

The Valley Megaphone

Newsletter of the
**Institute of Electrical and
Electronics Engineers, Inc.,
Phoenix Section**
September 2010,
Volume XXIV, Number 9



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IEEE Phoenix Section on-line updates can be found at: <http://www.ieee.org/phoenix> and on LinkedIn at: <http://www.linkedin.com/groups?gid=2765918>

Please send announcements for the *Valley Megaphone* to Satish Ayer at satish.ayer@ieee.org and to Russ Kinner at r.kinner@ieee.org for inclusion in the Section Calendar.

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U – News

(for Student Members)

This U-News Page, initiated last year, will continue to serve as a focal point for communications related to Student Branch Activity. The Section Executive Committee requests student recommendations for Improvements and support in expanding student branch membership.

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Student Activities Chair

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U – Newsbytes

CONGRATULATIONS to the 2010 Graduating Classes for all schools with best wishes for continued participation as industry professionals!

- ASU Polytechnic is currently seeking Advisor for the Student Branch. Please email Nick (at email address above) with Recommendations.
- Student volunteers are being enlisted by the IEEE Event Organizers for IECON 2010 in Glendale, AZ. Details to be published as available.

Start your own MicroMouse and compete for cash prizes!

- The Section has a full tournament sized MicroMouse maze. Funding for your project may be available. For details contact the Section Student Activities Chair, Nick Leonardi at nleonardi@ieee.org.
- View pictures from the MicroMouse contest at the Southwest Area Spring 2010 meeting at <http://picasaweb.google.com/ieeegoldphx/2010IEEESWASpringMeeting> (photography by David Huerta, GOLD Affinity Group Chair)



IEEE Signal Processing Society 14th DSP & 6th SPE Workshop

**Enchantment Resort, Sedona, Arizona USA
January 4-7, 2011**

Call for Participation

The 2011 IEEE Digital Signal Processing (DSP) Workshop and IEEE Signal Processing Education (SPE) Workshop will be held jointly January 4 to 7, 2011, at the award-winning Enchantment Resort. The Enchantment Resort is located 5 miles from Sedona in Boynton Canyon, two hours north of the Phoenix / Scottsdale metropolitan area and two and a half hours south of the Grand Canyon. The venue is surrounded by the Coconino National Forest and Red Rock Secret Mountain Wilderness. The area is revered by the Apache Native Americans as the birthplace of their tribe and holds ancient ruins of Native American cliff dwellings.

The goals of the workshops are to bring together leading engineers, researchers, and educators in signal processing from around the world to discuss novel signal processing theories, methods, and applications. The DSP/SPE Workshops will feature prominent plenary speakers from the signal processing community as well as technical sessions for presenting contributed papers.

Submission of Papers	August 30, 2010
Notification of Acceptance	October 11, 2010
Authors' Registration	October 25, 2010
Submission of Accepted Camera-Ready Papers	November 8, 2010
Resort Reservation	November 15, 2010
Advance Registration	November 15, 2010

For more information, please click on the following link:

<http://www.dspe2011.org/>



Phoenix Chapter of IEEE Signal Processing Society and Communications Society



The fall period is beginning and SP/COM will be holding several meetings:

- October (date TBD) - Chapter meeting for officer elections
- November (date TBD) - Chapter technical meeting

Please contact Chapter Chair David Frakes (dfrakes@asu.edu) to volunteer or propose a speaker for upcoming meetings.

DON'T FORGET TO REGISTER FOR THE SEDONA DSP WORKSHOP!

<http://enpub.fulton.asu.edu/ivu/Workshops/DSPE2011/>



36th Annual IEEE Industrial Electronics Conference (IECON 2010)



7-10 November 2010, Glendale, AZ

Call for Participation

Industrial Electronics Conference (IECON) is an IEEE international conference on industrial applications of electronics, control, robotics, signal processing, computational and artificial intelligence, sensors and actuators, instrumentation electronics, computer networks, internet and multimedia technologies. The objectives of the conference are to provide high quality research and professional interactions for the advancement of science, technology, and fellowship. Papers with new research results are encouraged for submission. IECON'10 is being held concurrently with the 4th IEEE International Conference on E-Learning in Industrial Electronics (ICELIE'10) and the Industry Forum. Participation in all three events just requires the IECON'10 registration fee. Industry, research, and academia are cordially invited to participate in the wealth of presentations, tutorials, exhibits, plenary sessions, and social activities for the advancement of science, technology, engineering education, and fellowship. Accepted and presented papers will be published in the respective conference proceedings, and included in the IEEE *Xplore*® online digital library and EI Compendex database. Detailed information about manuscript submission is available at the following website:

<http://iecon2010.njit.edu>

Important Dates for Authors:
Contributed papers: 26 April 2010
Tutorial proposals: 3 May 2010
Special Session proposals: 1 March 2010
Notification of acceptance: 1 July 2010
Final submissions due: 6 September 2010



INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

COMPONENTS, PACKAGING AND
MANUFACTURING TECHNOLOGY SOCIETY
ECTC Electronic Components & RF Program Committee
CPMT RF & Wireless Technical Committee



61st ECTC May 31 – June 3, 2011
Walt Disney World Swan & Dolphin Resort
Lake Buena Vista, Florida USA

The ECTC Electronic Components & RF Program Committee and the CPMT RF & Wireless Technical Committee encourage you to submit an abstract to ECTC 2011 in the areas of passive components & networks, RF & Microwave components & modules, and subsystems. ECTC is the premier Electronic Components and Packaging conference held annually and attended by about 1000 delegates with equal participation from companies and academia. As in the past, Electronic Components, RF & Microwave, and MEMS related papers are solicited for focus sessions during this prestigious conference.

RF, Microwave, Terahertz Components & Modules

Integrated antennas, filters, baluns, tunable devices & switches; high power & high efficiency RF/Microwave power amplifiers – design, technology & high frequency characterization; module integration in semiconductor, organic, & glass substrates – System in Package, System on Chip, Package on Package, & 3D integration; shielding, isolation, nanoscale structures for enhancing performance

RFID

Design & development of miniature interconnects for HF, UHF & WiFi RFIDs; assembly & matching with antennas & passives; universal RFID modules; RFID enabled wireless sensor nodes; power scavengers & nanomaterials for autonomous RFID's; flexible/conformal materials & printing technologies; reliability & environmental issues; metal-mounted RFID assembly & integration; multiband RFIDs; integration of RFIDs & batteries; RFID reader packaging; "rugged" RFID packages for space & extreme environments

RF MEMS & Sensors

RFID, RF MEMS, MEMS, MEMS packaging; MEMS/NEMS-enabled sensors, nanotechnology-based sensors, MEMS-based power scavenging; low-cost "Smart House" & "Smart Skin" sensor integration & packaging

Medical Devices for Monitoring, Imaging, WPAN/WBAN & Biomedical Applications

Design, materials, processing, manufacture, modeling & characterization; UWB & THz imaging & monitoring devices; technology for integrated wireless implantable/wearable electronics, including energy harvesting, ultra-low power electronics & batteries; 3D packages for ultra-miniaturization; biocompatibility, BioMEMS & microfluidic packaging

Flexible & Printed Electronics

Printing electronics technologies up to mmW frequencies; 3D printed RF electronics modules; low cost substrates; flexible RF modules, interconnects & adhesives; integration with wearable/implantable wireless personal networks, smart fabrics; inkjet- & gravure-printed RF components; environmentally-friendly RF substrates, antennas & passives

Discrete and Embedded Electronic Components, Materials, Processing, Reliability, & Manufacturing

Design, materials, processes, & reliability considerations for discrete passive components: resistors, capacitors, inductors, & passive networks, including through silicon vias (TSV), wafer level RDL, nano materials & processes

SUBMISSIONS:

Please submit abstracts using the ECTC web site: www.ectc.net by October 15, 2010. Abstracts must comply with the guidelines outlined at the website. To have your paper considered for inclusion in the "Electronic Components & RF" focused sessions

YOU MUST SELECT

"Electronic Components & RF" committee as your PRIMARY subcommittee preference

when you submit your abstract at the ECTC web site. Again, to have your paper considered, please do the following:

- STEP #1: Submit abstract through the ECTC web site (www.ectc.net) and select **"Electronic Components & RF" as PRIMARY subcommittee preference**
- STEP #2: Email abstract copy and author's email & contact information to:
Craig Gaw at c.a.gaw@ieee.org & Rockwell Hsu at r.hsu@wilinx.com

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INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

WAVES AND DEVICES PHOENIX CHAPTER

<http://ewh.ieee.org/r6/phoenix/wad/>

2010 Calendar



Date	Time	Location	Topic/Title	Speaker	Affiliation	IEEE Society
27-Jan	0-Jan	Agilent, Chandler	Digital Pre-Distortion for high linearity RF Power Amplifiers	Dr. John Wood	Freescale	ED&MIT
3-Feb Jointly Sponsored w/ ASU Center of Nanophotonics	0-Jan	ASU, GWC487	Si Photonics: Towards Lasers on Silicon	Dr. Sangam Chatterjee	Philipps-Universität Marburg, Germany	Photonics Center of Nanophotonics
Thursday Feb. 4	0-Jan	Agilent, Chandler	Both IFA Conversions – What You Need To Know	Mr. Greg Wojak	LPL Financial	General Interest
Friday Feb. 19	0-Jan	ASU Brickyard	Non-Foster Reactances for Electrically Small Antennas, High-Impedance Surfaces, and Engineered Materials	Dr. Jim Aberle	ASU	AP & MIT
Wed March 3 Jointly Sponsored w/ ASU Center of Nanophotonics	0-Jan	ASU, GWC487	Microscopic modeling and experimental results on high-power VECSELS	Prof. Dr. Stephan W. Koch	Philipps-Universität Marburg, Germany	Photonics and ASU Center of Nanophotonics
Wed. March 17		Agilent, Chandler	High Speed Inter-Satellite Laser Communications Systems Design	Dr. Davis Hartman	General Dynamics	Photonics
Wed. March 28 Jointly Sponsored w/ ASU Center of Nanophotonics		ASU GWC480	Vertical External-Cavity Surface-Emitting Semiconductor Lasers for Compact High-Power Visible-IR Sources	Dr. Mahmoud Fallahi	College of Optical Sciences, University of Arizona	Photonics
Friday, Apr. 9		ASU GWC487	State-of-the-Art Time-Domain Measurement and Modeling Techniques for Non-linear Components & Systems	Dr. Christopher Silva	The Aerospace Corp.	MIT
Wed., April 14 Jointly Sponsored w/ ASU Center of Nanophotonics		ASU GWC487	Surface and Strain Driven Morphology in the MBE Growth of Quantum Dots	Dr. Kurt G. Eyink	AHRU/RAPS Wright Patterson AFB, Ohio	Photonics
Friday, April 16 - Postponed	4:00PM	ASU, GWC487	Coupled EM Device/Circuit Modeling Approach for RF/mmwave ICs	Zheng Huang	ASU/Pedaset	MIT
Thursday, April 29		ASU Brickyard 8th Floor	Communications-Electronics and Enabling Mixed Signal Technologies	Dr. Barry Perlman	IEEE / Army	General
Thursday May 13		ASU GWC487	Are You Smarter Than a DARPA PM?	Dr. Robert Reuss	Consultant	General
Thursday, June 24		Agilent, Chandler	A History of Space Communications in the Valley of the Sun	Mr. Robert Anderson	General Dynamics	MIT, AP
Thursday, Aug. 5	0-Jan	Agilent, Chandler	Rough-Metal-Surface Propagation Loss Modeling	Dr. Fleming Braunisch	Intel	MIT
Thursday, Sep. 16	6:00 PM	Agilent, Chandler	From mmWave Measurement to Design: Measurement, De-embedding and Design	Dr. Marcel Tütt	Freescale	ED&MIT
Thursday, Oct. 14	6:00 PM	Agilent, Chandler	Radio Communications Systems on Next Generation Manned Space Vehicle	Mr. William Boger	General Dynamics	MIT, AP
Friday, Nov. 12	3:00 PM	ASU	Wireless Networks for Medical Implant Devices	Dr. Sayle Krae	ASU	ED, MIT, & AP



INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
WAVES AND DEVICES - Phoenix Chapter



Meeting Free & Open to Non-IEEE Members

6:00 PM, Thursday, Sept. 30, 2010

*Agilent Offices, 4330 West Chandler Blvd, Chandler
(East side of Stellar Business Center Office Park)*

From mm-wave measurement to design: Measurement, De-embedding and Design

Dr. Marcel Tutt

Freescale Semiconductor
mtutt@cox.net

Abstract

Millimeter wave (mmW) has long been the domain of III-V devices. However, the excellent f_T and F_{max} now routinely demonstrated by SiGe has enabled this technology to demonstrate excellent circuit performance well into the mmW regime in a variety of circuit applications. Moreover, the availability of SiGe promises higher levels of circuit functionality compared to that seen with III-V technology. Effective utilization of this technology requires knowledge of the necessary experimental techniques and design methodologies. This presentation will cover relevant topics including: relevant signal transmission structures, power and noise measurements, S-parameter measurement and de-embedding and finally design methodologies for mmW circuits.

Biography

Marcel Tutt received his Ph.D. from the University of Michigan in 1994. His research dealt with noise properties of HEMT's and GaAs HBT's. He has worked in the areas of microwaves and millimeterwaves (mmW) for over 20 years. At Texas Instruments he worked on III-V HBT circuit designs for low AM noise and radar applications. When he joined Freescale he developed the modeling process for their III-V HBT's for handset PA applications. Later, he managed Freescale's the III-V device modeling and characterization group. He has supervised the development of on-wafer mmW test systems for the characterization of mmW devices and circuits at Freescale. He has published in the areas of modeling and measurement techniques. Recently, he has become involved in the modeling of high power switching devices for automotive applications..

Date: Thursday, Sept. 30, 2010

Time: 6:00 PM Presentation, Pizza will be served following the Seminar

Location: [Agilent Office, Suite 367, 4330 West Chandler Blvd., Chandler AZ 85226](#)
(In Stellar Business Center on North side of Chandler Blvd west of McClintock Rd.)

For more information, contact: Steve Rockwell (WAD Chapter Chair) (480) 241-8801 steve.rockwell@ieee.org
Chuck Weitzel (Chapter Publicity) (480) 282-0531 c.weitzel@ieee.org

WAD Website: <http://ewh.ieee.org/r6/phoenix/wad/>



Announcing



IEEE Topical Symposium on
Power Amplifiers for Wireless Communications

September 13 & 14, 2010
Tempe, AZ

Power amplifiers are a vital enabling technology for wireless communications. They are evolving rapidly to meet the demands for greater efficiency and linearity when handling complex modulated signals. This meeting provides a forum for discussing innovative work in the area of power amplifiers, covering handset and base-station technologies, voice, video and data, from HF through millimetre-wave.

Invited papers highlighting state-of-the-art developments include:

“RF Wireless Handset Transceivers” Prof. Sayfe Kiaei, *Arizona State University*

“Pulling Power” Prof. Steve Cripps, *Hywave Associates*

“Realizing Doherty Power Amplifier Designs” David Runton, *RFMD*

Technical papers will be presented in the following topics:

- Design techniques for power amplifiers
- Device & IC technology for power amplifiers
- System requirements and transmitter architectures
- Linearization techniques
- Measurement and characterization of power amplifier devices and circuits
- Broadband power amplifiers and matching techniques
- Device and system-level modeling

The symposium will be held at the University Club, Arizona State University, in Tempe.

Conference registration is **\$140 for IEEE Members**, and **\$70 for students**. For details of the conference location, local hotels, how to register, and the Advance Program, please visit the PA Symposium website: <http://pasymposium.ucsd.edu>

For further information, please contact PA Symposium 2010 General Chair:

Paul Draxler pdraxler@qualcomm.com

or the Local Organizer:

John Wood john.wood@freescale.com

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Images courtesy of, Ocean Services; Mondolith Studios www.mondolith.com; Prof. Belcher, Prof. Chiang and Prof. Hammond (MIT)

Emerging Device and Packaging Technologies *Sense, Compute, and Communicate*

Friday, November 19, 2010 7:00 A.M. – 5:00 P.M.

Arizona State University, Tempe, Arizona – ASU Memorial Union (Arizona Room)

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Mike Goryll, ASU

Bill Boger, General Dynamics

Debendra Mallik, Intel

Linda Chow, Intel

Mahesh Shah, Freescale

Call for Papers

The combination of technologies required to address societal grand challenges in areas such as energy, health, and security necessitates the creation of systems that have far-reaching abilities to sense, compute, and communicate. Such systems vary in complexity, from basic home networks to much more sophisticated remote health, security monitoring, and satellite systems, and can involve fields as diverse as biochemical sensing, ad-hoc networks, low-power/high-performance computing, and planetary surface science. This year's one-day workshop will focus on the 'sense, compute, and communicate' topic and will pull together experts from industry, academia, research labs, and consortia to share their vision of technical challenges and opportunities in these areas. A poster session will be featured on the broader workshop topic of emerging device and packaging technologies and select vendors will exhibit products and services related to all aspects of the supply chain for design and manufacturing.

Invited Speaker Topics

- | | |
|---|--------------------------------------|
| Portable Electronics | Space Systems |
| • Urban/Participatory Sensing | • Planetary Surface Studies |
| • MEMS/BioMEMS | • Optical Crosslinks |
| • Low-Power Compute/Communicate | • Software-Programmable Space Radios |
| • Advanced Portable Electronics Packaging | • Low-Power Compute/Communicate |

Poster Session

Abstracts are invited for consideration to the poster session in emerging device and packaging technologies (and not limited to the topics sense, compute, or communicate).

Poster Abstract Submissions: Two pages (topic, summary of significant results and conclusions – WORD or PDF files only). Abstract must include author names, affiliations, addresses, and e-mail address of lead author.

Submission Deadline:	September 15, 2010
Submitting Address:	melmiller@ieee.org
Acceptance Notification:	October 1, 2010
Final Presentation Due:	November 5, 2010

Sponsorships and Vendor Displays: This is a great opportunity to promote your company or product. For more information, contact Vasu Atfuri vpa@uri@ieee.org, Steve Rockwell steve.rockwell@ieee.org, or Vivek Gupta vivek.gupta@freescale.com

Workshop Registration: On-line registration will open in August at www.acteva.com/ieee/phxsecworkshop2010



Radio Wireless Week
16 - 20 JANUARY 2011, PHOENIX, AZ, USA

RWW  **IEEE**    **VTS**

<http://www.radiowirelessweek.org/>

<http://www.radiowirelessweek.org/>



RWW

  

 

PLATINUM SPONSOR

RFMD 

September Meeting Announcement for the Phoenix Chapter of the IEEE EMC Society



Date: Tuesday, September 21st, 2010

Place: Garcia's Mexican Restaurant at Embassy Suites Hotel

Address: 4400 South Rural Road, Tempe, Arizona

Just South of U.S. 60 on West side of Rural Rd.

Time: 5:30PM Social, 6PM Dinner (order off the menu), 7PM Meeting

Title: Platform Interference in Wireless Systems

Speaker: Kevin Slattery, Intel, Manager for Advanced Signaling and Interference Technologies

Abstract: With the advent of mobile computing, wireless communication has become an integral part of the compute platform. Who would now consider buying a laptop without wireless? At the same time, what were once simple communication devices such as cell phones are now adding functions which require subsystems ordinarily associated with compute devices. So what's the big deal? The problem is these devices were never intended to coexist. Communications devices have not been designed with high speed digital logic in mind. High Speed digital logic has never included communications as a design vector. The end result is that these devices don't work well together and much shoehorning is currently undertaken to make them cohabit in the same device. That shoehorning generally incurs costs in terms of product delays and additional mitigation solutions. It is a sobering thought that 3dB of noise can reduce the performance of your communications system by 50%. It is even more sobering that 20 or even 30dB of noise is common on some devices. This talk has two main intentions including an education in what RF interference is and as a reference source for identifying noise related issues and mitigating them in your current or future design.

Biography: Mr. Slattery is presently with Intel in Oregon and is the manager for the Advanced Signaling and Interference Technologies team in the Corporate Technology Group. He has been working in the field of EMI/EMC for 18 years and has developed measurement techniques and analytical approaches for the evaluation of high speed processors, chipsets, LAN, and display electronics. Mr. Slattery has been one of the pioneers in developing near field measurement techniques for the scanning of integrated circuits providing some of the first surface field distributions of high spatial resolution. He was also one of the pioneers in the use of broadband radiated emissions techniques with VLSI GHz TEM cells designed specifically for measuring integrated circuits. Both the near field scanning and GTEM measurements have become IEC standards. In addition, he works on RF interference mitigation, EMI/EMC and high speed clocking issues. He has over 35 publications in the fields of EMC and RFI. Previously, he was with DaimlerChrysler EMC in Huntsville, Alabama where he built an advanced EMI/EMC research capability. He has also worked in high energy physics at the Stanford Linear Accelerator Center where he was responsible for particle beam timing systems in storage rings and in beam transport systems in the linear accelerator.

Reservations: To help us get an accurate headcount, please send an email to Harry Gaul (harry.gaul@ieee.org). There is no charge for meetings, but you pay for your own meal and drinks. Since we order off the menu, we do not need an exact number, so if you decide at the last minute, please come anyway. You don't need to be an IEEE or EMC Society member to attend -- all are welcome.



Power & Energy Society Announcements



- **GOLD Chair Needed**

The Phoenix PES Chapter is looking for a someone for our GOLD (Graduate of the Last Decade) Chair position. This volunteer would reach out to the recent grads (within the last ten years) at regional companies and facilitate their participation in the chapter, whether it's our regular technical luncheons or our golf tournament or conferences. The PES Gold Chair also typically coordinates with the college IEEE Chapters to facilitate student participation. If you are interested in helping connect recent grads and students with the Power Engineering community, please email Phoenix Chapter Chair Bruce Ladewig at bruceladewig@ieee.org.

- **September 2010 Technical Luncheon**

Date: September 16, 2010
Location: Radisson Phoenix Airport North (427 NORTH 44TH STREET)
Speaker: Wanda Reder (IEEE PES Distinguished Lecturer)
Topic: Practical Lessons from Wind Farm Collector Systems & Interconnections

Please register for this technical luncheon at the Phoenix PES Chapter's Website: <http://ewh.ieee.org/soc/pes/phoenix/>

- **53rd Annual Golf Tournament**

Date: September 25, 2010
Location: Antelope Hills (Prescott)

Our successful annual golf tournament is just around the corner! Last minute teams or participants should contact michelle@arizonasunsales.com for details. Please attend, enjoy the beautiful Prescott weather, network with people from regional utilities, consultants, and vendors while playing a relaxing round and then attend the dinner and giveaway afterwards.



2011 IEEE PES Power Systems Conference & Exhibition

<http://www.pscexpo.com/>



2011 IEEE PES Power Systems Conference & Exposition

Focused on Power Systems Operations, Planning, Policy, Markets, Analysis, and Control

THE NEXT GENERATION GRID...PUTTING IT ALL TOGETHER

**March 20-23, 2011
Phoenix, Arizona, USA**



A comprehensive program that offers attendees in-depth information on the following topics:

- Smart sensing, communication and control in energy systems
- Smart grid for distributed energy resources
- Smart grid for cyber and physical security systems
- Emerging software needs for the restructured grid
- System-wide events and analysis methods
- Intelligent monitoring and outage management
- Integrating wind and solar energy into the grid
- Substation and distribution automation
- Internet tools for better understanding of power systems
- Dynamic performance and control of power systems
- Market interactions during system-wide events
- Asset management

and much more

The PSCE Audience-Who Should Attend: A program that has been designed for an international group of practicing power systems engineers, operators, planners, policy makers, economists, and others with interest in advancing state-of-the-art power systems. The conference will include a plenary session as well as tutorials on the most up-to-date topics on power systems. Timely and important paper, panel and poster sessions will be presented during the three-day conference.

The Exposition Offers Attendees a Look at State-of-the-Art Systems Technology: Attendees will have the opportunity to interact with the manufacturers and service providers who can provide the information that is essential to the multi-faceted field power and energy. Software and hardware systems and consulting services will be on display from leading companies in the field.

The paper submissions will open in August 2010.



Watch for program updates at: www.pscexpo.com



Phoenix Section Life Member Affinity Group

The IEEE Phoenix Section Life Member (LM) Affinity Group was organized to enable IEEE Life Members to retain active IEEE associations, contribute to the social good in their communities, advance IEEE's professional interests and enjoy each other's company.

An IEEE member automatically becomes an IEEE "Life Member" status when at least 65 years of age and the sum of your current age and years of membership is 100. For more details use the link

http://www.ieee.org/web/volunteers/mga/home/life_members_committee/index.html

Activities

Annual technical meetings scheduled in February, May, October, and December. Technical meeting topics and suggested speakers are encouraged. Contact any Officer.

Future Technical Meetings

- October 5, 2010 SRP PERA CLUB, 1 E. Continental Dr, Tempe AZ
- December 7, 2010 SRP PERA CLUB

Officers

Chair	C Bruce Johnson	cbj@johnsonscientificgroup.com
Vice Chair	Michel Ebertin	Michel@ebertin.net
Secretary	A. Barry Cummings	Barry.Cummings@srpnet.com
Treasurer	Leslie Daviet II	lesdaviatii@cs.com
Program Chair	Ronald L. Sprague, P.E.	rlsprague@cox.net
Past Chair	Professor George Karady	karady@asu.edu



Phoenix Chapter of IEEE Computer Society



September, 2010:

- Our Chapter typically takes the summer off, so we did not have a regular meeting after our last one in May but we did have an officer's meeting on August 18th to plan for the Fall.
- We also discussed the transition of the Chair position to Jerry Crow who will be taking over for the rest of 2010 from Jon Candelaria who is moving out of state.
- Our next annual elections are in early November when we elect the officers who will be taking over the first of January 2011.

Future Events:

- October 6, 2010 – Chapter Meeting @ DeVry University (Phoenix); Speaker: Jerry Crow; '**Cryptography, Part 1**'
- November 3, 2010 – Chapter Meeting @ DeVry University (Phoenix); **Annual Chapter elections**; Speaker: Jerry Crow; '**Cryptography, Part 2**'
- December 1, 2010 - Chapter Meeting; Technical Speaker/location: TBD (Apple iPad for businesses workshop; Linux or Android workshop; software IP tutorial?)
- Spring 2011 – ½-day workshop; topic: TBD (programming for cloud computing?)

Please contact Jerry Crow (jerry8128@gmail.com), Audrey Skidmore (askidmore@computer.org), or Diane Smith (diane@web-oasis.com) to suggest topics and/or speakers for any of our upcoming monthly meetings.

Please note too that our annual elections are coming up. **If you are interested in learning more about any of our Chapter officer or volunteer positions, please contact the current officers listed above as soon as possible.**

For information about our Chapter, meetings past and future, etc., go to:
<http://ewh.ieee.org/r6/phoenix/compsociety/>



IEEE Phoenix Area Consultants Network



Our current officers are:

President	Ronald L. Sprague, P.E.	r.sprague@ieee.org
Vice President	C. Bruce Johnson	cbj@johnsonscientific.com
Treasurer	Bill Morgan	bill.morgan@cox.net
Secretary	Ed Mischen	ed.mischen@cox.net
Webmaster	Mike Pyska	m.pyska@ieee.org
Advisor editor	Ronald Sprague	r.sprague@ieee.org
Program Chairman	Robert Petro	Robert.petro@systemdatasolutions.com
Member at Large	Land Garrett, P.E.	lanegarret@aol.com
Member at Large	Ed Bawolek	bawolek@ieee.org

We have established a tentative schedule of programs for the next year, so we can all plan for future attendance.

Our meetings are held on the second Thursday of the month, unless otherwise indicated.

We invite any of the IEEE Phoenix Section members and student members to attend our meetings, and we would like some inputs on program topics. Some of the topics we are considering for future meetings are:

SCORE assistance for Small Business Startups

The State of Arizona Mechanic's Lien Laws and their application to consultants

Engineering Registration requirements for offering Professional Engineering services

We will be happy to add any new topics, if they are of interest to the Phoenix Section Membership.



IEEE TISP - Engineers In The Classroom

TISP/EIC, August 2010

This month four members of our group were interviewed by a reporter from the AZ Republic. This had been arranged by David Leeper's daughter, Sara, who lives in Los Angeles and works in public relations and publicity. Dave is a very active member of our group and also produces the short videos of our lesson plan activities. The resultant article appeared in the Community Sections for Gilbert, Mesa, Tempe, Chandler and Phoenix. It gave us great publicity and we have already received six inquiries from retirees interested in joining our group, as well as from a school teacher wanting us to work with her science classes. The article follows:

8 GILBERT NEWS Z12 WEEKEND • AUGUST 7, 2010

Engineers help in science classrooms

By Hayley Ringle
THE REPUBLIC | AZREPUBLIC.COM

A group of mostly retired scientists and engineers are volunteering their time to visit classrooms and teach fun lessons on science and engineering with the goal of inspiring students to become interested in those careers.

The Engineers in the Classroom volunteers, a sub-program of the Teacher in Service Program, are run by the Phoenix section of the Institute of Electrical and Electronics Engineers. Since 2008, the volunteers have taught Newton's laws, Archimedes' principle and Bernoulli's principle by helping kids build sailboats and test them in inflatable pools.

They also teach students about simple machines and mechanical advantage while kids make their own water wheels. Building and racing toy solar cars comes after lessons of electric circuits, batteries and solar cells.

The volunteers visit the classroom for three days, with 45-minute lessons, presentations, project building and experimentation. Although the group started out teaching third-graders to sophomores, they are now focusing on sixth to eighth grades.

"We found if you don't get them hooked before high school, their interest may never turn into a career," their interest may never turn into a career, said David Leeper, 63, a retired electrical engineer from Scottsdale. "We're trying to plant that seed."

Volunteers wanted

Engineers in the Classroom, a group of mostly retired scientists and engineers who teach lesson plans on science and engineering to sixth- to eighth-graders, are looking for volunteers, especially college students willing to help out during the day. If interested, e-mail John Purchase at jpurchase@ecos.net. The Institute of Electrical and Electronics Engineers has a so set up a website, www.eic.org, with more than 20 project-based science lesson plans available for teachers to download for free.

The volunteers are scheduled to teach in 88 classrooms in nine schools around the Valley.

Lesson plans under development include teaching Newton's laws, propulsion and trajectories using bottle rockets, and tension, compression and cable suspension with cross bridges.

Two to four volunteers work with the teacher to teach the project-based lessons.

The materials and volunteers, who now number 15, are available at no cost to the schools. Materials, about \$30,000 worth, are paid for through the Institute of Electrical and Electronics Engineers.

The students choose their own building materials, work in teams and experiment until their project works.

"It's not an arts and crafts project," said Eli Kawam, 58, an engineering consultant from Tempe. "We're helping students transfer what is learned in the classroom to the world beyond. Hey, that should be our motto."

We also adopted a new motto for our activity that accurately sums up what we are about: "Helping students transfer what is learned in the classroom to the world beyond." This now appears on all our presentations and other documentation. It was actually taken from a commentary about our activity emailed to John Purchase by one of our most enthusiastic teachers, Dianna Bonney at Orangewood Middle School. Eli Kawam suggested we use this as our motto during the above interview. In late July John Purchase and Dave Leeper helped the Tempe City Kid Zone program put on our "Working With Watermills" lesson at their summer school. An ASU civil engineering student, Michaela Doherty, runs a very popular "Engineering With Ms. Michaela" activity for Kid Zone, covering grades 3 thru' 8. "Watermills" was run as part of that activity. Kid Zone did the lecture (using a cut down version of our presentation) and procured all the consumable materials; EIC loaned them

our capital equipment, ran the demos in parallel with the lecture, and helped supervise the construction project (building water wheels). It was a very sharp group of kids! And one pair set the record for the weight of steel washers their wheel lifted: 4.2 kg! Here are a few photos:

Ms. Michaela lecturing



These guys understood mechanical advantage!



Testing their design



The whole class with their wheels



We will again be helping Kid Zone in September, this time with "Sail Away" in their after school program. We are also busy running a recruitment campaign for new volunteer retired engineers and have got 8 more committed ones so far, with four more potential ones still to decide. And we are working out the school support plan for the new school year, and the associated budget. Both will be presented to the next ExCom on September 6th.



Phoenix Section – 2010 Region 6 Outstanding Section Award Winner!

Dear Section Members:

We are pleased to announce that the Phoenix Section received the 2010 Region 6 Outstanding Section Award. There are 35 Sections in Region 6 of the IEEE (Western United States). A corresponding awards plaque will be received at the Region 6 OpCom Awards Luncheon in Salt Lake City, Utah, on September 25, 2010. Thanks a lot to all volunteers that contributed to this success and for a job well done!

Dr. Vasudeva Atluri
Awards Chair, Phoenix Section

Dr. Henning Braunisch
Chair, Phoenix Section



Become an IEEE Senior Member

If you have 10 years of experience in electrical engineering (including any time in graduate school) you may qualify for elevation to IEEE Senior Member!

Apply on-line at the following link:

http://www.ieee.org/membership_services/membership/senior/senior_application.html

Need help with reference letters or a nomination? Contact any Section officer (see page 1 for contact information).



Faculty Opening at Embry-Riddle

Computer Engineering faculty opening at Embry-Riddle, Prescott. For more information, search available positions at Prescott at www.erau.edu/jobs or contact Dr. Ed Post at postj@erau.edu.



Phoenix Section 2011 Executive Committee Officer Candidates

Dear Section Members:

The membership is invited to consider the following candidates for elected Section officer positions in 2011:

Chair : Jim Hudson

Vice Chair: Ralph Hogan

Secretary : Charles Weitzel

Treasurer : Russ Kinner

Voting will be conducted by secret ballot during the November 2nd Section Executive Committee meeting. Please see page 23 for time and location details.

Please feel free to contact me directly with any questions.

Regards,

Bruce Ladewig – Chair, Nominating Committee
bruceladewig@ieee.org



Upcoming IEEE Conferences in Phoenix

The ***IEEE Industrial Electronics Society (IES)*** of the IEEE is holding **IECON 2010 - 36th Annual Conference of IEEE Industrial Electronics** 7-10 November 2010 in Glendale, AZ. For more information:

<http://iecon2010.njit.edu/>

The ***IEEE Microwave Theory and Techniques Society*** will sponsor the conference entitled **2011 IEEE Radio and Wireless Symposium (RWS)**. This conference will be held in Glendale, AZ on January 16-20, 2011.

For further information, please contact,
George E. Ponchak, NASA Glenn Research Center
21000 Brookpark Rd., MS 54/5
Cleveland, OH 44135
george.ponchak@ieee.org

Both of the above Conferences are being held at the Renaissance Glendale Hotel, Glendale, AZ. The hotel is adjacent to the Univ. of Phoenix Stadium and Jobing.com Arena at Westgate.

The ***IEEE Instrumentation and Measurement Society*** will sponsor the conference entitled **2010 IEEE International Workshop on Haptic Audio Visual Environments and Games (HAVE 2010)**. This conference will be held in Phoenix, AZ on October 16 - 17, 2010.

For further information, please contact,
Chris Dyer
1115 Westport Dr
Ste. D-2
Manhattan, KS 66502
+1 785 783 5520
cdyer@conferencecatalysts.com
<http://have.ieee-ims.org/>

or Conference Business Services Dept., at IEEE Operations Center at +1 732 562 3878.
(Ed. Note: the link above has not yet been updated with the 2010 information as of the date of publication, February, 2010)

The ***IEEE Power & Energy Society*** will sponsor the conference entitled **2011 Power Systems Conference & Exhibition (PSCE)**. This conference will be held in Phoenix, AZ on March 20-23, 2011. For further information please click on the following link:

<http://www.psceexpo.com/>

Phoenix Section Executive Committee Meeting

Venue: Phoenix Airport Hilton
2435 S 47th St, Phoenix, AZ, 85034 ([map](#))
Tel.: 480-804-6017

More Info: Meetings are held on the first Tuesday of the month, 6–8 PM.
- Except for July & August

All interested IEEE members are welcome to attend.

Contact: Dr. Henning Braunisch, Phoenix Section Chair
braunisch@ieee.org

IEEE Phoenix - Calendar of Events

You may access the IEEE Phoenix Section Calendar of Events at:

<http://ewh.ieee.org/r6/phoenix/Calendar.htm>

For inputs and updates to the Calendar, please contact the IEEE Phoenix Section Conferences Chair, Russ Kinner at 602-997-2353 or e-mail: r.kinner@ieee.org

Phoenix Section LinkedIn Group

If you are interested in professional networking and shared Section related updates & discussions join the new [IEEE Phoenix Section Group on LinkedIn](#). Signing up only takes minutes and is free. A job board is available as well.