

Technologist

Includes information for the Syracuse Sections of the IEEE

SYRACUSE AREA TECHNICAL SOCIETIES COUNCIL

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CNYSLS - CNY Society of Land Surveyors	Robert Green	Contact	428-4358
CNYTEA - CNY Technology Education Association	Michael D. Thurlow	Pres.	598-6030
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ISMIC - International Society for Measurement & Control	Steve Burrell	Pres.	445-5555
LCSEAA - LC Smith Engineering Alumni Association	Kelly Thompson	Contact	678-2171
NSPE - National Society of Professional Engineers	Michael R. Hayes, P.E.	Pres	455 2000
NYSAPLS - NYS Assoc. of Professional Land Surveyors	Robert S. Green	Chair	428-4358
NYSATE - NYS Association of Transportation Engineers	Mary Clements	Pres.	428-4627
SAE - Society of Automotive Engineers	Angie Errico	Chair	432-4363
SAS - Syracuse Astronomical Society	Stu Foster	Pres.	492-9118
SBE - Society of Broadcast Engineers	Vincent Lopez	Pres.	472-6800
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SME - Society of Manufacturing Engineers	Sam Waite	Chair	432-0700
SWE - Society of Women Engineers	Susan Weaver	Pres.	432-0506

The Technology Alliance of CNY has been reporting on technical excellence since 1903.

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December 2006

**The Syracuse Section of the
Institute of Electrical and Electronics Engineers**
www.ewh.ieee.org/r1/syracuse



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Happy Holidays!

The Technology Alliance of Central New York
www.TACNY.org



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1. Student Leaders Have Good Words for Pizza, T-shirts Can free pizza and T-shirts be the keys to running a successful IEEE student branch? Don't laugh, for the answer is "Yes," according to IEEE student branch leaders who attended the first Student Leaders Summit of the IEEE University Partnership Program.
2. Webinar Focuses on Design and Process Engineering On 9 November, hear industry experts from Synopsys, Cadence, and Mentor Graphics discuss how to apply design-for-manufacturing methods to smooth the transition from design to process engineering. Sign up for the free IEEE Spectrum Tech Insider Webinar, Design and Process Engineering: Bridging the Electronic Design Automation Gap, sponsored by Cadence
3. New Publication Spells Out IEEE Benefits Do you have questions about planning for retirement? Need advice on disability insurance, college tuition, savings plans, or homeowner's insurance? Then check out F.Y.I., the newsletter of the IEEE Financial Advantage Program.
4. Mentors, Judges Needed for Robotics Competition One good way to inspire high-school students to pursue an engineering career is to get them to do a little engineering -- like having them build a robot. Student robot competitions are growing in number, and one of the biggest is a U.S-wide program sponsored by a group called For Inspiration and Recognition of Science and Technology, or FIRST.
5. Marketplace of Ideas: Australian Spammers Fined Millions The Australian Federal Court has fined Clarity1 Pty and its director, Wayne Mansfield, AU \$5.5 million for sending spam e-mails. Between April 2004 and April 2006, the company sent some 280 million spam messages, with about 74 million delivered successfully. The e-mails that advertised business seminars and various products violated Australia's Spam Act, which prohibits unsolicited messages. What do you think of this punishment? Would you like it implemented in your country? Also, read responses to August's question on whether you would support an Internet tax on e-mail and cellphone text messages. Answers range from a need to tax spam senders, to being against such a tax because it would control communication.
6. Ready, Set, Retire "Planning for retirement is not easy, but with the right road map you can enjoy a smooth ride," says Larry Grogan, president of financial advisor Grogan Advisory Services. To help IEEE U.S. members get on the right track, Grogan offered his advice during a retirement Webinar, sponsored by the IEEE Financial Advantage Program.
7. EE Times Seeks Nominations for Awards The newspaper EE Times seeks nominees for its Annual Creativity in Electronics Awards, which honors technology inventors who have demonstrated the leadership and innovation to shape the world we live in.
8. Deadline Nears for Technical Field Award Nominations The last day to nominate a colleague for a 2008 IEEE Technical Field Award is 31 January 2007.
9. The Brightest Minds Discussing the Biggest Topics Check out the upcoming IEEE Spectrum Tech Insider Webinars, which include such subjects as Entrepreneurship and Computer Science; Design and Process Engineering: Bridging the EDA Gap; Medical Technology Gets a Shot in the Arm; and Mobile Devices and Their Impact on Network Security. back from a test drive of the Chevrolet Sequel, a hydrogen fuel-cell vehicle.

BOOKMARK THIS!

Check out our Section Calendar at <http://www.ewh.ieee.org/r1/syracuse/cal.htm> for additions, updates and directions to meetings. This includes meetings that we have not been able to add to the Technologist due to scheduling. The Syracuse Section will add meetings for other organizations where IEEE members are invited and link to your web page. Don't have a web site for your organization? We will include the information on ours for related technical societies. Contact Don Herres at d.herres@ieee.org.

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<<http://www.ieee.org/membership/coa.xml>>

SYRACUSE SECTION Meeting Information

Our Executive Committee Meetings are held on the first Friday of the month and are open to all members. Minutes are available online at <http://www.ewh.ieee.org/r1/syracuse/meet.htm>

Check out the all new Syracuse Section website:

Date	Time	Location	Topic
January 5	12:00 PM	C&S Engineers	Section Executive Committee Meeting
February 2	12:00 PM	C&S Engineers	Section Executive Committee Meeting
March 2	12:00 PM	C&S Engineers	Section Executive Committee Meeting
April 6	12:00 PM	C&S Engineers	Section Executive Committee Meeting
May 4	12:00 PM	C&S Engineers	Section Executive Committee Meeting

Stearns & Wheler, LLC an environmental consulting engineering firm is presently seeking highly motivated people for the following positions in our Cazenovia office.

Electrical Designer: Responsibilities include providing electrical designs of power distribution systems for water and wastewater facilities. The candidate should be knowledgeable of these facilities including hazardous locations and relevant applicable codes, be proficient in AutoCAD 2002 or higher, be able to work with Microsoft Office programs, and have an understanding and working knowledge of Excel spreadsheets. Being able to do lighting selection, design, and layout is a plus. The qualified candidate should have an AAS Degree in Electrical Engineering Technology with at least 1 to 3 years experience.

Electrical Engineer: Responsibilities include providing electrical designs of power distribution systems for water and wastewater facilities. The candidate should be knowledgeable of PLCs, VFDs, and their application including a general knowledge of process instrumentation. The candidate should have good writing skills, be able to manage multiple design projects, be proficient in AutoCAD 2002 or higher, be able to work with Microsoft Outlook and Word and be skilled in the use of Excel spreadsheets. The qualified candidate should have an Electrical Engineering Degree with 2-5 years experience.

We offer competitive salaries and a comprehensive benefits package. If you wish to be considered, please submit your resume and salary requirements in confidence to:

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Congratulations to a new Fellow, Mr. William Penn.

Recognizing the achievements of its members is an important part of the mission of the IEEE. Each year, following a rigorous evaluation procedure, the IEEE Fellow Committee recommends a select group of recipients for one of the Institute's most prestigious honors, elevation to IEEE Fellow.

The IEEE Board of Directors, at its meeting on November 19, 2006, elevated William Penn of Argus Avionics to IEEE Fellow, effective 1 January 2007, with the following citation:

“for contributions to electronic and electro-optical systems for detection and communication”

Please be sure to pass on congratulations if you see him.

More Information:

The grade of Fellow first appeared in the AIEE constitution of 1912. In that year, the AIEE revised its membership structure and established the grade of Fellow for those engineers who had demonstrated outstanding proficiency and had achieved distinction in their profession. Potential Fellows had to be at least thirty-two years of age, with a minimum of ten years experience. When the IRE established its Fellow grade in 1914, the requirements were clearly modeled on those of the AIEE. Much of the wording in the relevant sections of the IRE constitution is identical to the corresponding wording in the AIEE constitution.

For the first several years after the establishment of the Fellow grade, both the AIEE and the IRE allowed Members to make direct application for transfer to Fellow. In both cases, applications had to be accompanied by references from five existing Fellows, and required the approval of the Board of Directors. In 1939, the IRE modified its procedure to make admission or transfer to the Fellow grade possible only by direct invitation of the Board of Directors, a policy it maintained until the merger in 1963. In 1938, the AIEE modified its constitution to provide that 'Applications to the grade of Fellow shall result only from a proposal of five Members or Fellows.' In 1951, the AIEE prohibited applications for Fellow grade altogether, and adopted a policy of direct invitation similar to that of the IRE.

As noted above, numerous electrical engineers were members of both the AIEE and the IRE, and many of these became Fellows of both organizations. When the two institutes merged in 1963, all AIEE and IRE Fellows automatically became Fellows of the IEEE. In 1942, the IRE had begun to issue citations to new Fellows, briefly describing their accomplishments. The AIEE followed suit in 1952, and the IEEE continued the practice after the merger.

As it stands today, the IEEE Grade of Fellow is conferred by the Board of Directors upon a person with an extraordinary record of accomplishments in any of the IEEE fields of interest. A brief citation is issued to new Fellows describing their accomplishments and the total number selected in any one year does not exceed one-tenth percent of the total voting Institute membership.

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Web site of the Month

www.canals.state.ny.us/cculture/history/



Birth of engineering

Learn about the history of the Erie Canal and how it helped to spawn an industry at a Web page on canal culture put out by the New York State Canal System. You can learn more at this month's Junior Café Scientifique. See inside for details.

President's Message

As I speak to people about our organization, it seems that TACNY is the oldest unknown organization in central New York. We were founded over 100 years ago, but even most of the technologists in town haven't heard of us. How do we change that? Your Board of Directors has been wrestling with that issue, and several committees have been charged with changing the situation.

Foremost among them is our Communications Committee, which calls itself ComCom. The committee has defined three major goals. Most important is to generate awareness of TACNY through our internal communications – such as the Technologist newsletter – and external communications – media exposure. Co-chairs Maria Welych, from The Post-Standard, and Amber Markow, from Eric Mower and Associates, are well qualified to get our name and message out to the public.

The committee has other valuable goals of increasing attendance at TACNY sponsored events, and establishing TACNY as a credible media source on all things technological. I expect that you will begin to see change very soon from the committee as they begin an overhaul of the Technologist. Their goals are many, but the committee members are few. The more help we have, the quicker we can change the situation around and make TACNY known to all! We especially need people with Web development skills to make significant changes to the Web page (www.tacny.org).

If you have an interest in helping, please drop me a note at hollander@tacny.org, and let's begin to make some impact! As a matter of fact, to "test" the effectiveness of my own communication, send me a note just so I know you've read this far! Thanks.

Howie





This year's event, like last year's, will feature break out discussion sessions.

Seeking to stem the loss of CNY engineers, scientists

The State University of New York College of Environmental Science and Forestry is hosting a daylong seminar Dec. 7 examining how Central New York schools can prepare students for jobs in the fields of science, technology, engineering and mathematics. The event is part of a national push to reverse a trend toward fewer U.S. students pursuing careers in these areas.

This is the second year that SUNY ESF has hosted a seminar on this topic. Last year, nearly 100 participants from schools, businesses and universities gathered at Sainte Marie Among the Iroquois Living History Museum in Liverpool to begin the conversation. This year, participants will gather at the Rosamond Gifford Zoo at Burnett Park to begin developing a plan of action, which will be presented to the public for review and comment next March.

According to national and international studies, more than 90 percent of all scientists and engineers in the world will be living in Asia by 2010, if current trends continue. Currently, more than half of all engineering doctoral degrees awarded by U.S. engineering colleges are to foreign nationals. And the number of engineering degrees awarded in the United States is down 20 percent from the peak year of 1985.

"It is clear to us all that further aligning education and business — particularly in literacy, technology, math, engineering and the sciences — is indispensable in the new global economy to support growth and replicate success," said Dr. Charles M. Spuches, associate dean at SUNY ESF and event organizer. "It is also clear that improving communication and connectivity between education, workforce development, and economic development efforts must be our priority to address the workforce crisis."

Registration for the seminar will begin at 8:30 a.m., with the first speakers starting at 9:15 a.m. The program, which includes TACNY President Howard Hollander, will work through lunch and end at 2 p.m. The event is aimed at K-12 educators, building and school district leaders; business leaders; community leaders; elected officials; college and university faculty and campus leaders; and others with an interest and stake in encouraging and supporting young people to engage in science, engineering and technology educational programs and careers.

The cost to participate is \$25, and people can review the program outline and register online at www.esf.edu/outreach/stemforum/. Contact the ESF Outreach Office at 470-6817 with any questions.

Happy Birthday, Junior Café Scientifique!

It began quietly with less than a dozen attendees, but Junior Café Scientifique is beginning its second year of programming this month with a move into a bigger room at the Milton J. Rubenstein Museum of Science and Technology (MOST) and a talk about the Erie Canal.

The monthly interactive talks on science and technology topics is aimed at students in middle and high school, but younger children and adults are among the regular attendees. The speaker series is based on Café Scientifique, an international program that began in Great Britain. The first Central New York talk, which featured Syracuse University physicist Mark Trotter, was held last December. Gwendolyn Maturo and Peter Plumley, both members of the TACNY Board of Directors, organize the series, and TACNY pays for the attendees' museum entrance fees and snacks.

Growing numbers of Central New York students gather at the MOST's Galson Theater at 9:30 a.m. the third Saturday of every month. Topics have included the science of forensics, visual demonstrations of light and sound waves, and an examination of how long the world's crude oil supply will last and the impact of its loss on the economy.

The November event featured Dr. Shannon Magari, of Colden Corp., talking about her work as an industrial hygienist and epidemiologist. Dozens of children crowded into the Galson Theater, with many sitting on the floor to hear Magari talk about the types of hazards workers face in jobs and what can be done to prevent problems. Sixteen children from Webster Elementary School's science club (*shown below*) attended the event, more than half of the entire club.

Maturo and Plumley hope to keep the excitement going for the next year of Junior Café. They have scheduled these speakers through June:

- **Dec. 16:** Professor Sam Clemence, of Syracuse University's College of Engineering and Computer Science, Department of Civil and Environmental Engineering. Topic: Erie Canal – The Engineering Story
- **Jan. 20:** Professor Julie M. Hasenwinkel of Syracuse University's College of Engineering and Computer Science, Department of Biomedical and Chemical Engineering. Topic: Totally Hip: The Science of Joint Replacement
- **Feb. 17:** Professor Marvin Druger, of Syracuse University's College of Arts and Sciences, chair of the Department of Science Teaching. Topic: Viruses Among Us
- **March 17:** Professor Jae Oh, of Syracuse University's School of Engineering and Computer Science. Topic: The Science of MP3 Players, Computer Games, Space Exploration, Instant Messaging, the Internet and eBay
- **April 21:** Professor Theodore A. Endreny, of the State University of New York College of Environmental Science and Forestry. Topic: Predicting Catastrophic Rainfall in Syracuse
- **May 19:** Professor Tiffany A. Koszalka, of Syracuse University's School of Education. Topic: Playing in our Virtual Universe: Preparing to be an Explorer
- **June 16:** Dr. Peter Plumley, program manager of the MOST and professor at Syracuse University's College of Engineering and Computer Science. Topic: Random Wandering of the Earth's Magnetic Field



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**TIME SENSITIVE MATERIAL
POSTMASTER, PLEASE RUSH**



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