The Valley Megaphone



Newsletter of the **Institute of Electrical and Electronics Engineers, Inc., Phoenix Section** May 2010, Volume XXIV, Number 5

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 and to Russ Kinner at r.kinner@ieee.org for inclusion in the Section Calendar.

Chapters

Communication & Signal Processing Harvey Thornburg, 480-727-7902 harvey.thornburg@asu.edu

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> **EMBS** Chapter TBD

EMC Society Harry Gaul, 480-441-5321 harry.gaul@ieee.org

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Power & Energy Society Bruce Ladewig, 480-620-9291 bruceladewig@ieee.org

> Solid State Circuits Hugh Barnaby hbarnaby@asu.edu

Teacher-In-Service Mike Poggie mike.poggie@ieee.org

Waves & Devices Society Steve Rockwell, steve.rockwell@ieee.org

Life Members C Bruce Johnson, cbj@johnsonscientificgroup.com

The Valley Megaphone is the newsletter of the Phoenix Section of the Institute of Electrical and Electronics Engineers. It is published monthly and reaches about 4000 members. Submit articles, advertisements, and announcements to Satish Ayer at the above email address. Deadline for announcements and advertisements is the third Friday of the month prior to publication. Advertising Rates: Full page: \$200, 3/4page: \$125, ½ page: \$75, 1/3 page: \$50, 1/4 page: \$25. Change of address/email? Call toll free 1-800-678-IEEE. Please allow 6-8 weeks. Section Web Page is: http://www.ieee.org/phoenix

U – News

(for Student Members)

IEEE REGION 6 SW AREA SPRING MEETING HELD at ASU in TEMPE

The Region 6 Southwest Area meeting was held Saturday April 10th on the ASU Tempe Campus, with members of Phoenix Section Executive Committee there to support coordination of various presentations and other related events, with several other IEEE Sections represented at the meeting. There were several students from various Universities participating in events such as the Student Paper Contest and the MicroMouse Maze competition.

IEEE STUDENT PAPER CONTEST. . . ERAU leads Phoenix Section ! !

The Student Paper prepared by Elijah Brown of Embry-Riddle, titled : A Detection System for the Navel Space Surveillance Radar Transmitters, was selected as Winner of IEEE Phoenix Section Paper Contest for 2010 and went on to compete in the SW Area Paper Contest, taking 3rd place. Excellent work by Mr. Brown with other Sections presenting on the topics of Solar Cell, Computer Programming, Autonomous Cars and Data Mining.

S-PAC EVENT HELD by Embry-Riddle Aeronautical University April 10th

ERAU continues to lead the Student Branches with excellent effort and cooperation, with the preparation of an S-PAC Event help last month. Interface between students and industry professionals is key to success and continued growth of IEEE Organization. Direct mentoring of student members leverages the potential of them becoming professional members upon graduation. This will be a focus for all Student Branches for 2010-11.

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 <u>nleonardi@ieee.org</u> Student Activities Chair

Student Branches

ASU Main, Engineering Chair: Harshini Yerra <u>ieeeasuchair@gmail.com</u> Advisor: Cihan Tepedelenlioglu, (480) 965-6623, <u>cihan@asu.edu</u>

ASU Main, Computer Society Chair: Nicholas Vaidyanathan <u>nvaidyan@asu.edu</u> Advisor: Guoliang Xue (480) 965-6218 <u>xue@asu.edu</u>

> ASU Polytechnic Chair: Justin Burrell justin.burrell@asu.edu Advisor: TBD

DeVry, Phoenix Chair: TBD Advisor: Diane Smith dsmith2@devry.edu

DeVry, Computer Society Chair: TBD Advisor: Diane Smith <u>dsmith2@devry.edu</u>

NAU, Engineering Chair: Kenji R. Yamamoto <u>krv3@nau.edu</u> Advisor: Niranjan Venkatraman <u>v.niranjan@ieee.org</u>

Embry-Riddle, Prescott Chair: Tim Lemm timothy.lemm@erau.edu Advisor: John E. Post postj@erau.edu

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.

IEEE 36th 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

IEEE SCSS & Eta Kappa Nu Electrical Engineering Afternoon



Date: Friday, May 14th, 2010

Time: 12:30 PM to 3:00pm

Location: Imagine Elementary School 1538 E Southern Ave Tempe, AZ 85281

Description:

The Electrical and Computer Engineering Honor Society, Eta Kappa Nu (HKN) has partnered with IEEE SCSS for an outreach program designed to increase awareness amongst sixth and seventh grade students at Imagine School in Tempe of electrical and computer engineering opportunities at the university level. This program will help these students learn the basics of electronics by building an alarm, doorbell or any one of the other 100 experiments from an Electronics Learning Lab Kit. Two to three students will be paired with an Eta Kappa Nu mentor and a lab kit and have an hour to complete a designated experiment.



Attend a free seminar about accelerating your analog IC layout and enter a raffle to win an Apple iPad. Come learn about an intuitive layout process that could save you hundreds of hours of design time.

We are holding these seminars throughout Arizona this May.

Feel free to forward this information to anyone who may be interested. Attendance is limited, so be sure to register by May 5th, at: <u>http://www.tannereda.com/dm2/azseminaroth</u>

I look forward to seeing you next month.

Douglas Bloom | Account Manager | **Tanner EDA** 825 South Myrtle Avenue | Monrovia, CA | 91016 Phone +1-626-471-9770 | Fax +1-626-471-9801 dbloom@tannereda.com | www.tannereda.com



IEEE Phoenix Valley Megaphone May 2010 Waves and Devices Phoenix Chapter

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

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2010 Calendar

Special 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*



<u>6:00 PM, Thursday, May 13th, 2010</u> Arizona State University, Goldwater Center, GWC-487

Are You Smarter Than a DARPA PM?

Dr. Robert Reuss

Former DARPA PM, Consultant

Abstract

The Defense Advanced Research Projects Agency (DARPA) is the R&D arm of the Pentagon. It is a child of the space age, with its creation directly attributed to Sputnik in1957. DARPA has a long and illustrious history in fostering some of the most important science and technology breakthroughs of the last 50 years. It was my great honor and privilege to serve as a program manager (PM) at DARPA for five years (2001 to 2006).

In this presentation I will focus on three areas in an effort to describe DARPA and what it is like to be a DARPA PM.

- DARPA history and future from an electronics perspective (especially Si ICs).
- DARPA's mode of operation in selecting and managing an R&D program.
- Personal experiences as a DARPA PM suggesting the opportunity to the attendees.

While at DARPA, Dr. Reuss was responsible for several research thrusts into fabrication of flexible, large area electronics including high mobility TFTs for digital and RF applications and organic photovoltaics, as well as conventional microelectronics efforts that included reconfigurable, multi-core processor design, asynchronous logic design methodology, and sub-threshold, ultra-low power operation. Prior to joining DARPA, Dr. Reuss spent twenty years in various technology and research management positions with Motorola.

Date: Thursday, May 13th, 2010

Time:6:00 PM Presentation,Pizza will be served following the SeminarNo Reservations Required

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 <u>http://www.asu.edu/map/</u> for map.

For more information, contact:

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



Power & Energy Society Announcements



May Technical Luncheon

Date: Thursday, May 20, 2010

Location: SRP PERA Club

Speaker: Marc L. Etherton, P.E., PDS Consulting, PLC

Topic: An Update on the SunZia Southwest Transmission Project

Summary: Mr. Etherton is returning to provide an update on the SunZia Southwest Transmission Project, which is a 345kV line being proposed between southern New Mexico and southern Arizona. Mark has previously presented to PES on the project's inception and scope, some of the goals and restrictions associated with the proposed effort, and the schedule.

Biography: Prior to starting PDS Consulting in August 2006, PLC, Mr. Etherton was a partner at K.R. Saline and Associates, PLC. He has twenty-three years of electric utility experience with responsibilities ranging from system planning and analysis, protective relaying, substation design and communications systems, as well as approximately nine years in utility supervision and management. Mr. Etherton has been actively involved with the regional transmission planning organizations, including; Southwest Transmission Expansion Plan (STEP), Southwest Area Transmission (SWAT), and the Central Arizona Transmission Study (CATS) committee planning EHV facilities with local and regional utilities, independent power producers and the Arizona Corporation Commission. Mr. Etherton also has extensive background and experience in transmission and distribution system planning, Navajo and Palo Verde Operation Studies, WECC Seasonal Nomogram Studies, communications and protective relaying systems and developing operating procedures for system operations. He earned his B.S. in Electrical Engineering in May, 1984 from New Mexico State University and has been a Registered Professional Engineer in Arizona since February, 1990.

See the PES website for details on this meeting.

Future Technical Meetings

Sep 16th APS Oct 21st SRP Nov 18th APS

IEEE IEEE Phoenix Life Member Affinity Group

About IEEE Phoenix Section Life Member Affinity Group:

The IEEE Phoenix Section Life Member (LM) Affinity 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. Life Members Affinity Groups replaced Life Member Chapters in 2005.

Acitivites:

Annually, three technical meetings and three administrative meetings meet our minimum required activity.

A 2010 goal is to add activities meeting some of the other purposes stated above. Please participate in this 2010 goal by contacting any of the Group's officers with ideas. Technical meeting topics and suggested speakers are also encouraged.

Members:

An IEEE member automatically becomes an IEEE "Life Member" status when at least 65 years of age and a member of IEEE (including predecessor societies) for a period sufficient for the minimum 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

2010 Officers:

Chair	C. Bruce Johnson
Vice Chair	Michel Ebertin
Secretary	A. Barry Cummings
Treasurer	Leslie Daviet II
Program Chair	Ronald L. Sprague, P.E.
Past Chair	Professor George Karady

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Upcoming:

Technical meeting: October 2010, date and topic to be announced.

Computer Society Technical

<u>Phoenix Chapter Website</u> www.ewh.ieee.org/r6/phoenix/compsociety

Next Monthly Meeting Chapter Meeting



Date: Tuesday, May 4, 2010 6:00 PM- 8:30 PM

Main Speakers: Prof. Raghu Santanam & Dr. Adrian Sannier

Arizona State University

Title: "Cloud Computing and the Future of IT"

Cloud computing offers new opportunities and challenges for researchers in Computer Science, Information Technology and Business.

Cloud computing enables new ways of composing and defining IT services. It also enables organizations to store, manage and harness large amounts of data at very low computational costs.

The talk will cover the fundamental forces shaping the emergence of Cloud computing. Examples of the use of cloud computing approaches in education and industry will be discussed.

Location:

University of Advancing Technology, 2625 W. Baseline Road., Tempe, Az. (near the corner of Baseline and 48^{th} St.)

Agenda:

6:00-7:00 P.M. – Networking & Light Meal 7:00-8:30 P.M. – Presentation

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.

- Members & Non-Members All Welcome -



Computer Society Technical Meetings



<u>Phoenix Chapter Website</u> www.ewh.ieee.org/r6/phoenix/compsociety

Future Events

- May 4, 2010 University of Advancing Technology (48th 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; 'Crytography, Part 1'
- October 6, 2010 DeVry University (Dunlap & 22nd Ave.)

 Jerry Crow; 'Crytography, Part 2'
- November 3, 2010 T.B.D., Chapter Elections
- December 1, 2010 T.B.D.

Please contact 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.ieeecs.com



IEEE Phoenix Area Consultant's Network



Our current officers are:

President	Ronald L. Sprague, P.E.	r.sprague@ieee.org
Vice President	C. Bruce Johnson	<u>cbj@johnsonscientific.com</u>
Treasurer	Bill Morgan	<u>bill.morgan@cox.net</u>
Secretary	Ed Mischen	<u>ed.mischen@cox.net</u>
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Program Chairmar	n Robert Petro	Robert.petro@systemdatasolutions.com
Member at Large	Land Garrett, P.E.	lanegarret@aol.com
Member at Large	Ed Bawolek	<u>bawolek@ieee.org</u>

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.



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 <u>IEEE Microwave Theory and Techniques Society</u> 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 <u>IEEE Instrumentation and Measurement Society</u> 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)

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, <u>braunisch@ieee.org</u>

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: <u>r.kinner@ieee.org</u>

Phoenix Section Present on LinkedIn!

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