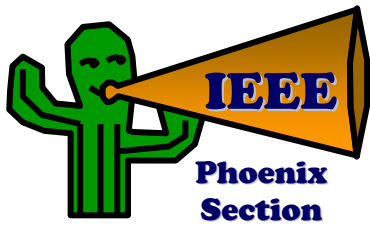


# The Valley Megaphone

Newsletter of the  
**Institute of Electrical and  
Electronics Engineers, Inc.,  
Phoenix Section**  
August 2010,  
Volume XXIV, Number 8



## Executive Committee - 2010

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

## Chapters

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### Life Members

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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.

Nick Leonardi  
480-720-1435 Cell  
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Student Activities Chair

### **Student Branches**

#### **ASU Main, Engineering**

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#### **ASU Main, Computer Society**

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#### **ASU Polytechnic**

Chair: Justin Burrell  
[justin.burrell@asu.edu](mailto:justin.burrell@asu.edu)  
Advisor: TBD

#### **DeVry, Phoenix**

Chair: TBD  
Advisor: Diane Smith  
[dsmith2@devry.edu](mailto:dsmith2@devry.edu)

#### **DeVry, Computer Society**

Chair: TBD  
Advisor: Diane Smith  
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#### **NAU, Engineering**

Chair: Kenji R. Yamamoto  
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Advisor: Niranjana Venkatraman  
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#### **Embry-Riddle, Prescott**

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Advisor: John E. Post  
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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](mailto: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,

# ETAP 101 Training Design Analysis & Operation of Power Systems



**Join us August 23 for ETAP 101 Training**

ETAP 101 training is a practical one-day session to learn about the latest features and capabilities of ETAP power engineering software. It is open to anyone interested in learning about state-of-the-art tools for analysis, design, and operation of electrical systems. *This is not a sales presentation.*

- ETAP Overview
- AC System Modeling
- Load Flow Analysis
- Short Circuit Analysis
- Arc Flash / Hazard Analysis
- ETAP Real-Time - Power Management System
- Device Coordination / Selectivity
- Plus, get a sneak preview of the next release of ETAP

**WHERE**  
Marriott Phoenix Mesa  
200 North Centennial Way  
Mesa, AZ 85201

**WHEN**  
Monday, August 23  
9:00am - 4:00 pm (sign in begins 8:30am)  
Lunch provided

Registration is required: <http://tiny.cc/ETAPphx>  
Questions: [training@etap.com](mailto:training@etap.com)

ETAP – Enterprise Software Solution for Power Systems  
[etap.com](http://etap.com)

Registration: <http://tiny.cc/ETAPphx>

Questions: [training@etap.com](mailto:training@etap.com)

[www.etap.com](http://www.etap.com)



## MGA Awards and Recognition Program

### Call for Nominations - Recognizing Outstanding IEEE Volunteers and Contributors

You can help recognize the efforts of outstanding volunteers by nominating someone for one of the prestigious [Member and Geographic Activities \(MGA\) Awards](#). Each prestigious award has a unique mission and criteria and offers the opportunity to honor distinguished colleagues, inspiring teachers, and corporate leaders, for their member engagement initiatives.

If you know someone who has made substantial contributions to the [MGA Mission](#) (Inspire, Enable, Empower and Engage Members of IEEE) at the local level, through innovative projects, exemplary leadership, service, or by fulfilling the goals as related to transnational activities, consider nominating them for one of the following awards:

- [MGA Achievement Award](#)
- [MGA Innovation Award](#)
- [MGA Leadership Award](#)
- [MGA Larry K. Wilson Transnational Award](#)
- [MGA GOLD \(Graduates of the Last Decade\) Achievement Award](#)

Please complete the [Online Award Nomination Form](#). The deadline for nominations is 15 October 2010.

In addition to these individual MGA Awards, MGA also presents [Friend of IEEE Member and Geographic Activities Awards](#), which specifically recognize support provided to IEEE and its members, in support of its goals, by firms, divisions of firms, or individuals. Nominators can submit Individuals or Organizations for Friend Awards, and awards can be earned at the Supporting or Sustaining level. Please complete the [Online Award Nomination Form](#). There is no deadline for these awards, which are presented throughout the year.

Please [e-mail MGA Awards](#) with any questions about the MGA Awards and Recognition Program.



# IEEE Signal Processing Society 14<sup>th</sup> DSP & 6<sup>th</sup> 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.

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

For more information, please click on the following link:

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



# **36<sup>th</sup> 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

**Waves and Devices****Phoenix Chapter**<http://ewh.ieee.org/r6/phoenix/wad/>**2010 Calendar**

<b>2010 Waves &amp; Devices Scheduled Technical Meetings</b>				
<b>Date</b>	<b>Location</b>	<b>Topic / Title</b>	<b>Speaker</b>	<b>Affiliation</b>
27-Jan-10	Agilent, Chandler	Digital Pre-Distortion for high linearity RF Power Amplifiers	Dr. John Wood	Freescale
3-Feb Jointly Sponsored w/ ASU Center of Nanophotonics	ASU, GWC-487	Si Photonics: Towards Lasers on Silicon	Dr. Sangam Chatterjee	Philipps-Universität Marburg Marburg, Germany
Thursday Feb. 4	Agilent, Chandler	Roth IRA Conversions – What You Need To Know	Mr. Greg Wojak	LPL Financial
Friday Feb. 19	ASU Brickyard	Non-Foster Reactances for Electrically-Small Antennas, High-Impedance Surfaces, and Engineered Materials	Dr. Jim Aberle	ASU
Wed March 3 Jointly Sponsored w/ ASU Center of Nanophotonics	ASU, GWC-487	Microscopic modelling and experimental results on high-power VECSELS	Prof. Dr. Stephan W. Koch	Philipps-Universität Marburg Marburg, Germany
Wed. March 17	Agilent, Chandler	High Speed Inter-Satellite Laser Communications Systems Design	Dr. Davis Hartman	General Dynamics
Wed. March 26 Jointly Sponsored w/ ASU Center of Nanophotonics	ASU GWC-490	Vertical External-Cavity Surface-Emitting Semiconductor Lasers for Compact High-Power Visible-IR Sources	Dr. Mahmoud Fallahi	College of Optical Sciences University of Arizona
Friday, Apr. 9	ASU GWC-487	State-of-the-Art Time-Domain Measurement and Modeling Techniques for Non-linear Components & Systems	Dr. Christopher Silva	The Aerospace Corp.
Wed., April 14 Jointly Sponsored w/ ASU Center of Nanophotonics	ASU GWC-487	Surface and Strain Driven Morphology in the MBE Growth of Quantum Dots	Dr. Kurt G. Eyink	AFRL/RXPS Wright Patterson AFB, Ohio
Friday, April 16 - Postponed	ASU, GWC-487	Coupled EM/Device/Circuit Modeling Approach for RF/mm-wave IC's	Zheng Huang	ASU / Pedasoft
Thursday, April 29	ASU Brickyard 6th Floor	Communications-Electronics and Enabling Mixed Signal Technologies	Dr. Barry Perlman	IEEE / Army
Thursday May 13	ASU GWC-487	Are You Smarter Than a DARPA PM?	Dr. Robert Reuss	Consultant
Thursday, June 24	Agilent, Chandler	A History of Space Communications in the Valley of the Sun	Mr. Robert Anderson	General Dynamics
Thursday, Aug. 5	Agilent, Chandler	Rough-Metal-Surface Propagation Loss Modeling	Dr. Henning Braunsch	Intel
Thursday, Sep. 30 (changed date)	Agilent, Chandler	From mm-Wave Measurement to Design: Measurement, De-embedding and Design	Dr. Marcel Tutt	Freescale
Thursday, Oct. 14	Agilent, Chandler	Radio Communications Systems on Next Generation Manned Space Vehicle	Mr. William Boger	General Dynamics
Friday, Nov. 12	ASU	Wireless Networks for Medical Implant Devices	Dr. Sayfe Kiaei	ASU

IEEE Phoenix Valley Megaphone August 2010  
INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS  
**WAVES AND DEVICES - Phoenix Chapter**



*Meeting Free & Open to Non-IEEE Members*

**6:00 PM, Thursday, August 5th, 2010**

**Agilent Offices, 4330 West Chandler Blvd, Chandler**



# Rough-Metal-Surface Propagation Loss Modeling

**Dr. Henning Braunisch**

Intel Corporation

## Abstract

We discuss prediction of the surface-roughness augmented propagation loss encountered on interconnect structures in microwave components such as high-speed packages and boards, based on a small-perturbation method (SPM). In this methodology, rough surfaces are characterized by their power spectral density (PSD) that can be obtained from surface height profiles by the application of Fourier methods and averaging. Piecewise uniformly rough interconnect structures can be treated by localization of the SPM and assigning corresponding effective conductivities in an electromagnetic field solver. Quantitative surface imaging techniques for acquiring surface height maps include optical interferometry, scanning probe microscopy and scanning electron microscopy. Reactive ion etching is used to expose copper surfaces on post-lamination samples with organic dielectrics. For demonstration of the SPM through correlation with measurements, de-embedding of the transmission line loss is performed using a two-line method. Atomic force microscopy is employed to image the rough ground plane of the microstrip interconnect and obtain its PSD. Good agreement between measured and predicted loss is shown up to 20 GHz.

## Biography



Henning Braunisch received M.S. degrees in electrical engineering from Michigan State University, East Lansing, in 1995, and the University of Hanover, Germany, in 1996, and the Ph.D. degree in electrical engineering and computer science from the Massachusetts Institute of Technology (MIT), Cambridge, in 2001. He has since been with Intel Corporation, Components Research, Chandler, Arizona. His research interests and expertise are in advanced microelectronic packaging, applied electromagnetics, physics-based signal processing, and forward and inverse modeling. Dr. Braunisch is a Senior Member of the IEEE and a Member of the Institute of Physics (MInstP), London, UK. Dr. Braunisch holds 22 US patents and has co-authored 70 technical papers that were published in peer-reviewed journals or presented at international conferences. He was the lead author of the ECTC 2006 Best Poster Paper and the ECTC 2007 Best Paper and was a recipient of the 2008 SRC GRC Mahboob Khan Outstanding Mentor Award. Dr. Braunisch is currently Chair of the IEEE Phoenix Section.

**Date:** Thursday, August 5th, 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:

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**Phoenix Section IEEE Website Calendar:**

[http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/2329](http://meetings.vtools.ieee.org/meeting_view/list_meeting/2329)

**Waves and Devices Chapter Website:**

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





# Radio Wireless Week

16 - 20 JANUARY 2011, PHOENIX, AZ, USA



IEEE



IEEE COMMUNICATIONS SOCIETY

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

## General Chair

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NASA Glenn Research Center

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Hsiao-Hwa Chen, *Natl. Cheng Kung Univ.*

## Finance Co-Chair

Jan-Erik Mueller, *Infibeam*

Finance Co-Chair, Webmaster

Takao Inoue, *National Instruments*

## Topical Conferences

### RF Power Amplifiers

Marc Franco, *RFMD*

Allen Katz, *The College of NJ*

### Biomedical Wireless

Techn. Networks & Sensing

Rizwan Bashirullah, *Univ. of Florida*

Mohamed Mahfouz, *Univ. of Tennessee*

Sensors and Sensor Networks

Dietmar Kissinger,

*Univ. of Erlangen-Nuremberg*

Massood Zandi Atashbar,

*Western Michigan Univ.*

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Special Consultant and Advisor

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## Student Paper Competition

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*Univ. of Texas at Dallas*

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*Microwave Magazine Special Issue*

Editor, Debabani Choudhury, *IEEE*

## Conference Management

Jennifer Mora, *Ry Events LLC*

## RWS Call For Papers

The 2011 IEEE Radio and Wireless Symposium (RWS2011) will be held the week of January 16, 2011 in Phoenix, AZ as part of the Radio Wireless Week (RWW2011). This year, RWS2011 and SiRF2011 will hold more joint sessions to highlight the indispensable use of silicon in modern wireless systems. In addition, RWW2011 will include topical conferences on RF Power Amplifiers, Biomedical Wireless Technologies, Networks, and Sensing Systems, and Wireless Sensors and Sensor Networks. Each of these highlighted topics will be organized separately, with their own call for papers found at <http://www.radiowirelessweek.org/>. In addition to these topics, RWS invites papers on all areas of radio and wireless systems, including but not limited to:

1. **Passive Antennas**
  - Dipoles, Integrated and Patch Antennas
2. **Propagation Channel Modeling and Utilization**
  - Propagation & Channel Characterization & Modeling
  - Fading Countermeasures
  - Spectrum Sensing Technologies
3. **Transceivers and Front-end Technologies, SOC and SiP**
  - Receiver and Transceiver Components
  - Active Sub-systems
  - Low-Power/Low Noise RF/Analog IC and System-On-Chip Solutions
4. **MIMO, Signal Processing, and Smart Antennas**
  - Electrically Small and Smart Antennas
  - MIMO and Space-Time Processing
  - Relaying Technology
5. **High-speed and Broadband Wireless Technologies**
  - 802.16/LMDS Broadband Fixed Wireless Techniques and Last-Mile Access Techniques
  - Powerline Communication Technologies
  - 3G/4G Wireless Communication Services
  - Ultra-Wideband (UWB) Systems
6. **Software Defined Radios and Cognitive Radios**
7. **Wireless System Architecture and Modeling**
  - Ad Hoc Network Techniques for Anytime, Anywhere Internetworking
  - Wireless LAN Systems
  - Wireless Mesh and Broadband Local/Personal Area Networks
  - Wireless Security and RFID Technologies
8. **Emerging Wireless Technologies and Applications**
  - Heterogeneous Mobile Networks and Mobile Network Convergence
  - Multicasting and Broadcasting
  - Satellite Network Systems
  - Ultra-High Rate Communications Links
9. **Digital Signal Processing as Applied to Wireless**
  - Digital/Analog Adaptive/Collaborative Signal Processing
  - Methods for Maintaining Signal Integrity
10. **Passive Components & Packaging**
  - Discrete, Embedded and Distributed Passive components
  - Filters, Couplers and Signal Separation Devices
  - Discrete and Highly Integrated Packaging

Papers describing technologies that enable Radio and Wireless Systems are welcome including:

- System Level Design, Modeling, and Simulation
- Multilayer integration of RF, energy and sensing components
- Signal Generation and Modulation Circuits
- Microwave Energy Transmission



Paper submission instructions will be found at <http://www.radiowirelessweek.org/>. Submissions should be properly formatted with all figures included within a maximum of four pages. Only electronic submissions in pdf format will be accepted for review. Authors should indicate their preference for oral or poster presentation. All submissions must be received by July 30, 2010. All accepted papers will be published in a digest and be included in IEEE Xplore. Submissions will be evaluated based on novelty, significance of the work, technical content, interest to the audience, and presentation.



## 2011 IEEE Topical Conference on Wireless Sensors and Sensor Networks

RF and millimeter-wave sensors and wireless sensor networks are critical system components for manufacturing, monitoring, safety as well as positioning and tracking applications. WISNet2011 will be a two day topical conference focused in the latest developments in this area. Papers featuring innovative work are solicited in (but not limited to) the following areas of wireless sensors and sensor systems:

- » Sensors for communications, radars, positioning and imaging applications
- » Integrated RF and mm-Wave Sensor Frontends Sensors or building blocks
- » Indoor & Outdoor Local Positioning Technologies
- » High-Precision Ultra-Wideband Techniques
- » Wireless Sensors Networks and Smart Sensor Systems
- » RFID Technologies and Applications
- » Surface Acoustic Wave Technologies and Applications
- » RF Tracking and Positioning Devices



## 2011 IEEE Topical Conference on Biomedical Wireless Technologies, Networks & Sensing Systems

The wireless revolution has begun to infiltrate the medical community with patient health monitoring, telesurgery, mobile wireless biosensor systems, and wireless tracking of patients and assets becoming a reality. The rapid evolution of wireless technologies coupled with powerful advances in adjacent fields such as biosensor design, low power battery operated systems, and diagnosing and reporting for intelligent information management has opened up a plethora of new applications for wireless systems in medicine. BioWireless2011 will be a two day topical conference focused in the latest developments in this area. Papers featuring innovative work are solicited in (but not limited to) the following areas of Biomedical Wireless Technologies, Networks, & Sensing Systems:

- » Miniaturization and integration of wireless technologies and micro sensors for medical applications
- » Personal area networks and body area sensor networks in hospital environments
- » High data rate wireless protocols & processing for biosignals
- » Wireless positioning technologies in medicine
- » Microwave systems for imaging, diagnostics & therapeutics
- » New advances in understanding microwave interaction with biological tissues
- » Biomedical devices for remote monitoring
- » Microwave systems for biological applications
- » Coexistence and modeling of wireless technologies in clinical environments
- » Health monitoring, energy scavenging & biosensor E-textiles



## 2011 IEEE Topical Conference on RF/microwave Power Amplifiers

Power amplifiers are often the most critical component of RF/microwave communications systems and consequently the focus of intense research to achieve increased linearity and power efficiency. New forms of power amplification are being developed to meet the needs of the wireless communication equipment industry and the world's demand for greater information transmission. PAWR2011 will be a two day topical conference on RF/microwave Power Amplifiers. Papers featuring innovative work are solicited in (but not limited to) the following areas of RF/microwave power amplifier technology:

- » High Power/Wideband Active Devices
- » Modeling and Characterization
- » Advanced Circuit Design and Topologies
- » Linearization and Efficiency Enhancement Techniques
- » Applications and Novel Architectures
- » Packaging and Integration Technology

Papers submission instructions will be available through respective topical conference websites found at <http://www.radiowirelessweek.org/>. Submissions should be properly formatted with all figures included within a maximum of four pages. Only electronic submissions in pdf format will be accepted for review. Authors should indicate their preference for oral or poster presentation. All submissions must be received by July 30, 2010. All accepted papers will be published in a digest and be included in IEEE Xplore.



## Call for Papers



# *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.

Technical papers are solicited 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
- ...and other areas of development and application of power amplifiers

Invited papers highlighting state-of-the-art developments from around the world will also be presented.

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

### Instructions for Authors:

Prospective authors are requested to submit by email a 2 page abstract in PDF format (one page text, not to exceed 500 words, and one page figures) clearly describing the novel features of their work, to the Technical Program Chair, John Wood, at [john.wood@freescale.com](mailto:john.wood@freescale.com)  
*Abstracts of accepted papers will be collected in a digest and distributed at the conference.*

### Deadline:

The deadline for abstract submissions is **July 12, 2010**.  
Authors will be notified of the acceptance decision by **August 3, 2010**.

*For further information, please contact P.A. Symposium 2010 General Chair:*

Paul Draxler                      [pdraxler@qualcomm.com](mailto:pdraxler@qualcomm.com)  
or visit the website:        <http://pasymposium.ucsd.edu>

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## **Power & Energy Society Announcements**



- **We have entered into the summer period. There will be no more technical luncheons until September 16th when last year's PES President Wanda Reder will present on interconnecting wind farms. Please note that we will no longer be holding luncheons at APS. We will provide the new venue information on the PES website once the details have been settled.**
- **The Phoenix PES chapter is forming a Local Organizing Committee for the March 2011 Power Systems Conference & Exposition. The LoC will assist the PSCE steering committee with organizing utility participation, conducting technical tours, and running the Companions program. Volunteers are needed both for the LoC and during the event. Volunteers will be compensated with Conference attendance.**

**Please contact [bruceladewig@ieee.org](mailto:bruceladewig@ieee.org) for details and to volunteer.**

**Conference details can be found at <http://www.psceexpo.com/>**



# 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](http://www.pscexpo.com)**



## IEEE Phoenix 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](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	<a href="mailto:cbj@johnsonscientificgroup.com">cbj@johnsonscientificgroup.com</a>
Vice Chair	Michel Ebertin	<a href="mailto:Michel@ebertin.net">Michel@ebertin.net</a>
Secretary	A. Barry Cummings	<a href="mailto:Barry.Cummings@srpnet.com">Barry.Cummings@srpnet.com</a>
Treasurer	Leslie Daviet II	<a href="mailto:lesdavietii@cs.com">lesdavietii@cs.com</a>
Program Chair	Ronald L. Sprague, P.E.	<a href="mailto:rlsprague@cox.net">rlsprague@cox.net</a>
Past Chair	Professor George Karady	<a href="mailto:karady@asu.edu">karady@asu.edu</a>



## Phoenix Chapter of IEEE Computer Society



### Future Events

- **August (date T.B.D.) – Chapter officer’s Fall Planning meeting; location T.B.D.**
- **September 8, 2010 – Chapter Meeting; location T.B.D. – (Tentative) Program: Apple workshop (iPhone 4.0, iPad overviews)**
- **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 (Linux, Android workshop?)**
- **Spring 2011 – 1/2-day workshop?**

Please contact [jjcandelaria@ieee.org](mailto:jjcandelaria@ieee.org) or any of our officers to suggest a topic and/or speaker for any of our upcoming meetings.

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

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.





## 2011 IEEE Phoenix Section Officer Nominations

The IEEE Phoenix Section is seeking nominations for the following Section officer positions for the 2011 term: Chair, Vice Chair, Secretary, and Treasurer. Section officers must be IEEE members. Self-nominations are acceptable.

Please send nominations or any questions to :

Bruce Ladewig (e-mail: [bruceladewig@ieee.org](mailto:bruceladewig@ieee.org)),

copying also Nominating Committee members

Hugh Barnaby (e-mail: [hbarnaby@asu.edu](mailto:hbarnaby@asu.edu)) and  
Steve Rockwell (e-mail: [steve.rockwell@ieee.org](mailto:steve.rockwell@ieee.org))

Section members are urged to submit your nominations within one month of this call for nominations.

Sincerely,

Bruce Ladewig

Chair, Nominating Committee, Phoenix Section

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## 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](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).

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## 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](http://www.erau.edu/jobs) or contact Dr. Ed Post at [postj@erau.edu](mailto:postj@erau.edu).



## 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](mailto: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](mailto: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.  
- Except for July & August

All interested IEEE members are welcome to attend.

**Contact:** Dr. Henning Braunisch, Phoenix Section Chair  
[braunisch@ieee.org](mailto:braunisch@ieee.org)

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## 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](mailto:r.kinner@ieee.org)

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## Phoenix Section Present on LinkedIn!

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.