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Franklin County Chapter
Ohio Society of Professional Engineers

MARCH 2012

Columbus Engineer

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

PRESIDENT'S MESSAGE

By Devon E. Seal, P.E. / FCC President



Happy Anniversary Columbus Engineer! This month is the 69th anniversary of the Columbus Engineer. We've included an image from our first issue (page 5). It is amazing to see how much has changed since then and also what is still very much the same.

This past month we hosted another successful regional MATHCOUNTS Competition. Thank you very much to all of our registration table, grader, and proctor volunteers. And a special thank you to Joe Bolzenius, P.E. who organized the event, Tina Sutermeister, P.E. and Nick McCullough, P.E. for their leadership with the proctors and graders again this year, and Jim Arnold, P.E. our Master of Ceremonies

for the Countdown Round. Thank you to Columbus State for the use of their facilities for this event. The State Competition is March 10, 2012, and we are still in need of volunteers for that event. See the article inside from Leon Winget, PhD, P.E. for more information about how to volunteer.

Although we do not have a luncheon planned for March, we have two events on March 17, 2012, and we need your help. See below for more information about volunteering as a judge for District Science Day. Also, we need volunteers to meet and greet new Professional Engineers, Professional Surveyors, Engineer Interns, and Surveyor Interns at the certificate ceremony. For more information please call or email the OSPE office. (1-800-654-9481 or 614-223-1144) (ospe@ohioengineer.com)

Volunteers – we need you

Once again, this year the Franklin County Chapter will be a Sponsored Award Organization for the Central District Science Day. District Science Days are held on college and university campuses and are administered by the University and District Councils. Currently sixteen colleges and universities host District Science Days.

The Central District event will be held on March 17th at Columbus State Community College. Projects that are devoted to any of the engineering disciplines are eligible for the Franklin County Chapter awards. Grading is based on the knowledge achieved, effective use of the scientific method or engineering design process, clarity of expression, originality and creativity. Awards of \$150, \$100 and \$50 will be presented to our top three finishers.

Judges are needed for the event, so if you are interested please email Joe Sullivan at joe.sullivan@stantec.com. Sponsored Award Judges are asked to report to Room 137, Union Hall, Columbus State at 8:30 AM for a brief orientation. Judging begins at 9:00 AM and concludes at approximately 11:30 AM, so the time commitment is short.

Participants in District events who are judged with a superior rating go on to the State Science Day. This year's State Science Day will be held May 5th 2011 at French Field House and St. John Arena on The Ohio State University campus.

For more information please contact Joe or visit the Central District Science Day Web site <http://www.cscce.edu/docs/science/>.

Another volunteer opportunity

Volunteers are needed to meet and greet new Professional Engineers, Professional Surveyors, Engineer Interns, and Surveyor Interns at the Spring certificate ceremony to be held March 17. For more information please call or email the OSPE office. (1-800-654-9481 or 614-223-1144) (ospe@ohioengineer.com)

BALLOT

**For OSPE-FCC members that receive the newsletter by email, please find attached a separate pdf version to vote electronically. **

March Auxiliary Luncheon

The Auxiliary to the Franklin County Chapter of OSPE will meet for lunch at noon on Tuesday, March 20, at Overbrook Presbyterian Church, 4131 N. High St., Columbus. Nancy Deeth at the piano will entertain with "Music You Love."

Joanne Troy will give the invocation and lead the pledge of allegiance. Elsie DeJonge is to be hostess.

Prospective members and other guests are always welcome. Call Jean Mitchell at 262-7071 to make a reservation.

Updated Directory

The 2011-2012 FCC-OSPE Membership Directory will be emailed to members later this month. The information listed in the directory is obtained from the NSPE database. This database is compiled from the information you provided NSPE on your dues statement. If any of the information shown in the directory is missing or incorrect, please make corrections on the NSPE website. Just login and navigate to the "My Account" page where you can add or edit your profile information. If you have any problems, NSPE Member Services can be contacted by dialing 1-888-285-NSPE (6773).

If you would like a hard copy of the directory, please contact Joe Sullivan at 614-486-4383 or drop him an email at joe.sullivan@stantec.com.



The Family fun Bowling Event was held on Jan 29th at the Columbus Square Bowling Lanes. Although only five people attended, we had a lot of fun.

Congratulations, Bill Lhota!

Bill, a long-term member of FCC/OSPE, has retired again, this time as CEO of the Central Ohio Transit Authority (COTA). Prior to becoming CEO of COTA, Bill served several major positions at American Electric Power (AEP). He served as President and Chief Operating Officer, responsible for all operations for Columbus Southern Power, a subsidiary of AEP. Later he served as Executive Vice President of AEP, responsible for all electrical operations for the AEP system. In his last position before retirement, Bill served as President of Energy Delivery of AEP, responsible for all transmission and distribution of electrical energy for the 11 state operating systems of AEP. This included responsibility for all engineering, design and operation of the electrical grid.

Bill had not been retired long, when he was tapped to become CEO of COTA. During his tenure of 8 years at COTA, the number of buses, and riders, have increased tremendously, reducing the number of cars on the busy Columbus and suburban streets. This is a true improvement for the environment. In addition, he helped introduce buses operating on alternative fuels; i.e., biodiesel fuels, hybrids, etc. Bill is given much of the credit for turning around the bus company from one in debt to one with a budget surplus. He was, however, always quick to give credit to others, advocating a strong team effort.

Our members will recognize Bill as our Chief Ethics Advisor. He has taught several seminars of "Ethics" locally as well as across the country. He was Chairman of the OSPE Ethics Committee for three years. In addition, Bill chaired the NSPE Board of Ethical Review for two years having served on the Board for four years.

On behalf of the members of FCC/OSPE, we congratulate Bill Lhota on his retirement.

"What's next Bill?"



OSPE Annual Spring Conference & Annual Member Meeting

The annual Spring CPD Conference will be held at the Airport Marriott, 375 North Cassady Avenue, Columbus, OH 43219 on Friday June 1st and Saturday June 2nd.

Since FCC is host for the meeting we will need volunteers to help at the conference. We are also in need of educational programs for several sessions. Please submit your ideas for programs and your name for volunteering to Leon Winget, email jolewin2@sbcglobal.net, phone 614-395-8249 or Howard Jones email hrjones63@yahoo.com, phone 614-209-3289

Co-Chair Spring Conference & Annual Meeting Leon Winget, PhD, PE and Howard Jones, PE

State MATHCOUNTS March 10th Volunteers Needed

Friends, citizens and professional engineers, it is time again to give your services to the State MATHCOUNTS Competition, on March 10 at the Columbus State Community College. Your help is greatly needed. 80 to 90 volunteers are required to efficiently administer the competition. There are four major tasks that you can lend a hand, namely: registration (8), proctoring (34), grading (50) and the Countdown Round (6). The number in the () is the ideal number of volunteers which are needed for each task. Have a friend, please invite him/her to come along.

Full instructions will be given in the morning of the competition. There are 32 teams and 200 top math students from around the state, that will be competing for the honor of the top middle school 2012 Mathlete, and the opportunity to represent Ohio at the Nationals in Orlando Florida, Friday, May 11.

Please contact Tina Sutermeister at Sutermeister@alcatel-lucent.com or phone 614-718-3795(w) or 740-964-0828(h). Be one of the PE's that has a significant part in the MATHCOUNTS program.

See adjoining column.

Engineers and Infrastructure

Topics of infrastructure and bridge maintenance have been highlighted in recent Columbus Dispatch articles. In this case, the articles concerned bridge inspections and bridge maintenance. These articles referenced the costs associated with inspecting bridges, the ever increasing maintenance needs of our roads and bridges, and the high price tag associated with accomplishing all our listed bridge repair needs. Both articles were wire articles written by the Associated Press. While bridges were the topic for these articles, the need for maintaining our infrastructure transcends all engineering disciplines.

As engineers we are tasked with safeguarding the public good and health. We are charged with maintaining this task even while having to work within the constraints of limited resources and budgets. It is always interesting to read technical engineering articles written by non-engineers; there are usually a few errors included and these articles were no exception. Articles such as these draw attention to the work we engineers do, and the need to communicate why maintaining our infrastructure and environment is important, and how these concepts directly relate to public health, economic growth, and improving society. This is true with any aspect of our work.

About the MATHCOUNTS Competition

Currently in its 29th year, MATHCOUNTS is one of the country's largest and most successful education partnerships involving **volunteers**, educators, industry sponsors and students. The MATHCOUNTS Competition Program provides the extra incentive and the perfect atmosphere for students to push themselves to achieve more in mathematics. Consisting of fun and creative problems that promote critical-thinking and problem-solving skills, the MATHCOUNTS competitions have written and oral rounds, as well as individual and team components. Though challenging and non-routine, the competition problems focus on the 6th through 8th grade standards of the National Council of Teachers in Mathematics.

The History of FCC (continued) - Why a Professional Society?

By Leon Winget, PhD, PE

Happy Anniversary “The Columbus Engineer”, this is its 69th anniversary. The first issue was published on March 1, 1943. This is also the 200th Anniversary of the City of Columbus. Congratulations to the city, as the citizens will be celebrating its anniversary from February 2012 through January 2013.

Last month, we covered the origins of Franklin County Chapter. This issue will cover the question “why should engineers join together and form an official association?”. It is a difficult task to determine the reasons for professional engineers grouping together into technical societies. It appeared that there was not an intense need to improve the image of the engineer. The majority of the public grasped the need of the rigorous training and appreciated the nature of the work of the practicing engineer. However, the engineer recognized the need to identify the fraudulent practitioner and to protect the integrity of the profession. Protecting the safety and welfare of the public was paramount.

For some, the non-technical public will always regard the engineer with suspicion. “The transcendentalism of his training and the use of exact sciences to solve problems of life and labor instead of relying on the hopeful and sometimes happy coincidence of intuition and broad philosophy set the engineer apart, certainly technically and often socially but mainly ideologically from the run-of-the-mill citizen, voter, and taxpayer.”

Below is a quote by Herbert Hoover, an engineer. (He later became the 31st President of our country. He was one of only two Presidents that served without pay. President Kennedy was the other.) Mr. Hoover was a mining engineer with some formal training in geology. He deeply believed in an efficiency movement, which held that the economy was riddled with inefficiencies**. Early in his career he was sent to Australia where he was highly involved in gold mining. He recognized and adapted the froth-flotation process to separate zinc from the gold mining tailings. He and others founded the Zinc Corporation (which is now part of Rio Tinto.) He was later sent to China to aid in gold mining, where he and his wife became fluent in Mandarin, which helped him to converse secretly with his wife while in the White House. In China, he became trapped in Tianjin during the Boxer Rebellion and helped guide the U.S. marines over hilly terrain, with which he was quite familiar. He was a great advocate of volunteering. Hence, he helped settle displaced persons during the early years of World War I and then became heavily involved in supplying food for the displaced persons including in Russia after the war. This directly led to his involvement into politics. Realizing that

his engineering career was rapidly fading, he penned “The Engineer” (1915-16);

“The Engineer”

“The great liability of the engineer compared to men of other profession is that his works are in the open where all see them.

His acts, step by step, are in hard substance.

He cannot bury his mistakes in the grave like doctors.

He cannot argue them into thin air or blame the judges like the lawyers.

He cannot, like the architects, cover his failures with trees and vines.

He cannot, like the politicians, screen his shortcomings by blaming his opponents and hope that the people will forget.

On the other hand, unlike the doctor, his is not a life among the weak.

Unlike the lawyer, quarrels are not his daily bread.

To the engineer falls the job of clothing the bare bones of science with life, comfort and hope. No doubt as years go by people forget which engineer did it, even if they ever knew. Or some politician puts his name on it. Or they credit it to some promoter who used other peoples money with which to finance it. But the engineer himself looks back at the unending stream of goodness, which flows from his successes, with satisfactions that few professions may know.”

As can be seen from above, the engineer is not quite the same as other members of the public or other professions.

(continued on page 7)



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The COLUMBUS ENGINEER



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LLOYD A. CHACEY, President

FRANK W. SHELTON, Jr., Editor

Vol. I, No. 1

March 1, 1943

GREETINGS FROM OUR PRESIDENT

A pride not unlike that of a father when his first child is born is part of the feeling I have towards this the first issue of The Columbus Engineer. May this publication serve as a channel for a more intimate contact between all the members of our Professional Society in this county. May it serve as an extended hand of fellowship to all Engineers and Engineers in training whenever it reaches their hands.

It would be a sin of omission if mention were not made of the fine spirit in which Engineer Frank Shelton of American Telephone and Telegraph Company accepted the high salaried job of being editor (it cost him 10 bucks). Mention should also be made of the fine response of Engineers Ralph A. Folsom, Chief Engineer of The Ohio Bell Telephone Company, Chairman of Membership; A. P. Harness, Vice-

President and General Manager of Jennings-Lawrence, Chairman of Violations; and Paul A. Uhlman, Consulting Engineer, Chairman of Professional Practices, in accepting the leadership of committees.

GROUP LEADERS

A new idea in our chapter development is the use of Functional Group leaders as contact men to represent their groups at all Board of Director meetings. The following Engineers have accepted such posts of responsibility: Henry Seslar of The Ohio Standard Telephone Company for the Public Utilities group; R. F. Koerner, Deputy County Engineer for the County Engineers; Frank Williams for the Highway Engineers; and Harry Turner for the Municipal Engineers.

LLOYD A. CHACEY

COME ONE!
March 5, 1943

STATE OFFICE BUILDING
HEARING ROOM NUMBER ONE
Enter State Office Bldg.
Front Street Entrance

COME ALL!
8:00 P. M. Slow Time

All Registered Professional Engineers and their Engineering Friends are Cordially Invited. Meet Your Fellow Engineers. Discuss Your Problems, Interests and Taxes.

ENTERTAINMENT

See black widow spiders make cross hairs for gun sights. Presented by: Miss Maida Ruffner of the Columbus Quartermasters Depot

Mr. Keenan Handley, inventor and builder of water propelled fire fighting boats for the coast guard, will speak.

BOARD MEETINGS

The Board of Directors of the Franklin County Chapter is made up of the three officers, your past-president and three others. Since it is difficult to get even a quorum in these busy times, we are departing from the usual board meeting and inviting any Engineer who wishes to attend. In fact he does not even need to be a Registered Engineer to be welcome. We are insisting, however, that all Committee chairmen, Functional Group leaders, and contact men representing other groups be present at our

board meetings. A dinner meeting of great importance will be held APRIL 2nd, AT THE VIRGINIA HOTEL, TO WHICH THE CHIEF ENGINEERS OF ALL THE INDUSTRIES IN FRANKLIN COUNTY ARE INVITED. We feel that there is a place in the Professional Engineers for men in industry. That will be the topic of the evening. Anyone else wishing a reservation please notify the Secretary.

(OVER)

MEET SOME OF OUR CANDIDATES

Howard Jones, P. E.

Howard retired from AEP in May 2010. He has 8 children, 24 grandchildren and 6 great grandchildren. He has served multiple terms as FCC PEI Trustee and EFO Trustee. He is Past President of FCC. Howard strives to promote registration as a professional engineer; he encourages young new engineers to get their EI, and encourages registered engineers to join NSPE/OSPE/FCC. Howard is currently OSPE Secretary, FCC Secretary & Membership Chair 2011-2012, and NSPE PEI vice Chair Region 2 and co-chair of the Spring Seminar.

Timothy McCarthy, P.E.

An FCC member since 1987, Tim is employed by The Ohio State University as a Safety Engineer in the Office of Environmental Health and Safety. Previous positions include Editor of the Columbus Engineer, Vice-president, Membership chair, Secretary, President, Chair of Awards & Citations, PEPP Trustee. Tim is currently a Vice-President and Editor of The Columbus Engineer. Tim and his wife, Sandra, live in Columbus.

Leon E Winget, Ph.D., P.E.

Retired from the Ohio Power Siting Board, which oversees all new natural gas transmission lines, electric transmission lines and power generation greater than 50 MWe. Dr. Winget chairs the State MATHCOUNTS program for OSPE. He is presently co-chair of the Spring Seminar. Before joining the OPSB, he was Director of the Ohio Solar Department and Chief of Ohio Coal R&D in the Ohio Department of Energy. Before joining the State, he spent 25 years in the aerospace industry.

Carlos Casablanca, P.E.

Carlos is an AEP employee and is a new NSPE member. Carlos is the candidate for Young Engineer Trustee.

Steven F. Wilson, P.E.

Steve is a graduate of the Ohio State University. He has spent 10 yrs with American Electric Power Co., his current employer. Previously with HPM Corporation designing controls for horizontal injection molding machines and with Marion Power Shovel Co. as an electrical engineer designing surface mining equipment. Steve is also a member of IEEE.

C.R. Weaver

C.R. has been employed with Gresham, Smith and Partners, Environmental Compliance division since 2007. As an employee of Gresham, Smith and Partners, C.R. has worked primarily with managing stormwater through modeling, analyses and design work. C.R. has been involved with the full scope of projects from planning to construction close-out.

Faculty Position

Columbus State Community College

Columbus State Community College is accepting applications for a full-time, tenure-track Faculty Position in Civil Engineering Technology – Civil Track. Basic professional requirements include:

Professional Registration: Professional Engineer in the State of Ohio or a Master of Science in Civil Engineering and three years of professional experience to qualify for the NCEES Principles and Practice

Specialized Training: Must be familiar with Micro-Soft Office Suite of Programs (Word, Excel, Access and PowerPoint). Familiarity of AutoCAD Civil 3-D software is desirable. A **full listing of requirements** is available on the Columbus State Community College website: www.csc.edu. Click on "About CSCC" and "On Employment" for the position description, salary and application procedures.



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(History of FCC continued from page 4)

“The engineer has a built-in inability to communicate with the non-engineer. When trying to reach one another, this lack of common ground is usually compounded by an attitude of perpetual agreeableness, however fatuous, on the part of both. If mathematical logic is inserted, it is implied that the engineer is exacting, meticulous, argumentative, and the discussion ends with a feeling of mutual distrust.”

The fundamental motivation for grouping appears to be sociological and technical. “A major reason for the polarization of the engineer toward a group of other engineers was to have someone to talk to on a level of mutual understanding, without having to pretend, act the part of Happy Harry, in order to appear socially acceptable even though technically wrong.”

Again my thanks to Frank Geyer, 1972, “The History of Franklin County.”

Next, we will look at the early years of FCC.

** The efficiency movement was a major movement in the United States. In the early 20th century, industrial nations sought to identify and eliminate waste in all areas of the economy and society, and to develop and implement best practices. The concept covered mechanical, economic, social, and personal improvement. The quest for efficiency promised effective, dynamic management. Although this effort was lost during the WWII years, following the Korean Conflict, Joseph Juran (1904 to 2008), a professor at New York University revitalized the significance of formal studies in “Quality Control”. He wrote several papers and published books on the subject, which soon became the bible. FCC will offer a seminar next October on an introduction to this subject, namely: “Improving Quality Output - The Engineering Contribution?” We hope to see you there.

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Steve Day, P.E. presenting the “Imagine Engineering” program to one of the schools.

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our sponsors
who contributed at all levels.**

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Franklin County Chapter
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Reynoldsburg, Ohio 43068

2012 CALENDAR

Mar. 10		State MathCounts Competition at Columbus State Community College
Mar. 13	5:30 p.m.	FCC Board Meeting @ Korda Nemeth
Mar. 15	9:00 p.m.	<u>Deadline for Apr. Columbus Engineer</u> (articles to Tim McCarthy)
Mar. 17		Central District Science Day at Columbus State Community College
Mar. 17		Spring Certificate Ceremony
Mar. 20	Noon	FCC-OSPE Auxiliary luncheon at Overbrook Presbyterian Church
Apr. 10	5:30 p.m.	FCC Board Meeting @ Korda Nemeth
Apr. 15	9:00 p.m.	<u>Deadline for May Columbus Engineer</u> (articles to Tim McCarthy)
June 1&2		Ohio Spring CPD Conference - Columbus Marriott Airport Hotel