



Pittsburgh
Section
Bulletin



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Included in this issue:

- *Joe's Jots*..... 2
- *Converged Services and Next Generation Networks* 3
- *Compunetix Tour*..... 4
- *Building High-Performance Engineering Teams*..... 4
- *Interactive Employment Forum*..... 5
- *The Mysteries of Inductance*..... 6
- *PES/IAS Chapters win 2010 IAS Outstanding Large Joint Chapter Award*..... 6
- *2010 PES Chapter Outstanding Engineer Award Announcement*..... 7
- *Congratulate Our New Senior Members:*..... 9
- *Managing Your Career like a Business* 9
- *Fun with Electrical Engineering @ St. Edmund's Academy*..... 10
- *Local Professional Activities Chair Presents Award in Osaka, Japan*..... 11

Editor: Philip Cox, p.e.cox@ieee.org; Contributors: Joe Cioletti, Rajiv Garg, Joe Kalasky, Kal Sen, Mey Sen, Ralph Sprang 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

• *Joe's Jots*

The weather has been flirting with unseasonably warm and cold days, but the sunshine is finally winning :-)

The talent and enthusiasm that surrounds the IEEE ExCom makes it both a pleasure and a personal challenge! We invite all IEEE members to become more involved with the Pittsburgh and Upper Mon Sections, where there is room for everyone's career growth!

This month, we will celebrate our history dinner at the University of Pittsburgh, where I am personally looking forward to hearing a former professor, Dr. Marlin Mickle, speak about the impact of technology that originated in the Pittsburgh region on our modern society as well as a tour of the RFID laboratory. So much technology that was originated here we take for granted. I challenge our membership to help better communicate our region's innovative and historical role to the public.

In particular, we need to better claim Pittsburgh's pivotal role in the development and evolution of the computer. One project which we are focusing is the vintage computer exhibit, where we have already received many responses that offer the use of computer artifacts to support such an effort. There is also a wealth of creative participants, having connections with Pitt and CMU, which still live in the Pittsburgh area – having many stories that need to be told! More to follow!

“I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Being willing is not enough; we must do.” —Leonardo da Vinci

Keep smiling ☺ – Joe

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Computer Society – Chair: Ralph Sprang, rsprang@ieee.org

Components, Packaging, and Manufacturing
Technology/Electron Devices Societies – Dr. Louis Hart and
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Engineering In Medicine & Biology Society
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Electromagnetic Compatibility Society
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Power & Energy & Industry Applications Societies
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Consultants Network

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Chair: Joe Kalasky, P.E. (see above)

Student Activities – Rajiv Garg, rajivg@computer.org

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- ***Converged Services and Next Generation Networks***

Speaker: Dr. Bhumip Khasnabish, a Distinguished Lecturer of the
Date: Thursday, May 13, 2010
Time: Social: 6:30 PM, Talk: 7:00 PM
Place: University of Pittsburgh, School of Information Science, room 501, 135 Bellefield Ave., Pittsburgh, PA 15213, see map: <http://www.tour.pitt.edu/tour-091-map.html>
Sponsor: IEEE Communications Society; for information, contact Philip Cox; p.e.cox@ieee.org



Abstract: Commoditization of voice service has reached such a state that anyone with a server to provide registry and addressing (identification) functions can offer it to the Internet community using the voice over the Internet protocol (IP) or VoIP technology. Traditional client-server model has evolved to peer-to-peer and cloud models for near-real-time voice and multimedia (gaming, video, etc.) sessions. Voice mail service is being replaced by instant messaging (for presence-announced users), use of Star codes for advanced call/session feature activation is being replaced by Web based service-provisioning interface, and so on. Similar revolution is also happening in the areas of IP-based Television (IPTV) service development and distribution. These are only a glimpse of what is possible with the new/emerging converged services paradigm. However, many issues related to reliability/availability, security/privacy, mobility, service provisioning and continuity, regulation, operations, and quality of service and experience (QoS/QoE) still remain open.

In this discussion, we will explore the current activities of the traditional service providers to find implementable and operable solutions to these problems in the evolving Next Generation Networks (NGNs). The objective is to support VoIP, IPTV, and other multimedia services /seamlessly /over a variety of interconnected networks using the emerging IP multimedia subsystem (IMS) and service-oriented architecture/network (SOA/SON) based standards.

Bio: [Dr. Bhumip Khasnabish](#) is a [Distinguished Lecturer](#) of the IEEE Communications Society. He has authored numerous patents, journal articles, Standards document, and books in a variety of areas related to converged services and new generation networking. His recent contribution entitled “Next Generation Technologies, Networks, and Services,” appeared as a chapter in the book “Next Generation Telecommunications Networks, Services, and Management,” (ISBN: 978-0-470-57528-4, Hardcover, 328 pages, April 2010, Wiley-IEEE Press, NJ, USA).



Dr. Khasnabish leads various NGN projects (IMS, Services-over-IP, NGP2P, NG-CDN, IPTV, P2P, etc.) related to prototyping, standardization, and customized deployment of multimedia services. Previously, he worked in (a) Verizon and GTE Labs on prototyping, demonstrating, standardizing, and deploying enhanced voice, data, and video services for business and residential customers, and (b) Bell-Northern Research (BNR) Ltd. designing, implementing, and leading implementation of trunking, traffic management, and alarm generation software modules of Magellan Passport® multi-service frame cell switch.

- ***Compunetix Tour***

The computer society is offering a tour of Compunetix at 6 PM on May 27. Compunetix is a long-standing industry leader in developing and using the latest skills and technologies to produce highly-sophisticated electronics systems, from PCB level assembly and testing services to highly sophisticated electronic system integration. As a vertically-integrated organization, Compunetix demonstrates that when all levels of electronics design and manufacturing are available internally, the quality of the product can be strictly controlled to the highest standards.

Dr. Lou Hart, Quality Assurance Manager, will host this tour. A previous tour of Compunetics focused on the process of manufacturing printed circuit boards. This tour will focus on assembly of printed circuit boards, including placing components on the board and soldering components.

Only a small group can be accommodated on this tour and the attendee list must be approved by the company one week prior to the event. Computer society members who register by May 7 will have priority for this event, but after May 7 any IEEE member can register if space is available. Please understand that we cannot accept “drop ins” for this event – you must register at least one week in advance to attend the tour. Register by emailing your name, telephone number, IEEE member number, and computer society membership status to rsprang@ieee.org.

- ***Building High-Performance Engineering Teams***

Presented by Society for Social Implications of Technology And Professional Activities and GOLD.

Speaker: Normand Frenette , Management Consultant

Date/Time: Thursday, May 27, 2010, 6:30 PM Westinghouse Energy Center, Monroeville, PA; Light Refreshments will be served.

Contact: Joe Kalasky j.kalasky@ieee.org or 724-838-6492; or Jason Harchick, jharchick@ieee.org. Leave: Name, Affiliation, email, and phone number. Open to Members and Non-Members

RSVP by Monday, May 24 - Early Registration is Appreciated

Abstract: Engineering is an interesting profession: We choose it because we want to create, to build, to understand. When we join corporations, we learn that we must do so within fixed schedules, tight budgets, set processes. Our results are rated, our costs scrutinized, technical snafus dissected. In this environment some teams succeed, others just survive. For high-performance teams, it is a fun, rewarding, “can’t-wait-for-Monday” experience. But this is not so for all teams.

High-performance teams have ways to work together that deliver outstanding results regardless of their environment. They assign work differently, communicate differently, set goals and deal with risk differently. Team leaders develop skills that inspire, and challenge at the same time.

The seminar reviews key “behaviors” of high-performance teams. Using real-life examples gathered across international corporations, we contrast behaviors that yield high-performance to those that do not – analyzing why and how they work. Attendees will take home key methods and best practices that can be readily used in their own teams. The seminar is constructed to provide value to Team Leaders/Managers and Team Members alike. A word of warning – this is not a project management seminar. Its focus is how engineering teams succeed.

Speaker: Normand Frenette received a B.Eng. from the Royal Military College of Canada in 1982, and M.Sc. and Ph.D. in Electrical Engineering from Queen’s University, in Kingston, Ontario, Canada in 1984 and 1987 respectively. Following a short career as a university assistant-professor, he moved to international engineering-centric corporations. He has worked in Toronto, Paris (France) & Hong-Kong (Alstom) and Pittsburgh (Ansaldo/Union Switch & Signal). He has been VP Engineering, VP Sales & Marketing, and CIO. He currently consults with international companies on various topics, including Merger & Acquisitions, Product Strategy, and Engineering Performance. He has guest lectured with CMU’s Tepper School of Business Continuing Education Programs for Corporations and the Duquesne MBA program. Dr. Frenette can be reached through his blog: Performance matters (<http://www.ktsprocess.com/highperformance/>)

**Society for Social Implications of Technology
And Professional Activities present:**

• ***Interactive Employment Forum***

Date/Time: Thursday, June 10, 2010, 6:30 PM Westinghouse Energy Center, Monroeville, PA;
Light Refreshments will be served.

Contact: Joe Kalasky j.kalasky@ieee.org or 724-838-6492; Leave: Name, Affiliation, email,
and phone number. Open to Members and Non-Members

RSVP by Monday, June 7 - Early Registration is Appreciated

Members of the Pittsburgh Technical Staffing Association will be on hand for an interactive employment forum to discuss employment opportunities, strategies and the economic outlook for members that make up the various disciplines within The IEEE. This panel of experts in technical employment represents hundreds of clients in manufacturing, construction and consulting engineering and will be covering such topics as recruiter interaction, questions to ask recruiters in order to maximize your opportunities, interviewing tips, compensation negotiation and other topics germane to technical employment.

The Pittsburgh Section is availing itself of this opportunity for our unemployed and under-employed members or anyone interested in employment opportunities. Hiring managers would also benefit from the discussion topics that will be discussed. We thank the Pittsburgh Technical Staffing Association for this offering.

- ***The Mysteries of Inductance***

Speaker: Keith H. Sueker, P.E., IEEE Life Senior Member
Date: Thursday, June 10, 2010
Time: Social 6:30 PM, Program 7:00 PM
Place: Westinghouse Energy Center
RSVP: Mey Sen, senml@ieee.org or 412-373-0117 by June 3, 2010
Organizers: Power & Energy Society/Industrial Applications Society

Abstract: We all know about inductance – it's that stuff that governs time constants and AC reactance. Yet, there are many subtleties in dealing with inductance in a dynamic environment, and the only inductance that simple formulas yield is the inductance in DC circuits with constant current. In fact, a power circuit with varying current waveforms does not even have a single defined inductance.

Mr. Sueker will explore some of these matters along with their practical effects using some examples from his work on the design of high power pulsed converters. Further, he will discuss the relationship between mutual inductances and electromagnetic forces as design parameters.

Speaker: Mr. Sueker holds an M.S.E.E. (1950) degree from Illinois Institute of Technology. He has over thirty years of design experience with Robicon Corporation. He is a Life Senior Member of the IEEE and a Professional Engineer in the Commonwealth of Pennsylvania.

DIRECTIONS TO WESTINGHOUSE ENERGY CENTER

From Pittsburgh take Interstate 376 East (Parkway East). Take Exit 84A to Monroeville. Cross Business Rt 22 at the traffic light and proceed on Rt 48 South (Moss Side Blvd) approx ½ mile (two traffic lights). The 2nd traffic light is at a 4-way intersection with an Exxon station on the right. 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 first light, turn left onto Rt 48 South (Moss Side Blvd) and follow the above directions.

- ***The IEEE Pittsburgh PES/IAS Chapters win 2010 IAS Outstanding Large Joint Chapter Award***

From:
Peter Magyar, IAS CMD Chair

To:
Ms. Mey Ling Sen, Pittsburgh Section IAS/PES Joint Chapter, Chair

Dear Mey Ling Sen,

I am glad to inform you that the Pittsburgh Section IAS/PES Joint Chapter has been selected by the CMD Awards Committee as the 2010 IAS Outstanding Large Joint Chapter for 2009 performance.

Please accept my sincere congratulations on your outstanding chapter activity and having been successful in the contest. The award will be presented at the Presidents Banquet of the IAS 2010 Annual Meeting, Houston, <http://ewh.ieee.org/soc/ias/2010/>. You are kindly invited to take part also at the IAS CMD Chapter Workshop, which will be organized during the Annual Meeting, and give a short presentation about your Chapter.

I wish you and your Chapter all the best and continuing your successful activity for the benefit of the Chapter Members.

Best regards
Peter

Dr.-Ing. Peter Magyar, IEEE Fellow
IAS Chapters and Membership Development Department Chair [IAS Chapters](#)

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- ***2010 PES Chapter Outstanding Engineer Award Announcement***

**John J. Paserba, Fellow-IEEE receives the
2010 Pittsburgh PES Chapter Outstanding Engineer Award**

John Paserba has been selected this year to receive the 2010 Pittsburgh PES Chapter Outstanding Engineer Award. Mr. Paserba's exemplary contributions to the IEEE and the Power & Energy Society at the local, national, and international levels, along with contributions outside of IEEE are summarized below. Please help us congratulate Mr. Paserba at the annual History and Awards Dinner on May 6th where he will be our honored guest.

IMPORTANCE OF TECHNICAL CONTRIBUTIONS



During his career, Mr. Paserba has primarily been involved with the study of power system dynamics and transients using both time- and frequency-domain techniques and the application of controls to improve power system dynamic behavior, with emphasis on power electronics/FACTS installations. Mr. Paserba has contributed to studies on: power system modeling and dynamic equivalencing; power system transient and oscillatory (small-signal) stability; voltage stability; extended-term stability study techniques and analysis; Flexible AC Transmission Systems (FACTS) installations, applications, and modeling; power system load flow, short circuit, and stability planning and system impact studies.

Mr. Paserba has published over 60 technical papers, including chapters in 4 different handbook editions. He has also taught over 40 editions of courses and seminars on power systems and electromagnetic transients on both fundamental and advanced topics. Mr. Paserba has been a member, officer, or chair of over 15 Technical Committees/ Subcommittees/ Working Groups/ Task Forces, including several that have received IEEE PES Awards and Recognition, as well as member, officer, or chair for nearly 10 administrative and operations Boards and Committees inside and outside of IEEE.

Mr. Paserba is with Mitsubishi Electric Power Products Inc, (MEPPI) Power Systems Division and is presently the Product Line Manager in the Medium Voltage Circuit Breaker Department. Mr. Paserba began his career with General Electric's Power Systems Energy Consulting Department in August 1988.

SERVICE TO IEEE

Mr. Paserba serves on the PES Governing Board as the Vice-President of PES Meetings Activities. He was Secretary/Vice-Chair/Chair for the IEEE PES Power System Dynamic Performance Committee and is presently immediate past-Chair. He was also the Chair and Secretary of the IEEE PES Power System Stability Subcommittee for over 5 years. He has sat on the Editorial Board of the IEEE Transactions on Power Systems and is currently on the editorial board of the IEEE PES Magazine "Power & Energy," where he was the Guest Editor for the September/October 2004 and 2006 issues.

In Mr. Paserba's role as IEEE Power & Energy Governing Board member (VP-Meetings), he was instrumental in bringing the annual IEEE PES General Meeting to Pittsburgh in July 2008, for which the IEEE PES Chapter served as the Local Organizing Committee. This meeting brought together

power and energy professionals achieving a record attendance for the PES General Meeting of over 2,200 attendees (representing 55 countries.)

In addition, Mr. Paserba is also active on the National Speaker List for the IEEE Student Professional Awareness Conferences (S-PAC) and was Chair (2004-2006) and Region 2 Coordinator (2002-2006) of the IEEE-USA Student Professional Awareness Committee.

For more detail about Mr. Paserba's achievements, see our Pittsburgh PES Website:
http://www.ewh.ieee.org/r2/pittsburgh/ias_pes/

- ***Congratulate Our New Senior Members:***

David Garlan
Madeleine Glick
Cameron Riviere

- ***Managing Your Career like a Business***

IEEE Pittsburgh Student Activities and Carnegie Mellon University's Heinz College jointly invited a talk "Managing Your Career like a Business" by David Bowman on April 19, 2010 at Carnegie Mellon University. The speaker, David Bowman, is a top-selling author, consultant, Fortune 500 executive, entrepreneur, educator, actor, and lecturer. David Bowman is President of the International Association of Career Consulting Firms, as well as Chairman of TTG Consultants / Arbora Global, a Human Resources consulting firm with over 200 offices in 23 countries on 6 continents. David Bowman has helped thousands of people throughout North America get promoted to better jobs with higher salaries and greater responsibilities through his books, articles, speeches, and radio & television appearances.



During this motivational and career development speech, Mr. Bowman talked about eight keys to career survival, ten tips for finding and landing your dream job, creating allies to get promotions, and strategies to be on the corporate power team. David emphasized on "awareness" of individual skills, strengths, passions, weaknesses, stresses, to find a job that enables win-win situation for both employer and employee. David also suggested the power of networking and strategies to network to land into a new job. His presentation slides can be downloaded from: <http://www.andrew.cmu.edu/user/rgarg/z/YourCareerIsLikeABusiness.pdf>. The talk attracted over 40 students and professionals and lasted about 1 hour. Rajiv Garg, on behalf of IEEE Student Activities, thanks Abhay Doshi, Tracy Linza, and Kristine Cecchetti at Heinz College @CMU for their cooperation in organizing this talk.

• *Fun with Electrical Engineering @ St. Edmund's Academy*

IEEE Pittsburgh's Student Activities has been working on starting an engineering outreach program for younger K-12 students. As part of this effort, IEEE Pittsburgh worked with St. Edmund's Academy to bring engineers into elementary school classrooms to develop interests in engineering and technology. IEEE members Rajiv Garg (Carnegie Mellon University) and Parviz Famouri (West Virginia University) visited St. Edmund's Academy (www.stedmunds.net) on April 20, 2010 to talk about basic engineering principles and in-depth about electrical motors.



Rajiv and Parviz also helped students create simple motors using

- Magnet wire (something like <http://www.radioshack.com/product/index.jsp?productId=2036277>)
- Magnet (<http://www.radioshack.com/product/index.jsp?productId=2103429>)
- D-cell battery (<http://www.radioshack.com/product/index.jsp?productId=3928387>)
- Paper-clips and rubber-band.
-

It was a really fun project and students were excited to learn about the physics behind motors. The same question "How many of you want to become an engineer?" when asked in the beginning of the session got only 6 hands but in the end got 18 hands. This small effort at St. Edmund's Academy improved (at least temporarily) the interest in engineering by 200%. It is wonderful to see a preK-8 school bring in engineers for advancing and improving the science and technology education. Efforts like these will definitely improve the number of engineers, scientists, and professionals created by the



American education system.

This event hosted over 20 fifth grade students and lasted about 2 hours. Rajiv Garg, on behalf of IEEE Student Activities, thanks Dr. William Kindler, Ms. Elizabeth Harbist, and Ms. Mindi Feldstein of St. Edmund's Academy for their cooperation in organizing this engineering outreach program.

Dr. Parviz Famouri is the author of over 70 papers in the fields of electro-mechanics and applied control. His



primary interests include design, analysis, modeling and control of electric machines, electric and hybrid electric vehicles, and MEMS. He has served as Principle Investigator on projects for NSF, DOD and NASA and has been involved with projects funded by Electric Power Research Institute and electric utilities. He is an active member of Institute of Electrical and Electronics Engineers (IEEE) professional organization (source: <http://www.lcsee.cemr.wvu.edu/faculty/faculty-detail.php?id=35&type=faculty>). Dr. Famouri is currently nominated for the position of IEEE R2 Regional Director.



Rajiv Garg is a doctoral candidate at Heinz College at Carnegie Mellon University. He earned his graduate degrees in computer science and electrical engineering from University of Southern California in Los Angeles and BS in electrical engineering from Institute of Technology, BHU in Varanasi, India. Rajiv has previously worked in varied fields ranging from information technology to power engineering in responsibilities ranging from a systems analyst to a mid-level manager. He is currently focusing on research on online social networks and innovative internet technologies. His research papers have appeared in both national and international conferences

and journals in the fields of information systems, business intelligence, robotics, artificial intelligence, transportation, and health informatics. He currently serves on the executive committee of the IEEE section in Pittsburgh, PA. Additionally, he has been chairing the annual robotic car race contest (IndEEE) held at Carnegie Science Center in Pittsburgh, PA for the last three years. Rajiv is the Chief Technology Officer of RAMS consulting and serves on the board of TTG Consultants. (source: <http://www.andrew.cmu.edu/user/rgarg/>).

- ***Local Professional Activities Chair Presents Award in Osaka, Japan***

Joe Kalasky, a Member of the IEEE History Committee and our local Professional Activities Chair was invited as guest of the Kansai IEEE Section in Japan to present an IEEE Milestone Award to the Sharp Corporation in Osaka, Japan



Kalasky with Sharp executive near Sharp headquarters in Nara Prefecture, east of Osaka



Kalasky presents Milestone Award to Sharp CEO

2010 Calendar – Meetings of IEEE Pittsburgh Section

	Jan	Feb	Mar	Apr	May	June	July	August	Sept	Oct	Nov	Dec
<u>Executive Committee</u>	21 Panera, Wilkins Twp.	18 Panera, Wilkins Twp.	18 6:30 PM Pitt Greensburg	15 Panera, Wilkins Twp	20 Compunetics Monroeville							
<u>Section</u>		20 Nat. Eng. Week			6 History, Awards Dinner							
<u>Communications</u>					13 Converged Services							
<u>Computer</u>		20 Robot Car Race			27 Compunetix Tour							
<u>EMBS</u>												
<u>EMCS</u>												
<u>PES/IAS</u>	20 Einstein	25 Var. Freq. Drives	25 Virtual Prototyping	8 PE License	6 History	10 Inductance	24 Baseball Game					
<u>Magnetics</u>												
<u>Robotics</u>												
<u>CPMT/ED</u>	26 ESD	25 Arc Fault Int.										
<u>Social Impl Technology</u>				29 Smart Meters	27 Building Teams	10 Employment						
<u>Upper Mon</u>		8 Comm. Theory	8 Low Power Electronics									
<u>Women in Eng'ing</u>	7 Managing Decisions	25 Arc Fault Int.										
<u>Life Mem.</u>				8 Ampere								
<u>GOLD</u>					27 Building Teams							
<u>PACE</u>				29 Smart Meters		10 Employment						
<u>Student Act</u>												