chapter can use your help. Please volunteer for one of the competitions, both on a Saturday. Contact Joe Bolzenius, joseph.bolzenius@hotmail.com, for the FCC Competition on February 15, and Tina Sutermeister, Tina.Sutermeister@alcatel-lucent.com, for the State Competition on March 8. You may also contact Leon Winget, lewinget@att.net, for further information.

basis? Though these students are first discovered by their high school math and science teachers, a first-hand interaction with an engineer in the field could be the primary factor determining the career path of these kids.

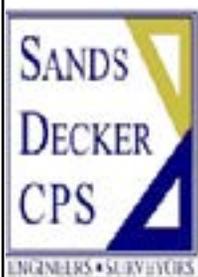
The program has enjoyed tremendous support from many companies and organizations in the past years but we still need interested companies to participate. We currently have 73 openings at companies with a request from the schools for 32 students, but due to school cancellations have not received all requests. If you would be interested in hosting students for the day, Wednesday Feb. 19th, please contact Nancy Mergel, FCC-OSPE Administrative Assistant at 614-863-3134 or email OSPEFCC@aol.com.

FIRST CLASS

OHIO SOCIETY OF
PROFESSIONAL ENGINEERS
Franklin County Chapter
P.O. Box 69
Reynoldsburg, Ohio 43068

2013-14 CALENDAR

Feb. 10	5:30 p.m.	FCC Board Meeting @ Korda Nemeth
Feb. 14	5:00 p.m.	Deadline for March <i>Columbus Engineer</i>
Feb. 15	8:00 a.m.	Local Mathcounts Competition @ Columbus State Community College
Feb. 17-23		National Engineers Week (see www.eweek.org)
Feb. 19	8:00 – 3:00 p.m.	Engineer for a Day Program
Feb. 20	11:30 a.m.	Program: E-Week Luncheon - Bridgewater Conference Center, Powell
Mar. 8	8:30 a.m. - 3:00 p.m.	State Mathcounts Competition (FCC volunteers)
Mar. 11	5:30 p.m.	FCC Board Meeting @ Korda Nemeth



LOGAN COLUMBUS ZANESVILLE



From strategy development through design and construction management, Hull's Civil Engineering team can help.

Hull
& associates, inc.

SHALE OIL AND GAS • ENVIRONMENTAL
WASTE MANAGEMENT • ALTERNATIVE ENERGY
BROWNFIELDS • www.hullinc.com

