



IEEE Pittsburgh Section
Bulletin



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Contributors: Andrew Novotny, Bob Grimes, Ralph Sprang, Bill Pruss, and Dave Vaglia.

All announcements for publication in a particular month's bulletin are due to the Editor by the 20th of the previous month. The accuracy of the published material is not guaranteed. If there is any error, please bring it to the Editor's attention. The Section's web site www.ewh.ieee.org/r2/pittsburgh has past issues of the bulletin and lots of other useful information

From the Chair

Greetings, friends. I trust you are all doing well.

The Pittsburgh Section will be relaxing a bit over the summer, as we typically do. There will still be some programs and meetings over the summer, but not so many. Knowing that our members take vacations and travel in the summer and that everyone needs a break from time to time, we scale back our activities.

We will resume the full schedule in September. The Section Picnic in September would be a great opportunity to get involved and meet the other Section members. The picnic will be held at North Park this year. Details will be available in the September Bulletin

The executive committee is starting the process of nominations and elections for the next year. The elected positions in the Section are Chair, Vice Chair, Treasurer, and Secretary. If you are interested in serving as an officer of the Section, please let me or another current officer know. Volunteer positions, appointed by the chair, are also available. If you have questions or need further information, please feel free to contact me or any other Section officer.

Our Section grows through the introduction of new ideas and different perspectives. Most of the current group of officers and volunteers has served the Section for several years. It would be wonderful for some new folks to get involved and give some of the others a chance to take a break. Please consider serving your Section and sharing your ideas.

At the August executive committee meeting, the budget for the next year will also be developed. If you have ideas for meetings, topics, or special events, please tell the appropriate chair so that funding for these events can be allocated in the budget.

Section

Chair & Awards Co-Chair – Ralph Sprang
Vice Chair – John Twigg
jtwigg@ascent-systems.com (412) 795-4444

Secretary – Joe Cioletti
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Treasurer – Harold Hagerty, P.E.
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Webmaster – Andrew Novotny
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Immediate Past Chair – David J. Vaglia, P.E.
davevaglia@ieee.org (412) 491-6944

UpperMon Subsection
Chair: Dr. Dimitris Korakakis
Dimitris.Korakakis@mail.wvu.edu
(304) 293-0405 x2512

Chapters

Communications Society
Chair: Phil Cox
p.e.cox@ieee.org (724) 443-0566

Computer Society – Chair: John Twigg (see above)

Engineering In Medicine & Biology Society
Co-Chair: Bob Brooks
rbrooks@medrad.com (412) 767-2400 x3506
Co-Chair: Dr. Zhi-Hong Mao
maozh@engr.pitt.edu (412) 624-9674

Electromagnetic Compatibility Society
Chair: Michael J. Oliver
emi@mair.com (814) 763-3211

Power Engineering & Industry Applications Societies
Chair: Andrew Novotny (see above)

Magnetics Society – Chair: Dr. Ganping Ju
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Robotics Society – Chair: Dr. Guy Nicoletti
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Signal Processing Society – Chair: Dr. Heung-No Lee
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Society on Social Implications of Technology
Chair: Joe Kalasky, P.E.
j.kalasky@ieee.org (724) 838-6492

Affinity Groups

GOLD – Chair: Andrew Rydholm
andrew_rydholm@yahoo.com (412) 261-3200 x281

Life Member – Chair: Bob Grimes, P.E.
r.d.grimes@ieee.org (412) 963-9711

Women In Engineering – Chair: Jennifer Ploskina
jennifer1ploskina@eaton.com

Committees

Consultants Network

Professional/Career Activities (PACE)
Chair: Joe Kalasky, P.E. (see above)

Student Activities

Membership Development

Publicity – Chair: Thomas Dionise, P.E.
ThomasJDionise@eaton.com (724) 779-5864

2008 PES General Meeting Technical Program Chair – Dr. Kalyan Sen (Kal) senkk@ieee.org (724) 696-1611; General Chair - Dave Vaglia (see above)

- ***A Night With the Pittsburgh Pirates and Smash Mouth Concert***

Date: Friday, August 17, 2007
Time: Game starts at 7:05 PM
Place: PNC Park, North Shore, Pittsburgh
Cost: \$16.00 per ticket
Sponsors: PES/IAS Chapter
RSVP: By sending your check payable to “IEEE Pittsburgh Section” to:
Andrew Novotny
514 Price Ave
North Braddock, PA 15104

Come out and enjoy a fun-filled evening at PNC Park with the members and friends of the Power Engineering Society, Industry Applications Society and the IEEE Pittsburgh Section. It will be **Skyblast Strike Two Fireworks and Smash Mouth in Concert** after the Pittsburgh Pirates take on the Philadelphia Phils.

Be sure to reserve your seats early. Contact Andrew Novotny at (412) 351-4954 or <mailto:Andrewnovotny@ieee.org> if you have any questions.

- ***Local Committee Update for July 2008 PES General Meeting to be held in Pittsburgh***

A Local Committee meeting was held Wednesday evening, July 18 at the Boulevard of the Allies Panera Bread in Oakland to continue preparation for the 2008 conference. The meeting recapped what was learned from the PES 2007 Tampa Conference that was held at the end of June. At the Tampa conference, we met with the local committee and IEEE PES staff, and shadowed the main organizers to see first hand what can occur at our conference. In addition, details and concerns about the various functions that we need supported by our volunteers were discussed. Everyone was enthusiastic about this opportunity to show off our IEEE section and city.

The following dates we scheduled for the next Local Committee meetings, so mark your calendars:
August 29 - September 27 - October 25 - November 29

We plan to continue to hold the meetings at the Boulevard of the Allies Panera Bread in Oakland.

Our need for volunteers will continue to grow as we approach the conference. Please consider helping in our preparation. Spouses are also needed to help plan and support the “Partners Program” which is being headed by Angela Vaglia (vagliaac@verizon.net).

Thanks for your support!

Dave Vaglia, P.E
Chair, 2008 IEEE Power Engineering Society General Meeting
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- *History Dinner - Pictures*

The recent history dinner presenter, Joe Cioletti, submitted these pictures:





- ***IEEE Life Members***

The Life Member group will start the fall with a lunch and meeting at the U/P Greensburg campus.

A speaker is being arranged, and Guy Nicoletti will outline how the LM group will participate in the Freshman Engineer Mentoring Program on campus. This will be a parallel to the mentoring program as conducted at the main U/P campus.

Tentative date is Thursday Sept. 20 at 11:30am. Final arrangements will be announced in the September Bulletin.

Modern Control Room Simulator for Nuclear Power Plants Tour



Date: Wednesday, September 26, 2007

Time: 6:00 PM Light dinner
6:45 PM Nuclear Energy Update
7:00 – 8:30 PM Tours

Place: Westinghouse Energy Center, Monroeville, PA Directions below

Cost: No charge to IEEE members and their guests

Sponsors: IEEE Pittsburgh PES/IAS
All IEEE members and their guests are welcome

RSVP: **Required** to Dave Vaglia at davevaglia@ieee.org. Please supply your citizenship and company affiliation. There is limited space on these tours, so RSVP early to assure getting on the list.

Note that this is a repeat of the tour that was held in May this year. Those members that responded for the May event but were placed on the waiting list will have first priority.

Westinghouse will be providing a tour of two areas, the AP1000 Nuclear Power Plant Control Room Simulator that is under development, and the Customer Center for an overview of their I&C technology.

The AP1000 is an advanced 1000 megawatt (electric) nuclear power plant that uses the forces of nature and simplicity of design to enhance plant safety and operations and reduce construction costs. The control room design uses compact workstations with soft controls and displays to monitor and control the plant. Four AP1000 plants have been sold to China and are expected to come on line in 2013. US utilities have likewise recognized the value of this design and have tentatively chosen the AP1000 for 12 domestic plants.



- ***Directions to the Westinghouse Energy Center***

From Pittsburgh take Interstate 376 East (Parkway East outbound). Take Exit 14A to Monroeville/Rt 48 South. Cross Business Rt 22 at the traffic light and proceed on Rt 48 South (Moss Side Blvd) approx 0.5 mile (two traffic lights). At the 2nd traffic light (an Exxon Mobil station is on the right and a Sunoco station is on the left) turn left onto Northern Pike. Proceed approx 0.2 miles and turn right at the 1st traffic light onto Westinghouse Dr. Travel 0.7 miles (past the guard stand) to the 3 flags where the building's main entrance is located. Parking in the evening will be plentiful. Use the main entrance and check with the security guards inside. You will be directed to the proper room for your meeting.

From the PA Turnpike, take Exit 57 (Monroeville). After the toll plaza, get in the left lane to get on Business Rt 22 West. At the 1st traffic light, turn left onto Rt 48 South (Moss Side Blvd) and follow the above directions.

- ***A new benefit for future city mentors:
Volunteering produces health benefits***

The following article was provided by Bill Pruss of the Future City Competition. It has application to volunteering for IEEE activities as well.

To all the engineers who want to stay healthy, the evidence is in: Watch your diet, exercise regularly, and volunteer as a Future City mentor.

It's true. Engineers who have mentored in the National Engineers Week Future City™ Competition often say that their participation rejuvenates their career outlook and makes them happier, but a comprehensive review of more than 30 recent scientific studies on volunteering shows that their efforts may make them healthier, too. Although none of the studies specifically cited Future City nor the engineering profession, the findings seem to indicate that engineers and Future City make for a healthy mix.

Engineers who feel pressured by their work, for example, may well find themselves more at ease after mentoring, since volunteering has been proven to reduce stress. Similarly, engineers who grapple with highly detailed tasks can benefit from mentoring, as volunteers were proven to have higher functional abilities. Volunteers were also found to have increased longevity and improved cardiovascular health. The review, *The Health Benefits of Volunteering: A Review of Recent Research*¹, was released in May 2007 and compiled by the Corporation for National & Community Service, an independent federal agency.

Every year, hundreds of engineers volunteer as mentors in the annual Future City Competition, the nation's largest and most successful not-for-profit engineering education program. Middle school students work with a teacher and mentor as they create cities of tomorrow using SimCity 3000, build a large, 3-D tabletop model, write an essay, and prepare an oral presentation. More than 30,000 students from 1,000 schools participated in Future City in 2006-07. Winning teams from 38 regional competitions receive an all-expense-paid trip to the National Finals in Washington, D.C., February 18-20, 2008, during Engineers Week, co-chaired by IBM and the Chinese Institute of Engineers (CIE-USA).

The studies found that an average of two hours of service a week were the ideal amount of time

to receive the beneficial effects. Coincidentally, that is almost precisely how long Jennifer Partlan, a control and system engineer for Jacobs Engineering in Southfield, Michigan and a Future City mentor since 2005, says she spends helping her student team.

“My company is very supportive and they allow me to leave early on the days I meet with the team. I make up the hours throughout the rest of the week,” says Partlan, “and it’s usually only an extra two hours a week.”

For Partlan, it’s not her personal health, but the health of the profession that drives her to volunteer. “There aren’t any TV shows that portray engineers, but there are tons of lawyer shows, CSI shows, doctor shows. We need to give that kind of visibility to engineering,” she says. “I find time to mentor because we need to ensure our future in the United States and get kids excited to be engineers.” Her efforts have certainly generated excitement among her students at Helen Keller Middle School in Royal Oak, Michigan, who placed third in the 2007 Future City National Finals.

Companies, too, find benefits in volunteering. Partlan notes that Jacobs Engineering receives positive exposure in the community when she mentors a Future City team. “It’s a great way to advertise ourselves as a community service friendly company, which helps in recruiting potential employees,” she says, “and I can network with other engineers on the day of the competition and perhaps bring new business to our company.”

For many engineering firms, volunteering is simply part of a well-rounded company profile. Long-time Engineers Week supporter IBM had more than 4,000 employees volunteer in EWeek activities in 2007. The company says that number marked an eight percent increase in employee volunteers from 2004, and included 1,700 women employees, an increase of six percent, and 1,000 under-represented minority employees, an 18 percent increase. Those efforts helped reach more than 100,000 girls and 66,000 under-represented minority students through visits to schools, events at IBM sites, and other community activities.

“We’ve long understood that the young people who participate in Future City enjoy a wide range of educational benefits and, increasingly, we’re beginning to understand that benefits also extend to those who do the giving,” says Future City National Director Carol Rieg. “Companies establish a well-regarded reputation in the community, the engineering profession receives increased interest from future employees, and now we see direct, proven benefits to volunteers themselves. That’s a healthy situation across the board.”

Rieg noted that summer and early fall is the ideal time to consider mentoring a Future City team. “By starting now, mentors are ready to jump in when the students begin their Future City projects with the new school year,” she says. “Think of it as part of a healthier lifestyle.”

For more information on how to mentor a Future City team in the Western Pennsylvania and West Virginia areas, contact Pittsburgh Regional Future City Mentor Coordinator Werner Loehlein at (412) 395-7363 or werner.c.loehlein@usace.army.mil or visit www.futurecity.org and click on “Register / Register as an Engineer.” Engineers will be contacted by their area’s regional coordinator.

¹ http://www.nationalservice.gov/about/role_impact/performance_research.asp#HBR

- ***Mark Your Calendars: Section Picnic - Sept. 15 - North Park, Details to Follow.***

2007 Calendar – Meetings of IEEE Pittsburgh Section

	Jan	Feb	Mar	Apr	May	June	July	August	Sept	Oct	Nov	Dec
Executive Committee	18 - 7pm Panera Bread Oakland	15 Panera Bread Oakland	15 Panera Bread Oakland	19 Panera Bread Oakland	17 Joe Mama's Oakland	21 Joe Mama's Oakland		16 Joe Mama's Oakland				
Section		17 Engineers Week table	30 SciTech			28 History Dinner			15 Picnic North Park			
Communi- cations					8 Terahertz Imaging						10 Tour of Electro Optics Center Freeport PA	
Computer		17 Robot car race										
EMBS		28 Data Compression										
EMCS				17 Ferrites to Reduce Noise								
PES/IAS	3, 10, 17, 24, 31 PE Prep class 30 AdCom	7, 21, 28 PE Prep class 22 Early Power Frequencies	7, 14, 16, 21, 28, 30 PE Prep class 29 Pitt MBA programs	4, 11, 18 PE Prep class	9 AP1000 Control Rm Tour 31 High Res Grounding			17 Pirates game	26 AP1000 Control Rm Tour		10 Tour of Electro Optics Center Freeport PA	
Magnetics	17 Imaging Mag Surface			12 Ferrite Materials		12 Ultrafast Microscopy						
Robotics												
Signal Processing	31 Magneto- encephalogra- phy					8 Quantization						
Social Impl of Technlgy				26 Ethics & Prof Engr	24 Home- based Power							
Upper Mon			19 Commun. Train Contrl		8 Nano- materials							
Consultants Network												
Life Member		8 Wearable Computing							20 Lunch Greensburg			
GOLD												
PACE				26 Ethics & Prof Engr	24 Home- based Power							
Student Activities												