

# Technologist

Includes information for the Syracuse Section of the IEEE and NSPE.

## SYRACUSE AREA TECHNICAL SOCIETIES COUNCIL

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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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November 2007

The Syracuse Section of the  
Institute of Electrical and Electronics Engineers  
[www.ewh.ieee.org/r1/syracuse](http://www.ewh.ieee.org/r1/syracuse)



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The Syracuse Section of the  
National Society of Professional Engineers  
[www.CNYPE.org](http://www.CNYPE.org)



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The Technology Alliance of Central New York  
[www.TACNY.org](http://www.TACNY.org)

WATCH FOR YOUR COPY OF OUR E-NEWSLETTER



## Message from the Chair – Mike Hayes, PE

The Section shared space with several professional organizations in the Youth/4H building at the State Fair again on Labor Day weekend courtesy of Tom Frawley of the New York State Technology Education Association (NYSTEA). I want to thank everyone who volunteered. I hope you enjoyed the experience and that you'll volunteer again next year. We were able to borrow some great "toys" again this year thanks to the Syracuse University Physics Dept. As usual, the Tesla Coil was the big draw for us. The kids really like the little "lightning bolts". The State Fair has told us in the past that about 20,000 people walked by our exhibit during the 4 days we were there. However, what's probably of more interest is how many people actually came to the exhibit and touched the Tesla coil, hand-cranked generator, polarized plates, the NYSTEA Van de Graaff generator (another big hit with the kids), etc. I did an informal head count for a two hour period. The total was about 110 different people or roughly 50 an hour. Since we were there about 32 hours, it is likely over 1500 people (mostly, but not entirely, kids) got some first-hand exposure to electrical technology. Maybe that will cause a spark (pun intended!) of interest in a career as an electrical or computer engineer in some of the kids.

The Syracuse Section has submitted a proposal to IEEE to host the 2011 IEEE Sections Congress. The Sections Congress is held every 3 years. It is a governance meeting attended by IEEE leaders from literally all over the world. I thoroughly enjoyed the ones I attended in 1996 in Denver, CO and in 2005 in Tampa, FL. It was great to interact with counterparts from every continent (except Antarctica). Approximately 700 people will attend the Sections Congress. I think this will a great opportunity for Central New York if we are successful. I have learned that only two other sections have submitted proposals: Alaska and San Francisco. So we have a 1 in 3 chance to win this. I'm keeping my fingers crossed. We'll find out in February 2008 whether our proposal was accepted.

Please see the NSPE portion of the newsletter for the Central New York Engineering Expo. The Expo is open to anyone who wants to attend. There are 7 PDHs available for NY Professional Engineers. There will be communications and power system presentations, engineering economics, engineering change management, and many others. There are 5 parallel tracks and almost 30 speakers.

Since this will be our last newsletter until January, I'd like to wish all of you a happy holiday season and Happy New Year.

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**Those members who need to CHANGE CONTACT INFO on file with the IEEE, including e-mail addresses, should do so at:**  
[<http://www.ieee.org/membership/coa.xml>](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:**  
<http://www.ewh.ieee.org/r1/syracuse/>

**IEEE/LM MEETING NOTICE**  
**Institute of Electrical & Electronic Engineers, Syracuse Section**  
**IEEE – all Life & Section Members, Spouses & Guests**

**When:** Tuesday, November 13, 2007

**Topic:** Cochlear implants: Electronic hearing for the profoundly deaf

**Speaker:** Dr. Robert L. Smith  
Director, Institute for Sensory Research (ISR)  
Syracuse University

Dr. Robert L. Smith is Director of the Institute for Sensory Research (ISR) at Syracuse University and Professor in the Department of Biomedical and Chemical Engineering. He has Bachelors (CCNY) and Masters (NYU) degrees in electrical engineering, and a PH.D. in Sensory Research from Syracuse University. He is a Fellow of the Acoustical Society of America, and a founding officer of the Central New York chapter of the Engineering in Medicine and Biology Society of IEEE.. Dr. Robert L. Smith recently completed a 6 1/2 month sabbatical studying cochlear implants at the House Ear Institute. His professional focus is now on developing a laboratory for the study and development of cochlear implants at ISR.

**SUMMARY:** Cochlear implants (CIs) are bionic interfaces with the auditory nervous system which provide "electronic hearing" for over 100,000 profoundly deaf CI users worldwide. CIs bypass the acoustic pathway to the inner ear, and directly stimulate the auditory nerve. The basic operating principle of the CI, based on a frequency analysis of sound, will be described. It will be demonstrated that CIs omit much of the complexity of normal sound processing. However, we hear with our brains, not with our ears, and in the best cases CIs provide enough information for the brain to correctly interpret many environmental sounds, including speech. Both successes and shortcomings of implants will be discussed along with current technical and sociological challenges.

**DATE/TIME/PLACE:** Tuesday, November 13 at 10 AM till noon at the Greater Syracuse Business Center, 1201 East Fayette Street, Syracuse.

Our usual coffee, tea & doughnuts and conversation at 10 AM followed by the presentation at 10:15 AM. NOTE: John Luebs has provided us with a number of copies of the two group pictures taken after our Welch Allyn tour back in June and we will have the pictures for you at this November meeting.

(Questions: call George Kirkpatrick 458-0082 or e-mail: [georgekirk@ieee.org](mailto:georgekirk@ieee.org) or Lou Ragonese 652-8383; [lragonese@ieee.org](mailto:lragonese@ieee.org))



## Syracuse Section of the American Chemical Society

Thursday November 15, 2007  
6 ~ 9 PM

### 100-Year Celebration

- ⊙ Science displays from local colleges & industries
- ⊙ Food and beverages
- ⊙ IMAX movie: The Alps

#### Location

Milton J. Rubenstein Museum of Science & Technology

#### Cost

- ⊙ Free to local section members & student affiliate members
- ⊙ \$5 for the first guest of local section members or students
- ⊙ \$10 for all others

#### Reservation deadline

**November 8, 2007**

E-mail: [stanky@twcny.rr.com](mailto:stanky@twcny.rr.com)

Phone: Robert Stankavage 315.633.9508

**Directions:** See [http://www.most.org/2\\_mi\\_directions.cfm](http://www.most.org/2_mi_directions.cfm)



October 16<sup>th</sup>, 2007

This last October 4<sup>th</sup>, the Syracuse chapter of IEEE-EMBS hosted an evening event named Health Tech 2007. 43 guests arrived for an informative, networking event at the Welch Allyn Lodge. The attendees included Professionals, Professors, Students and other interested individuals from Syracuse, Rochester, and area businesses and Colleges.

The first speaker was Dr. Robert Corona, Welch Allyn Chief Medical Officer. His presentation was Disruptive Innovations in Healthcare. The second speaker was Dr. John Fieschko, Executive Director of CNY Biotechnology Research Center. His presentation was Innovations in Bioprocess Engineering in CNY. The presentations and discussions that followed were very interesting to those in attendance.

The EMBS officers are now evaluating their inaugural event and starting plans for Health Tech 2008. They might even have more than one event in 2008.

Best regards,

John Ivanov,  
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A.S.Q. C.C.T.  
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Attn: John Ivanov, Manufacturing Engineering  
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Date	Time	Sponsor	Location	Topic	Contact
November 1	6:00 PM	IEEE Computer Chapter & Student Branch open to all members	Syracuse University	Verizon Networking Trends	<a href="#">Craig Cobb</a>
November 5	2:00 - 3:30 PM	IEEE AP/MTT Chapter & SU EECS Dept. open to all members	323 Link Hall Syracuse University	<a href="#">"A Single Layer Reflectarray Antenna for C/X/Ka Bands Applications"</a> Prof. Atef Elsherbeni The University of Mississippi	<a href="#">Ercument Arvas</a>
November 7	11:00 AM	IEEE Rochester Electron Devices & Circuits & Systems Chapters	Xerox Auditorium, Gleason Building Rochester Institute of Technology Rochester, NY	<a href="#">31st Annual EDS/CAS Activities in Western New York Conference</a>	<a href="#">Dr. Karl D. Hirschman</a>
November 9	8:30 AM - 5:00 PM	IEEE Computer Chapter & Student Branch open to all members	Goldstein Student Center Syracuse University	<a href="#">IEEE Upstate NY Workshop on Communications, Sensors and Networking '07</a>	<a href="#">Lisa Osadciw</a>
November 9	12:00 PM	IEEE Syracuse Section open to all members	<a href="#">C&amp;S Engineers</a>	Section Executive Committee Meeting	<a href="#">Mike Hayes</a>
November 12		IEEE Syracuse Section, TACNY & other societies	<a href="#">Holiday Inn Liverpool</a>	CNY Engineering Expo	<a href="#">Mike Hayes</a>
November 13	5:00 PM – Networking 6:00 PM – Dinner 6:15 PM – Presentation	Illuminating Engineering Society open to IEEE members	Steak and Sundae Restaurant 1830 Teall Ave Syracuse, New York	<a href="#">Lighting Design Process for Interior Applications</a>	<a href="#">Paul Mahaney</a>
December 14	5:50 PM	IEEE Computer Society Chapter open to all members	RSVP	Holiday Party hosted by the Cobb's	<a href="#">Craig Cobb</a>
January 4	12:00 PM	IEEE Syracuse Section open to all members	<a href="#">C&amp;S Engineers</a>	Section Executive Committee Meeting	<a href="#">Mike Hayes</a>



IEEE Societies, Sections, and Chapters offering Continuing Education Units (CEUs) for courses, workshops, lectures and tutorials being offered at their meetings or conferences must first register the activity with the IEEE Educational Activities Department (EAD) to ensure that the CEUs offered are valid. IEEE is an Authorized CEU Provider through the International Association for Continuing Education and Training. If your organization is offering CEUs but fails to register the course(s) with EAD, the CEUs are not valid. The Educational Activities Department is responsible for maintaining all CEUs offered by the IEEE as well as keeping a registry of students and the CEUs they have earned for up to seven years. Student transcripts are available upon request. For more information on IEEE CEUs and offering them for your continuing professional development events, contact Celeste Torres, telephone +1 732 981 3425; "MailTo:c.torres@ieee.org"

## 1. Innovators in Health Care

Read about the innovative work of four IEEE members in health-care technology. They've developed an unusual way to steer a wheelchair, implants that treat epilepsy and glaucoma, and devices that operate when sound travels through human bones. You can learn about them at <http://bmsmail3.ieee.org:80/u/7488/02367415>

## 2. Member Feedback Helps Tailor Features to IEEE.tv

For 13 months, IEEE members were trying out the test version of IEEE.tv and providing feedback on what they thought of the online television network. The IEEE listened and relaunched IEEE.tv in September with a new look, additional tools, exclusive features for members, and a plan to go beyond the virtual walls of the IEEE. For more information, visit <http://bmsmail3.ieee.org:80/u/7489/02367415>

## 3. Spotlight on Four Fellows

Learn about four new IEEE Fellows whose achievements include pioneering work on digital control of electric drives, improvements to engineering education in India, the development of microprocessor circuits, and wireless broadband communications and local area networks.

## 4. Six Publications to Debut in 2008

From renewable energy sources to computer games, six new IEEE journals will cover an array of topics in engineering and computer science.

## 5. IEEE History Center Launches Hunt for Antiques

When you think of antiques, electrical items probably don't spring to mind. But electrical technology goes back to the early 19th century. To help draw that line from past to present, the IEEE History Center has launched a column in its newsletter featuring electrical and computing relics that IEEE members come across in their travels.

## 6. Student Branches Boost Membership With Hands-on Projects

Although some students love solving complicated problems on paper, most long for an opportunity to funnel their expanding theoretical knowledge into tinkering with real-world projects. Noting that desire, several IEEE student branches have begun offering hands-on projects that teach engineering basics.

**CENTRAL CHAPTER  
NY STATE SOCIETY OF PROFESSIONAL ENGINEERS  
NEWSLETTER**

**NOVEMBER 2007**

**PRESIDENT'S MESSAGE**

As you may have noticed, this is our first newsletter since June. So what have we been doing? We've been mostly working on the **Central New York Engineering Expo** and have just completed the schedule. Despite rising costs, the price remains the same. You can get 7 PDHs for \$80, including lunch and coffee breaks. The Expo is scheduled for Monday, November 12, 2007 and will again be held at the Holiday Inn in Liverpool. Please see our web site at [www.cnype.org](http://www.cnype.org) for a link to the site where you can register on line and pay via credit card.

In order to reduce our costs, **THIS WILL BE THE LAST HARD COPY VERSION OF THE NEWSLETTER.** There will be no newsletter in December. Our January 2008 newsletter will be electronic only and emailed to all members we have an email address for. **Please send your email address to NSPE if you haven't already done so.** You can also email it to me at [m.hayes@ieee.org](mailto:m.hayes@ieee.org) (home email address) if you prefer. Of course, the current newsletter as well as past issues will continue to be posted on our [www.cnype.org](http://www.cnype.org) web site.

Due to relatively low attendance at our lunch meetings, we are going to try breakfast "PDH meetings" starting in January. We'll have the details in our January newsletter. We are also working on an E-Week program in February.

We have begun to explore how we can support K-12 education with an eye towards getting students interested in STEM (science, technology, engineering, and math) with an emphasis on engineering. In addition, the Chapter is considering ways of becoming more active in the CNY community by providing or directing attention to sources of engineering expertise where that might be appropriate and helpful. Right now, this idea is at a very preliminary concept stage so your views are critical to further development. **Please let me know if you have any suggestions.**

I hope to see you at the Expo.

**Mike Hayes, PE**



# FUTURE NEWSLETTERS BY EMAIL OR WEBSITE ONLY

See president's message above.

## Calendar

Date/Time	Topic	Speaker	Location	Cost	Contact
November 12, 2007	Various 7 PDHs	Various	Holiday Inn Liverpool	\$80	Mike Hayes, PE; (315) 455-2000; mhayes@cscos.com
January 2008	TBD	TBD	TBD	TBD	"PDH" breakfast
February 2008	TBD	TBD	TBD	TBD	E-Week event

## WEBSITE

To keep current right up to the event, go to our website at <http://www.cnype.org>

## THANK YOU

We continue to seek donations for your Chapter's Scholarship Fund. The fund is supported by contributions from firms and individuals who take an active interest in the future of our profession. Current contributors include:

- Associated Builders & Contractors
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**TIME SENSITIVE MATERIAL  
POSTMASTER, PLEASE RUSH**



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