

Bulletin

IEEE Pittsburgh Section

October 2005 Volume 54, No. 14



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Contributors: Bob Brooks, George Crawford, Dimitris Korakakis, Bob Grimes, Joe Kalasky, Kal Sen, and Chuck Urso.

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

• From the Chair

Dear Members of IEEE Pittsburgh Section,

It was great to see many of you at the 8th Annual Fall Picnic sponsored by the IEEE Pittsburgh Section. The baseball outing organized by the PES/IAS chapters was also a great success. I hope that these events will continue to be popular in the coming years. On October 24, the Executive Committee of the IEEE Pittsburgh Section will pay its annual visit to the Upper Mon Subsection when it meets at West Virginia University. If you are interested in attending that meeting, please call Prof. Dimitris Korakakis at (304) 293-0405 x2512 or email Dimitris.Korakakis@mail.wvu.edu.

I urge again that more members come forward with fresh ideas and take on the many volunteer roles that will make our IEEE Pittsburgh Section vibrant. The Section Executive Committee has approved a list of candidates for this November's election; Chairman: **Ralph Sprang** and **David Vaglia**; Vice Chairman: **John Twigg**; Secretary: **Charles Urso**; and Treasurer: **Harold Hagerty**. There are two candidates for Chairman and the other candidates are unopposed at this time. Additional candidates can be nominated by petition. The last day to file additional nominations by valid petition of members is October 5.

The hardcopy of the ballots will go out by early November. You may mail the completed ballot to the following address:

**Elena Schreiber Mailstop A135
Bombardier Transportation
1501 Lebanon Church Road
Pittsburgh PA 15236-1491**

OR, you may email your choice of candidates to **both** of the following members of the Nominating Committee.

Elena Schreiber

Email: elena.schreiber@us.transport.bombardier.com

Joe Kalasky

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Kal Sen

Section

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Committees

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Publicity Chair: Thomas Dionise, P.E.
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- **Computer Forensics:**
Issues and challenges facing high tech investigators

Sponsor: Upper Mon Subsection Everyone is welcome.
Speaker: Dr Roy Nutter, West Virginia University
Date: Monday, October 3, 2005
Time: Refreshments: 4:45 PM
Presentation: 5:00 PM – 6:00 PM
Place: Room G39, Engineering Sciences Building, West Virginia University,
Evansdale Campus, Morgantown WV 26506
Parking: Parking is free at the time of the meeting. Use Lot 40 or 41 outside the Engineering
Sciences Building.
RSVP: It is not necessary to RSVP.

Roy Nutter is a Professor of Computer Engineering at West Virginia University, a Registered Professional Engineer, and a Fellow of the IEEE. His areas of expertise include embedded computers, microprocessor applications, neural networks, logic design, computer forensics, and other areas of electrical and computer engineering.

- **Designing for the User Experience**

Sponsor: Engineering in Medicine and Biology Society
Speaker: Matt Beale, President of Daedalus Excel Product Development
Date: Thursday, October 20, 2005
Time: 6:30 PM Sandwiches and mingling
7:00 PM Presentation
Place: Allegheny Conference Room
Medrad, Inc One Medrad Dr Indianola, PA 15051
RSVP: Bob Brooks (412) 767-2400 x3506 or rbrooks@medrad.com

Any device or product, particularly a medical device, must be designed with the end user in mind, whether it is a complex device or a very simple hand tool. Matt Beale will talk about designing for the user's experience. He will share his perspective on how to make products more usable and appealing with classic and personal examples. Drawing from a methods toolkit, Matt will provide practical guidelines that can be applied immediately by anyone who helps develop new products.



About the speaker: Matt Beale is a graduate of the University of Michigan and President of Daedalus Excel Product Development. He also teaches design and graduate business students at Carnegie Mellon University. At Daedalus Excel, Matt has led IDEA, Catalyst, and APEX award-winning projects and led the transition of the firm's focus from industrial design to full service product development. Matt helps clients gain a competitive edge by developing products that are visually appealing, easy-to-use, and cost-effective to manufacture. He and his firm have provided services to the Ford Motor Company, Medrad, Respironics, Glaxo and many others.

- **Life Member Meeting: Commercial Radio's Birthplace**

Date: Thursday, October 20, 2005 at 1:30 PM
Speaker: Rick Harris
Where: George Westinghouse Technical Center. Building 801, Room 2C14
RSVP: It is not necessary to RSVP.

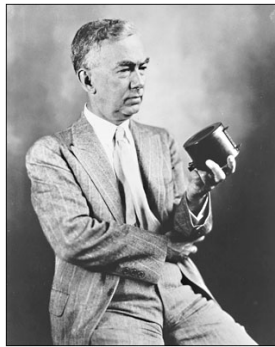
Mr. Harris is chairman of the *Frank Conrad Garage Project*, an effort to save the birthplace of radio and make it the centerpiece of a proposed National Museum of Broadcasting in Pittsburgh.

Frank Conrad was a Westinghouse engineer who experimented in his garage with his own radio station, 8XK, which was licensed by the U.S. Commerce Department as an "amateur" station. He made the first commercial broadcast in 1920. That same year, at Conrad's urging, Westinghouse built a 100-watt transmitter that Conrad designed and tested. Just in time for the 1920 presidential election results, the U.S. Department of Commerce licensed commercial station KDKA.

The proposed National Museum of Broadcasting would include the garage that once belonged to Conrad. The presentation will cover the history of the garage, the involvement of the Pittsburgh Antique Radio Society and the National Museum of Broadcasting, and plans for the future.



The garage



Frank Conrad

Directions: The Center is easily accessed right at Exit 10A of the Parkway East in Churchill Borough. The cafeteria in Building 401 is open from 11:30 AM to 1:00 PM and provides a convenient place to buy lunch before the meeting. The guard at the gate can direct you to the meeting location and parking.

- **Novel AlGaN Active Regions for the Development of III-Nitride based UV-Emitters**

Sponsor: Upper Mon Subsection Everyone is welcome.
Speaker: Anand Sampath, Army Research Laboratory (ARL)
Date: Monday, October 24, 2005
Time: Refreshments: 4:45 PM Presentation: 5:00-6:00 PM
Place: Room G39, Engineering Sciences Building, West Virginia University
Evansdale Campus, Morgantown WV 26506
Parking: Parking is free at the time of the meeting. Use Lot 40 or 41 outside the Engineering Sciences Building.
RSVP: It is not necessary to RSVP.

Anand Sampath is a senior researcher in the Army Research Laboratory. He is working on the development of UV-Emitters using nitride-based semiconductor devices for biosensor applications.

• Life Safety in Industry

Sponsored by: Power Engineering Society and Industrial Applications Society
Date: Tuesday, October 25, 2005
Speaker: Barry Brusso, IEEE Fellow, IEEE Distinguished Lecturer
Place: Westinghouse Energy Center, Monroeville
Time: Social: 6:30 PM Program: 7:00 PM
RSVP: Chuck Urso at curso@litechtechnologies.com or (412) 338-4871

Industrial life safety systems are not limited to security and fire protection only, they include hazardous area, environmental and chemical protection, and emergency evacuation systems. This presentation will provide insight into these systems and explain the technologies and human factors fundamentals one needs to know in order to design and apply them in industry to meet life safety objectives. This discussion will be of interest to a wide variety of members and non-members alike. Directions to the Westinghouse Energy Center can be found on page 6.

• Consultants Network Meetings

If you are a consultant offering engineering services or thinking about becoming one, the Consultants Network is for you. Network with other consultants and be included in CN's on-line listing of consultants, which is used by companies in need of consultants. For more information, contact George Crawford at (412) 675-9164 or gwc2@psu.edu.

At the September meeting of the Consultants Network, Steve Blaney gave a presentation entitled "Pros and Cons of Starting Your Own Consulting Practice". Plans for a meeting on **Wednesday, October 26** are being finalized and will be emailed to all CN members. The meeting will be held at the Westinghouse Energy Center. (Directions on page 6.)

• Medical Imaging: At the Interface of Medicine, Physics, and Engineering

Sponsored by: Upper Mon Subsection Everyone is welcome.
Speaker: Dr. Susan Lemieux, West Virginia University
Date: Monday, November 7, 2005
Time: Refreshments: 4:45 PM Presentation: 5:00-6:00 PM
Place: Room G39, Engineering Sciences Building, West Virginia University
Evansdale Campus, Morgantown WV 26506
Parking: Parking is free at the time of the meeting. Use Lot 40 or 41 outside the Engineering Sciences Building.
RSVP: It is not necessary to RSVP.

Susan Lemieux is an Assistant Professor of Radiology at West Virginia University. She is leading a research team exploring physiological imaging of the kidney and is actively involved in functional neuro-imaging research. Her other duties include involvement in the clinical operation of the WVU MRI scanners, teaching radiology residents, and teaching WVU engineering students.

• Technical Job Placement Strategies - Interviewing

Sponsor: Professional Activities Committee for Engineers (PACE)
Speaker: Mr. Mike Sylvester, Vice President, AllTek Staffing and Resource Group, Inc.
Date: Thursday, November 10, 2005
Time: 6:00 PM – 7:00 PM
Place: University of Pittsburgh, 360 Benedum Hall, Oakland
Food: Complimentary pop and snack foods before and after the meeting.
RSVP: Absolutely necessary. See below.

In our continuing series offering employment strategy to IEEE Members, the Pittsburgh Section is pleased to announce that Mr. Mike Sylvester of AllTek Staffing and Resource Group, another major technical consulting firm in the Pittsburgh area, will make a specialized presentation to our section. Building on our successful August meeting about how to utilize technical staffing firms, Mr. Sylvester will emphasize the *Interview Process* for both attaining new employment and upward mobility in your present firm. After months of effort to get an interview, it's possible to ruin your chances for the job in the first five minutes of that interview. Don't let it happen to you.

AllTek is strictly focused on filling professional technical positions, both contract and permanent, in the greater Pittsburgh manufacturing, engineering, and construction industries. All engineering and IT disciplines are served. This meeting is suggested for those Members who are unemployed, under-employed or seeking change.

Attendance is limited to the first 20 IEEE Members (any grade, any Section) who reserve space. New Member Applicants are also eligible to reserve a space, but must bring their completed application and a check for their membership fee to this meeting.

Reserve your space by calling or emailing Joe Kalasky at (724) 838-6492 or j.kalasky@ieee.org. Please supply your name, telephone number, email address and IEEE Member Number. If you reserve and then cannot attend, please notify Joe Kalasky as we expect a waiting list.

Joe Kalasky is a Member of the IEEE-USA Employment and Career Strategies Committee and former Chair of the IEEE Global Industry Relations Committee.

Directions to Westinghouse Energy Center (for October 25 and October 26 meetings)

From Pittsburgh, take Interstate 376 East (Parkway East). Take Exit 14A to Monroeville. Cross Business Rt 22 at the traffic light and proceed on Rt 48 South (Moss Side Blvd) approximately ½ mile (two traffic lights). The second traffic light is at a four-way intersection with an Exxon Station on the right and Sunoco station on the left. Turn left onto Northern Pike. Proceed approximately 0.2 miles and turn right at the first traffic light onto Westinghouse Drive. Travel 0.7 miles to the three 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 auditorium for the presentation.

If traveling 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 first light, turn left onto Rt 48 South (Moss Side Blvd) and follow the above directions.

2005 Calendar Meetings of Pittsburgh Section of IEEE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Exec.Comm.	20 Point Park Univ.	17 UPitt Oakland	17 CMU	21 UPG	26 Papa J's	16 UPitt Oakland	No meeting	18 D'Imperio's	10 Settlers Cabin	24 WVU	17 UPG	15 D'Imperio's
Section		19 Robot Car Race		28 History Dinner					10 Picnic			
Life Member	Westinghouse Museum tour & Nuclear Pgm					23 Distributed Generation		18 Fuel Cells		20 Comm. Radio Birthplace		
Communication			25 New Tech. for Tele. Mon.									
Computer			16 Next Gen Search Eng									
EMB										20 Design for User		
PES/IAS	26 Adaptive Identification	23 Rail Guns	30 Project Management	28 Electric Transmission: End of an Era	31 Wind Farm Tour	20 Robot Servicing of Hubble 29 Shielding Theory	27 Electric Vehicles & Land Speed Record	26 Pirates game	28 Nuclear Control Room simulators	25 Life Safety in Industry		
Magnetics			31 Half Metal Spin Torque	29 Magnetic Recording					29 Dyna in micro & nano			
Robotics					5 Miniature Micro/Nano Robotics	20 Robot Servicing of Hubble						
Signal Processing				20 Wireless Ntwk Des.					13 Bounds in MIMO			
Upper Mon										3 Computer Forensics 24 UV emitters	7 Medical Imaging	
Consultants Network				26 Contract Employment	24 Consult Acct reqmt.	28 Non-disc. Agreement	26 Net-working		27 Starting Cons.Bus.	26 TBD		
GOLD					21 1st mtg							
Prof Activities (PACE)								16 Using Tech Staff Firms			10 Inter-viewing	
Students Activities				15 GE Plant tour								

TBD = to be determined