

# The Valley Megaphone

Newsletter of the  
**Institute of Electrical and  
Electronics Engineers, Inc.,  
Phoenix Section**  
April 2010,  
Volume XXIV, Number 4



## Executive Committee - 2010

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IEEE Phoenix Section on-line updates can be found on our Web site 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](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

### Communication & Signal Processing

Harvey Thornburg, 480-727-7902

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### Computer Society

Jon Candelaria

[Jon.Candelaria@motorola.com](mailto:Jon.Candelaria@motorola.com)

### Consultants Network (PACN)

Ronald L. Sprague, 602-828-7374

[r.sprague@ieee.org](mailto:r.sprague@ieee.org)

### CPMT Society

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[Surinder.k.tuli@intel.com](mailto:Surinder.k.tuli@intel.com)

### Education Chapter

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### EMBS Chapter

TBD

### EMC Society

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### Power & Energy Society

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### Waves & Devices Society

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### Life Members

C Bruce Johnson,

[cbj@johnsonscientificgroup.com](mailto:cbj@johnsonscientificgroup.com)

## **U – News**

### **(for Student Members)**

IEEE STUDENT PAPER CONTEST ( See the Link Below for Application )

The Student Paper Contest is an excellent opportunity for visibility on student project work you are doing and to the University you are attending, as Papers are reviewed and selected by the Phx Executive Committee for a presentation at the Regional Event ( good visibility for Phx Section also ). Please take the opportunity to review requirements and submit your paper.

SCHOLARSHIP, CHAPTER and ADVISOR AWARDS at FEB BANQUET!

Recipients of the IEEE Phx Section Scholarship, Branch and Advisor Awards were present at the Annual Banquet which was very well attended. ASU Main and Embry Riddle Aeronautical University ( ERAU ) received the Chapter Participation Awards with Branch Advisor Dr. Edward Post ( ERAU ) receiving award for continued direction and support to their Student Branch. Scholarships awarded to Logan Hennessey and Elijah Brown ( both ERAU ) Vijay Sundaram, Chaturvedi Gogineni, and Songnan Wu ( from ASU ) with Sunku Ranganath ( ASU ) receiving a special award for support to Branch.

BRANCHES NOMINATING OFFICER CANDIDATES FOR 2010 - 2011

This is an important time of year as Student Branches and nominating and will be voting on the Student Branch Officers for 2010 - 2011. Each and every Student Member is encouraged to consider supporting their Branch in positions as an Officer or through support on the varied events being planned. Branch Officers have an excellent opportunity to interface with IEEE Section Executive Committee with Branch Reporting presented at Monthly Meetings.

Nick Leonardi  
480-720-1435 Cell  
[nleonardi@ieee.org](mailto:nleonardi@ieee.org)  
Student Activities Chair

### **Student Branches**

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

Chair: Harshini Yerra  
[ieeeasuchair@gmail.com](mailto:ieeeasuchair@gmail.com)  
Advisor: Cihan Tepedelenlioglu,  
(480) 965-6623, [cihan@asu.edu](mailto:cihan@asu.edu)

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

Chair: Nicholas Vaidyanathan  
[nvaidvan@asu.edu](mailto:nvaidvan@asu.edu)  
Advisor: Guoliang Xue  
(480) 965-6218 [xue@asu.edu](mailto:xue@asu.edu)

#### **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  
[dsmith2@devry.edu](mailto:dsmith2@devry.edu)

#### **NAU, Engineering**

Chair: Kenji R. Yamamoto  
[kry3@nau.edu](mailto:kry3@nau.edu)  
Advisor: Niranjana Venkatraman  
[v.niranian@ieee.org](mailto:v.niranian@ieee.org)

#### **Embry-Riddle, Prescott**

Chair: Tim Lemm  
[timothy.lemm@erau.edu](mailto:timothy.lemm@erau.edu)  
Advisor: John E. Post  
[postj@erau.edu](mailto:postj@erau.edu)

## **U – Newsbytes**

- ASU Polytechnic is currently seeking Advisor for the Student Branch. Please email Nick ( at email address above ) with Recommendations
- ERAU is planning an S-PAC Event in April and inviting Students from other Universities to participate. Details will be published as available.
- Student volunteers are being enlisted by the IEEE Event Organizers for IECON 2010 in Glendale, AZ. Details to be published as available.

See the Section Web site for updated forms for both the Student Paper Contest <http://www.ewh.ieee.org/r6/phoenix/StudentPaper.htm> and Scholarships <http://www.ewh.ieee.org/r6/phoenix/Scholarships.htm>.



# **36<sup>th</sup> Annual IEEE Industrial Electronics Conference (IECONN 2010)**



**7-10 November 2010, Greater Phoenix 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



### What is an S-PAC?

A Student-Professional Awareness Conference (S-PAC) is designed to promote networking and professionalism in the field of Engineering among students. This year's S-PAC will feature dinner, and a presentation by Rick Hubbard titled "Tales of an Experienced Engineer".

When is it? April 10<sup>th</sup>, 2010

Where is it? Embry-Riddle Aeronautical University, 3700 Willow Creek Rd, Prescott, AZ

Who can attend? The S-PAC is open to all who are interested

How much is it? General admission - \$20; Students - \$15

Who do I contact? Please contact Tim Lemm at [tlemm@gmail.com](mailto:tlemm@gmail.com) or (913)775-1485

### About our Speaker



Rick Hubbard is a software engineer who has served in the US Air Force. His expertise is in increasing efficiency and designing top-notch solutions for complex problems. He holds both Bachelor's and Doctorate Degrees in computer science and a Master's Degree in Business Administration. His talk will focus on the things that benefit an engineer that transcend raw talent, and the lessons he

has learned since his years as an undergraduate.

### About our Campus



Embry-Riddle Aeronautical University is home to engineers and pilots alike, who share a common interest in the sky. We located on the outskirts of beautiful Prescott, Arizona. Join us for a night of great food, great company, and excellent conversation.



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

<u>Date</u>	<u>Time</u>	<u>Location</u>	<u>Topic / Title</u>	<u>Speaker</u>	<u>Affiliation</u>	<u>IEEE Society</u>
27-Jan	5:30 PM	Agilent, Chandler	Digital Pre-Distortion for high linearity RF Power Amplifiers	Dr. John Wood	Freescale	ED & MTT
3-Feb Jointly Sponsored w/ ASU Center of Nanophotonics	1:30 PM	ASU, GWC-487	Si Photonics: Towards Lasers on Silicon	Dr. Sangam Chatterjee	Philipps-Universität Marburg Marburg, Germany	Photonics Center of Nanophotonics
Thursday Feb. 4	4:00 PM	Agilent, Chandler	Roth IRA Conversions – What You Need To Know	Mr. Greg Wojak	LPL Financial	General Interest
Friday Feb. 19	4:00 PM	ASU Brickyard	Non-Foster Reactances for Electrically-Small Antennas, High-Impedance Surfaces, and Engineered Materials	Dr. Jim Aberle	ASU	AP & MTT
Wed March 3 Jointly Sponsored w/ ASU Center of Nanophotonics	1:30 PM	ASU, GWC-487	Microscopic modelling and experimental results on high-power VECSELS	Prof. Dr. Stephan W. Koch	Philipps-Universität Marburg Marburg, Germany	Photonics and ASU Center of Nanophotonics
Wed. March 17	6:00 PM	Agilent, Chandler	High Speed Inter-Satellite Laser Communications Systems Design	Dr. Davis Hartman	General Dynamics	Photonics
Wed. March 26 Jointly Sponsored w/ ASU Center of Nanophotonics	1:30 PM	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	Photonics
Friday, Apr. 9	4:00 PM	ASU GWC-487	State-of-the-Art Time-Domain Measurement and Modeling Techniques for Non-linear Components & Systems	Dr. Christopher Silva	The Aerospace Corp.	MTT
Friday, April 16	4:00PM	ASU, GWC-487	Coupled EM/Device/Circuit Modeling Approach for RF/mm-wave IC's	Zheng Huang	ASU / Pedasoft	MTT
Thursday, April 29	6:00 PM	ASU Brickyard 6th Floor	Communications-Electronics and Enabling Mixed Signal Technologies	Dr. Barry Perlman	IEEE / Army	General
Thursday May 13	6:00 PM	ASU GWC-487	Are You Smarter Than a DARPA PM?	Dr. Robert Reuss	Consultant	General
Thursday, June 24	6:00 PM	Agilent, Chandler	Overview of NASA's Next Generation Manned Space Vehicle, Orion	William Boger	General Dynamics	MTT
Thursday, Aug. 4	6:00 PM	ASU GWC-487	Rough-Metal-Surface Propagation Loss Modeling	Dr. Henning Braunsch	Intel	MTT
Thursday, Sep.	6:00 PM	TBD	From mm-Wave Measurement to Design: Measurement, De-embedding and Design	Dr. Marcel Tutt	Freescale	ED & MTT
Sep				Someone from PAS		
Oct		ASU	Wireless Networks for Medical Implant Devices	Dr. Sayfe Kiaei	ASU	ED, MTT, & AP

**pecial Notice to IEEE Student Members:** Present your IEEE Student Member card at the meeting and get your meal for free including drinks (except for alcoholic beverages).



**INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS**  
**Waves and Devices - Phoenix Chapter**  
**Microwave Theory & Techniques Society Meeting**  
**Meeting Free & Open to Non-IEEE Members**



**4:00 PM, Friday, April 9, 2010**

**Arizona State University, Goldwater Center, GWC-487**

# **State-of-the-Art Time-Domain Measurement and Modeling Techniques for Nonlinear Components and Systems**

Dr. Christopher P. Silva, The Aerospace Corporation

## **Abstract**

The increasing demands for performance, mobility, and services in difficult physical channel and frequency allocation environments, in both commercial wireless and military contexts, pose formidable new challenges to communications designers. Arguably the most important of these major challenges is the classical trade between power efficiency and performance-limiting nonlinear distortion of the amplifiers used in such systems. This balance is exacerbated by the use of non-constant envelope modulations needed to achieve high bandwidth efficiencies, as well as multi-carrier protocols to simultaneously support many users. Current activity in these areas has especially focused on the system-level modeling of solid-state power amplifiers, with concomitant efforts on efficiency enhancement and distortion compensation, the latter in the form of predistorters, linearizers, and equalizers. Refined nonlinear measurement and modeling approaches will be required to successfully support these efforts, which will only escalate in difficulty with the use of increasingly complex and broader bandwidth signaling schemes.

This presentation introduces and describes highly accurate baseband time-domain measurement and modeling techniques applicable to nonlinear communication components and systems having bandwidths ranging up to several GHz. It will begin with an overview and comparison of time-domain versus frequency-domain measurements as they pertain to nonlinear components and systems. The development and details of a baseband time-domain measurement technique and system will follow, which provides state-of-the-art measurement accuracies of time-domain waveforms. The important, but often neglected issue of what model fidelity is required to support the accurate estimation of system performance metrics, such as the ubiquitous bit error rate (BER), will be addressed. A survey of some common frequency-domain blackbox modeling approaches will be described and evaluated, indicating their inadequacies for wideband and complex modulations. Finally, an introduction will be given of a new systematic approach, termed the polyspectral method, which is based on time-domain input/output measurements involving operational modulated signals. This method provides a powerful set of tools, and numerous benefits for the state-of-the-art nonlinear modeling and distortion compensation of communications systems. This claim will be illustrated by a polyspectral model variant



for both solid-state and traveling-wave tube amplifiers, as well as a brief survey of the method's application to distortion compensation design/evaluation.

## Biographies

Dr. Christopher P. Silva received the B.S., M.S., and Ph.D. degrees, all in electrical engineering, in 1982, 1985, and 1993, respectively, from the University of California at Berkeley. Professor Leon O. Chua directed his graduate work with an emphasis on nonlinear circuit and system theory. He joined the Electronics Research Laboratory of The Aerospace Corporation in 1989 and is currently a Senior Engineering Specialist in the Communication Electronics Department, Communications & Networking Division. He has been the principal or co-investigator on several internally funded research projects addressing nonlinear microwave CAD, private/secure communications and radar by means of chaos, stability analysis of nonlinear circuits, and the measurement, modeling, and compensation of nonlinear satellite communications channels, the latter of which has become an advanced technology development for several military space programs. He has given many invited talks at conferences, society meetings, universities, industry, and laboratories on the applications of nonlinear techniques to communications and signal processing, along with corresponding publications in various venues. Dr. Silva is a Fellow of IEEE, a Senior Member of AIAA, and a member of AAAS, AMS, and SIAM

**Date:**           **Friday, Apr. 9th, 2010**

**Time:**           **4:00 PM *Presentation*, Pizza will be served following the Seminar**

**Location:**   **Arizona State University, Main Campus, Goldwater Center (GWC) Room 487**  
Enter building through main (south) lobby and take elevator to fourth floor. Go north down the west hallway, the conference room is on the right.  
See <http://www.asu.edu/map/> for map.

For more information, contact:

Steve Rockwell (WAD Chapter Chair)   (480) 241-9891   [steve.rockwell@ieee.org](mailto:steve.rockwell@ieee.org)  
Chuck Weitzel (Chapter Publicity)       (480) 292-0531   [c.weitzel@ieee.org](mailto:c.weitzel@ieee.org)

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



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



**Microwave Theory & Techniques Society Meeting**  
**Meeting Free & Open to Non-IEEE Members**

**4:00 PM, Friday, April 16, 2010**

**Arizona State University**  
**Main Campus, Goldwater Center (GWC) Room 487**

**Coupled EM/Device/Circuit Modeling Approach for**  
**RF/mm-wave IC's**

**Yasser A. Hussein, Ph.D.**  
PedaSoft LLC

**Abstract**

In this presentation, a novel coupled EM-Physics-Circuit modeling method for RF/mm-wave IC's is introduced. The new technique can be used for EM modeling of power amplifiers, switches, filters, active antennas, and complete RF modules such as antenna-switch, switch-filter, switch-filter-amplifier, and front-end modules with no approximations. The method is based on FDTD, which couples 3D/2.5D EM planar-circuit simulator with active device models, generated internally using physics-based models, circuit models, measurements, such as Curtice, Tom, Stutz, Angelov, Verilog-A, as well any foundry models. The method models EM fields as they pass through the active and passive components to represent the actual behavior of your chip as it physically happens. The technique is an accurate alternative to what RF designers are using today "i.e. modeling the active and passive parts of the chip using separate field and circuit simulators, followed by combining the results employing simple approximations; without taking the effect of electromagnetic field-coupling, radiation, and interference into consideration," which leads to inaccurate models, especially at high power and/or high frequency circuits. Design examples will be presented as well as comparison with measurements.

**Biography**

Dr. Hussein received his Ph.D. in 2003 from ASU. He worked at academia and industry including Stanford University as a Senior Member of Technical Staff and lecturer and at Intel Corp. as the RF design lead for Intel's WiMax project. Dr. Hussein has more than 30 publications as well as a book chapter and a patent on RF and mm-wave design and modeling areas.

**Date:           Friday, Apr. 16th, 2010**

**Location:** Arizona State University, Main Campus, Goldwater Center (GWC) Room 487  
Enter building through main (south) lobby and take elevator to fourth floor.  
Go north down the west hallway, the conference room is on the right. See  
<http://www.asu.edu/map/> for map.

**Time:           4:00 PM Presentation, Pizza will be served following the Seminar**  
***No reservations required***

For more information, contact: Steve Rockwell (WAD Chapter Chair) (480) 241-9891 [steve.rockwell@ieee.org](mailto:steve.rockwell@ieee.org)

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





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



**Microwave Theory & Techniques Society Meeting**  
**Meeting Free & Open to Non-IEEE Members**

**6:00 PM, Thursday, April 29, 2010**

**Arizona State University Brickyard on Mill, Room BYeng-660**  
**Brickyard 6<sup>th</sup> Floor**

## **Communications-Electronics and Enabling Mixed Signal Technologies**

**Dr. Barry Perlman**

U.S. Army Communications-Electronics RD&E Center  
Fort Monmouth, NJ 07703

### **Abstract**

Recent advances in radio frequency solid state microelectronics and complementary microelectromechanical systems offers potential for producing highly agile, reconfigurable, compact and low power communication and microwave systems. Applications include cognitive networks of intelligent reconfigurable systems. Additionally, increasing use of innovative microelectronics for radio frequency and microwave applications offers dramatic cost reduction with a significantly higher degree of system integration, adaptability and ease of use. This is also resulting from increasing use of systems on chips that combine analog, digital and high frequency functionality. Use of these mixed signal chips are enabling dramatic increases in system capabilities.

### **Biography**

Dr. Perlman is responsible for many R&D programs in the area of communications, sensing, control and computing, e.g. C4ISR in the Army Communications-Electronics RD&E Center. He is an agent and technology advisor to numerous organizations including DARPA and OSD and PM/COTR for many advanced technology programs. Prior to this position, he was Division Chief for the Sensor and High Frequency Electronics Division of the Army Research Laboratories.

Previously he was a Group Head in the Microwave Technology Center at RCA Laboratories where he did research in the field of microwaves and RF engineering. He led a team in the development of advanced CAD techniques and developed a variety of innovative solid state technologies including studies of transport in III-V semiconductors, parametric devices and amplifiers where he is acknowledged as a pioneer.

Dr. Perlman is a Life Fellow of the IEEE, Past President of the MTT-S, and a member of the National Defense Industrial Association (NDIA). He is or has been an advisor to numerous R&D initiatives, e.g. MURI's and DURINT's, a member of and advisor to numerous academic/industrial advisory boards including the NSF IUC Connection One initiative at ASU, the Center for Advanced Technology for Telecommunications at NYU Poly, the DARPA IMPACT Center on MEMS Modeling at UIUC, Georgia Tech and Leigh, the Engineering Visiting Committee (Purdue), the NJ Nanotechnology Consortium, the NJ R&D Council, the

Army Nanotechnology Working Group and Institute for Soldier Nanotechnology at MIT and other IAB's at Ohio State, UMD, USF, UC Davis and the GEDC at the Georgia Institute of Technology. He is also an advisor to the Office of the Secretary of Defense on STEM Education. He is listed in Who's Who in America, Who's Who in Science and the International WHO'S WHO of Professionals Historical Society.

**Date:**           **Thursday, Apr. 29th, 2010**

**Location:**   Arizona State University, Brickyard on Mill, 6<sup>th</sup> Floor, Room BYeng-660  
<http://www.asu.edu/tour/tempe/byeng.html>  
Parking underground or on streets nearby. From underground take elevator at west end of parking area.

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

Steve Rockwell (WAD Chapter Chair) (480) 241-9891 [steve.rockwell@ieee.org](mailto:steve.rockwell@ieee.org)

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



## Power & Energy Society Announcements



### Future Technical Meetings

April 15<sup>th</sup> APS

May 20<sup>th</sup> SRP

Sep 16<sup>th</sup> APS

Oct 21<sup>st</sup> SRP

Nov 18<sup>th</sup> APS



## IEEE Phoenix Life Member Affinity Group

### 2010 April Technical Meeting

**Topic:** Iconoclast: revisits Climate Change

**Subtitle:** Climate Change Some Pleasant Truths

A considerable share of the limited resources of the country, and of scientists and engineers, is being wasted on the speculation about global warming and the role of CO<sub>2</sub>. Data obtained by scientists about the temperature cycles for many thousands of years in the past have shown significant temperature cycles without the effect of large human populations. However, we have current evidence that many wrong actions have been taken because of political and financial reasons. There are solid data out there, which conclusively proves man made global warming to be at best insignificant.

<b>When:</b> Friday, April 16, 2010, 11:00am – 1:00pm
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**Where:** SRP's **PERA Club**'s Bighorn,  
1 East Continental Drive, Tempe, AZ  
West of 68th St., ½ mile south of McDowell Road

Click this map link to SRP PERA Club:  
<http://insidesrp/pera/facilities/PERAstreetmap.pdf>

**RSVP:** Please respond by *Tuesday, April 06*, to  
Section Secretary, Barry Cummings at: [Barry.Cummings@srpnet.com](mailto:Barry.Cummings@srpnet.com)

**Speaker:** Albert G. Engelhardt, President and CEO Enfitek, Inc.

**Biography:** 51-year professional career covers a broad spectrum as a university professor, a research engineer & physicist, a LANL Staff Member, corporate executive, census taker & construction worker. He has been active in IEEE activities both locally, nationally & internationally since 1957 when the IEEE was the IRE & occasionally glared at the AIEE its subsequent merger partner. He is a charter member (1975) of the Los Alamos Section now the Los Alamos & Northern New Mexico Section. He has been instrumental in organizing three Chapters: CS, NPSS & Life Member. He has served Region 6 (Western US) from 2003 to 2006 as a Member of the Ethics Committee & as Southwest PACE & Area Chairs. Currently he is the Region 6 Life member Coordinator.

Dr Engelhardt holds a Ph.D. in electrical engineering from the Univ. of Illinois and is a Life Senior Member of the IEEE. He originated the concept of the Section Public Forum - on Global Warming in 1998 & on Professionalism, Security & Civil Rights in 1999.

He has written two books and has published over 150 papers and holds 5 patents.

## About IEEE Phoenix Section Life Member Affinity Group:

The Phoenix group was organized in 2008 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. IEEE "Life" status is an automatic process when a member is least 65 year of age and has been a member of IEEE societies for such a period that the sum of his/her age and his/her years of membership equals or exceeds 100 years. For more information 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)

Our 2010 Officers are:

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:r.sprague@ieee.org">r.sprague@ieee.org</a>
Past Chair	Professor George Karady	<a href="mailto:karady@asu.edu">karady@asu.edu</a>



# Computer Society Technical Meetings

**Phoenix Chapter Website**

[www.ewh.ieee.org/r6/phoenix/compsociety](http://www.ewh.ieee.org/r6/phoenix/compsociety)



## **Next Monthly Meeting Chapter Meeting**

**Date:** Tuesday, April 6, 2010 6:00 PM- 8:30 PM

**Speaker:** Dr. George Proeller, Colorado Technical University;  
IEEE Computer Society Distinguished Lecturer

**Title:** "Personal Electronic Devices; iPODS, PDAs &  
Cell Phones - a Forensics Discussion"

iPods, PDAs, and cell phones continue to merge in form, fit, and functionality and now include data acquisition (cameras, keyboards, usb ports, etc), data aggregation, and storage (some up to 80 gigabytes), and communications capabilities (IR, Bluetooth, wireless internet access, and cellular telephone). This presentation provides insights into the features and capabilities of such systems, their possible uses in unethical and possibly unlawful activities, and as discussion of the concepts of forensic analyses and approaches useful in combating such uses.

### **Location:**

University of Advancing Technology, 2625 W. Baseline Road., Tempe, Az. (near the corner of Baseline and 48<sup>th</sup> St.)

Networking will be from 6:00-7:00 P.M. with a light meal. Meeting Room number will be announced on our web site and via email to all of those on our mailing list at least one week prior to the meeting. **Presentation starts at 7:00 P.M.**

**Free, everyone is welcome.**





## Computer Society Technical Meetings

Phoenix Chapter Website

[www.ewh.ieee.org/r6/phoenix/compsociety](http://www.ewh.ieee.org/r6/phoenix/compsociety)



### Future Events

- **April 6, 2010 – University of Advancing Technology (48<sup>th</sup> St. & Baseline)**
  - Dr. George Proeller; “**Personal Electronic Devices; IPODS, PDAs and Cell Phones - a Forensics Discussion**”
- **May 3, 2010 - University of Advancing Technology (48<sup>th</sup> St. & Baseline)**
  - Prof. Adrian Sannier, and Prof. Raghu Santanam; ‘**Cloud Computing - Where it's At, Where it's Headed: Challenges and Possible Solutions**’
- **September 1, 2010 – DeVry University (Dunlap & 22nd Ave.)**
  - Jerry Crow; ‘**Cryptography, Part 1**’
- **October 6, 2010 – DeVry University (Dunlap & 22nd Ave.)**
  - Jerry Crow; ‘**Cryptography, Part 2**’
- **November 3, 2010 – TBA**
- **December 1, 2010 - TBA**

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.

### Past Meetings

For information about any past meetings and presentation files, go to:  
[www.ewh.ieee.org/r6/phoenix/compsociety/meetings/meetings.htm](http://www.ewh.ieee.org/r6/phoenix/compsociety/meetings/meetings.htm)



## IEEE Phoenix Area Consultant's 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.

April 25                      PACN Picnic

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.



## 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)

## **Phoenix Section Executive Committee Meeting** **– First Tuesday of the month.**

**Venue:** Phoenix Airport Hilton, 2435 S 47th St, Phoenix, AZ, 85034  
Tel.: 480-804-6017

**More Info:** Meetings are held on the first Tuesday of the month. All interested IEEE members are welcome to attend.

**Contact:** Dr. Henning Braunisch, Phoenix Section Chairman,  
[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.