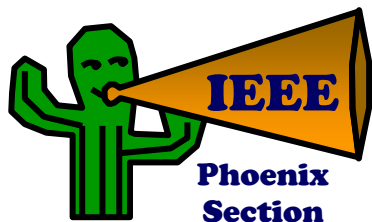


The Valley Megaphone

Newsletter of the
**Institute of Electrical and
Electronics Engineers, Inc.,
Phoenix Section**
February 2013,
Volume XXVII, Number 2



Executive Committee 2013

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IEEE Phoenix Section on-line updates can be found
at <http://ewh.ieee.org/r6/phoenix/> and on
LinkedIn at:

<http://www.linkedin.com/groups?gid=2765918>

Please send announcements for the *Valley
Megaphone* to Surinder Tuli at
surinder.tuli@gmail.com and to Russ Kinner at
r.kinner@ieee.org for inclusion in the Section
Calendar.

The IEEE Banquet pictures are up, see
<http://ewh.ieee.org/r6/phoenix/index.php>

**All meetings announced in the
Phoenix Section Megaphone or on
the Phoenix Section Calendar are
open to everyone (IEEE members
and non-Members)**

Chapters

Signal Processing & Communications

Pavan Turaga
pturaga@asu.edu

Computer Society

Jerry Crow
jerry.crow@computer.org

CPMT Society

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Education Chapter

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EMBS Chapter

TBD

EMC Society

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GOLD

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Waves & Devices Society

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Life Members

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Rao.Thallam@srpnet.com

Women In Engineering

Shamala Chickamenahalli
shamala.chickamenahalli@intel.com

U – News

(for Student Members)

Updates of Student Advisors and Committee Members

Each Student Branch noted on the right side of this page should review current information on Advisors and Student Committee Members and forward to my attention within this week, as we are reviewing contacts for reporting and activities including Student Monthly Meetings.

S. Diane Smith
602-749-4601
sdianesmith@computer.org
Student Activities Chair

Student Branches

ASU Main, Engineering
Chair: Ahmet Durgun,
480-371-7743, adurgun@asu.edu
Advisor: Cihan Tepedelenlioglu,
480-965-6623, cihan@asu.edu

ASU Main, Computer Society
Chair: TBD
Advisor: Guoliang Xue
480-965-6218, xue@asu.edu

ASU Polytechnic
Chair: TBD
Advisor: TBD

DeVry, Phoenix
Chair: Lori Renaldi
lorirenaldi@computer.org

Advisor: Diane Smith
dsmith2@devry.edu

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

NAU, Engineering
Chair: TBD
Advisor: Niranjan Venkatraman
v.niranjan@ieee.org

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

U – Newsbytes

ASU Polytechnic is currently seeking Advisor for the Student Branch. Please email Diane (at email address above) with Recommendations.

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, S. Diane Smith
sdianesmith@computer.org

- View pictures from the MicroMouse contest at the Southwest Area Spring 2010 meeting at <http://picasaweb.google.com/ieeegoldphx/2010IEEEESWASpringMeeting> (photography by David Huerta, GOLD Affinity Group Chair)

IEEE Student Paper Contest

Phoenix Section Student Paper Contest 2013

The IEEE Student Paper Contest offers the undergraduate IEEE Student member opportunities to exercise and improve both written and verbal communication skills. Throughout a successful career, an engineer will be constantly called upon to communicate ideas to others. Researching, writing, and presenting a paper provides a student with invaluable early experience in expressing ideas related to engineering. The primary function of the paper contest is to improve communication skills. No student should be discouraged from entering the contest because they think they are not technically sophisticated.

The undergraduate student paper contest consists of a written paper and an oral presentation. The written paper should comply with the [IEEE Regional Student Paper Contest Guidelines](#) (PDF). The papers should be a maximum of 15 pages, double-spaced with 12-pt font. The written paper, as either an MS Word or an Adobe PDF file, should be emailed to sdianesmith@computer.org by **6 p.m. on March 2, 2013**.

The oral presentations are 15 minutes plus a 5-minute question & answer period. The oral portion of the contest will be held the morning of Saturday, **March 16, 2013**. A computer with projector will be provided. PowerPoint slides are recommended.

The local awards for the paper contest winners are (1) First Place – \$300, (2) Second Place – \$200, and (3) Third Place – \$100. The five judges are local IEEE members, often IEEE Senior Members or IEEE Fellows.

The top entrant from *each* local Student Branch is eligible to present their paper to the IEEE Region 6 Southwest Area in Spring 2013.

If you have any questions, please contact:

Dr. S. Diane Smith
IEEE Phoenix Section
Student Activities Chair
E-mail: sdianesmith@computer.org

Signal Processing & Communications Society

Phoenix Chapter of IEEE Signal Processing Society and
Communications Society



Upcoming events

TWELFTH ANNUAL WIRELESS TELECOMMUNICATIONS SYMPOSIUM (WTS 2013)

April 17-19, 2013, Phoenix, Arizona USA

Technical Co-Sponsor: IEEE Communications Society

Call for papers WTS 2013 can be found at www.csupomona.edu/wtsi

WTSI General Chair: Steven Powell

Please contact Chapter Chair Pavan Turaga (pturaga@asu.edu) to volunteer or propose a speaker for upcoming meetings.

CPMT Phoenix Chapter

CPMT- Packaging and Manufacturing Technology Society



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



New Updates coming soon

IEEE CPMT Society Phoenix Chapter is seeking volunteers to serve as Chapter Officers for 2013.

IEEE CPMT Society Phoenix Chapter is seeking volunteers to serve as Chapter Officers for 2013. One has to be a member of IEEE CPMT Society to serve as the IEEE CPMT Society Phoenix Chapter Officer. If interested, please contact Dr. Vasudeva P. Atluri, Chair, IEEE CPMT Society Phoenix Chapter, by sending an email to vpatluri@ieee.org.

Power & Energy Society



IEEE Power and Energy Society
Phoenix Chapter

<http://ewh.ieee.org/soc/pes/phoenix/>



News and Announcements:

- At the IEEE Phoenix Section Annual Award Banquet, the Phoenix PES Chapter was named the Outstanding Chapter for 2011 (<http://ewh.ieee.org/soc/pes/phoenix/OutstandingChapterAward2011.JPG>). We would like to thank everyone who supports our Chapter by sponsoring and participating in our annual golf tournament and by attending our monthly luncheons.
- Want to know more about IEEE Power and Energy Society? Watch this video:
 - http://www.youtube.com/watch?v=BRKM4lpo_tk
 - More videos are available at:
<http://ieeepes.org/outreach/pes-informational-promotional-videos>
- Have you considered becoming a Senior Member of IEEE? It's not as difficult as you think. Basically, you need ten years of professional experience, and your bachelor's degree counts for three of those years. Find out more at:
http://www.ieee.org/membership_services/membership/senior/index.html

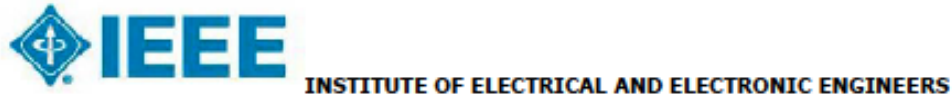
February 2013 Luncheon Meeting

Date: Thursday, February 21, 2013
Time: 11:30 am - 11:45 noon: Registration
11:45 noon: Lunch
12:15 pm: Program
Location: SRP PERA Club
1 E Continental Dr
Tempe, AZ
Map: <http://ewh.ieee.org/soc/pes/phoenix/images/PERAMAP.pdf>
Speaker: Bret Marchese, SRP; Other speaker(s) to be announced.
Topic: Hurricane Sandy Assistance
Cost: \$5.00 (No cost if you are a college student)
Reservations: Contact Nicole at (602) 470-0400 or submit your name here:
<http://ewh.ieee.org/soc/pes/phoenix/lunch.php>
The reservation deadline is NOON on Monday, February 18, 2013.

Presentation Abstract:

SRP sent 62 employees and APS sent 36 employees to assist Long Island Power Authority (LIPA) in restoring power in the aftermath of Hurricane Sandy. The speakers will be giving presentations and Q&A detailing the restoration efforts.

Solid State Circuits Society



Solid State Circuits Society --Phoenix Chapter

Seminars are Free & Open to Non-IEEE Members

Observer-Based Test in Analog/RF Circuits

Dr. Sule Ozev – Arizona State University
February 13, 2013 12pm to 1 pm
ASU GWC 487

Analog/RF circuit testing, builtin-test and quality control generally relies on ad-hoc experience based test modules, each of which require a special test setup. This process leads to a lack of standards, metrics, as well as long test times, complicated load board design, and potential test escapes. The goal of observer based testing is to develop an observer model of the overall circuit including all of its desired and undesired behavior and use this model to develop necessary test signals that can determine multiple parameters at once with a known estimation error. In this talk, observer based testing will be discussed and examples will be demonstrated based on RF transceiver circuits.

Dr. Ozev received her Ph.D. from University of California, San Diego in 2002 in Computer Science and Engineering. She joined the Electrical and Computer Engineering Department of Duke University that same year. In 2008, she moved to Arizona State University and joined the faculty of the Electrical, Computer, and Energy Engineering School. Her research interests include statistical and model-based test methods for analog and RF circuits, adaptive test for digital parametric tests, built-in-self test, and process optimization and modeling for emerging technology devices.

Co-sponsored with ASU Connection One

SSCS-PHX Chapter Website: http://www.ieee.org/go/sscs_phx
Contact: Cyndi Racker (cyndi.racker@ieee.org), SSCS-PHX Chapter Chair

EMC Society

Technical Meeting



New Scanning Tools for EMC Investigations

Date: Thursday, February 7th, 2013

Place: Garcia's Mexican Restaurant at Embassy Suites Hotel

Address: 4400 South Rural Road, Tempe, Arizona

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

Time: 5:30PM Social in Garcia's, 6PM Dinner in Garcia's, 7PM Meeting in Embassy Suites Junior Ballroom (upstairs)

Title: New Scanning Tools for EMC Investigations

Speaker: Michael Hopkins, Amber Precision Instruments

Abstract: New scanning technologies have been developed that can provide a great deal of information about circuit sensitivities, emissions sources, board resonances and even the effectiveness of protection devices and current paths taken by ESD or Surge currents in a circuit. Identification of problems is especially difficult for "soft" failures where systems become upset due to an EMC event but there is no damage, arcing or other evidence to tell the engineer how the problem occurred. Compliance testing at commercial labs can be very time consuming and expensive, and when a test fails little or no information regarding the root cause of the failure is available. New scanning technologies can reduce the risk of problems during compliance testing and can help pin down root cause of both immunity and emissions failures when they do occur.

Biography: Michael has over 30 years of experience with EMC and ESD as an independent consultant, an employee of Thermo Fisher Scientific working with the KeyTek product lines, EM Test USA, and Amber Precision Instruments. He has worked closely with manufacturers and laboratories world-wide providing training, applications help, and assistance with the development of interpretation of test standards. He is the author of several papers and articles on ESD and other system level EMC phenomena and has participated in numerous national and international seminars as author, speaker, and panelist. Michael has served with several committees developing standards for industry including the IEC as a former working group convener, the ESD Association, IEEE, SAE and is a member of the U.S. Technical Advisory Group for EMC for the development and maintenance of basic EMC standards.

Reservations: To help us get an accurate headcount, please send an RSVP email to Harry Gaul (harry.gaul@ieee.org). There is no charge for meetings, but you pay for your own meal and drinks. 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.

Life Member Affinity Group



LESLIE “LES” L. DAVIET II, TREASURER
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REPORT TO THE FEBRUARY 05, 2013 PHOENIX SECTION EXECUTIVE COMMITTEE

1. ‘First FY2013 LMAG Administrative Meeting scheduled on February 12th at SRP Cross Cut Facility.
2. Three LMAG Technical Meetings planned in FY 2013. May, October, and December. Speakers and Topics to Be Determined.
3. An LMAG Administrative Meeting will be convened immediately following adjournment of each Technical Meeting.
4. LMAG 2012 Support Funds from the IEEE Phoenix Section of \$500.00 was received in January 2013.
5. LMAG formally requests the IEEE Phoenix Section for 2013 Support Funds in the amount of \$500.00 so that the non-meal expenses for the planned Technical Meetings are funded.
6. A primary focus of the LMAG during 2013 is to increase attendance at the Technical meetings by presenting interesting and unique topics and by extending member activity into the schools to encourage students to strongly consider engineering and science as a profession.
7. The 2013 LMAG Officers are:
 - Rao Thallum – Chairperson rao.thallum@srpnet.com
 - Barry Cummings—Immediate Past Chairperson abarrycummings@gmail.com
 - Michael Ebertin – Vice Chairperson Michael@ebertin.net
 - Tom Lundquist --- Secretary tom.lundquist@ieee.org
 - Les Daviet II --- Treasurer lesdaviatii@cs.com
 - Ron Sprague --- Program Chairperson r.sprague@ieee.com

Respectively Submitted

Les Daviet II, Treasurer
IEEE Phoenix Section Life Member Affinity Group

AFFINITY GROUP MEETING

The Meeting Scheduled for February 12 is cancelled.

Results of Election of Officers:

The vacant position for Chair has been filled by Rao Thallam.

The Program Chair is seeking suggestion from members for future technical presentations. Any ideas of interest are open for consideration. Please contact Ronald Sprague Program Chair at rlsprague@q.com or any officer with ideas.

About IEEE Phoenix Section Life Member Affinity Group:

The IEEE Phoenix Section Life Member 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. Elections are held at the December meeting.

Technical meeting topics and suggested speakers are encouraged. Contact any Officer.

Future Technical Meetings:

- Tuesday, May 14, 2013 SRP PERA CLUB
- Tuesday, October 15, 2013 SRP PERA CLUB
- Tuesday, December 3, 2013 SRP PERA CLUB

Officers:

Chair	Rao Thallam	Rao.Thallam@srpnet.com
Vice Chair	Michel Ebertin	Michel@ebertin.net
Secretary	Tom Lundquist	Tom.Lundquist@ieee.org
Treasurer	Leslie Daviet II	lesdaviatii@cs.com
Program Chair	Ronald L. Sprague, P.E.	rlsprague@q.com
Past Chair	A. Barry Cummings	Barry.Cummings@srpnet.com

Women in Engineering Affinity Group



IEEE Phoenix Section
Women in Engineering
Affinity Group



The IEEE Phoenix Section **Women in Engineering (WIE) Affinity Group (AG)** had a very successful year in 2012. We held four meetings with a variety of educational technical speakers and panels. Events were held at Arizona State University (ASU), Intel, and Salt River Project (SRP). Members of WIE also volunteered to work with junior high students at the Arizona Science Lab in June, November, and December. Finally, WIE supported a table at ASU's Engineering Career Exploration Night in September.

We would like to thank all our officers (listed below) for a great year. If you would be interested in helping to organize any of our activities or have suggestions for other activities or speakers for future events, please feel free to contact any of our Executive Committee members:

Chair: Shamala Chickamenahalli (Shamala.Chickamenahalli@intel.com)
Vice-Chair: Joy Harris (joyelle.j.harris@intel.com)
Secretary / Publicity: Diane Watkins (diane.watkins@srpnet.com)
Treasurer: Diane Smith (diane@web-oasis.com)
Web Master: Audrey Skidmore (ASkidmore@azmag.gov)
Membership: Lesley Polka (lesley.a.polka@intel.com)
Region 6 Liaison: Barbara McMinn (barbara.mcminn@aps.com)

If you would like to be added to our distribution list for further information about this and future events, please contact Diane Watkins (diane.watkins@srpnet.com).

The IEEE WIE Affinity Group's mission is to inspire, engage, encourage and empower IEEE women worldwide with a vision of creating a community of IEEE women and men innovating the world of tomorrow. More information about IEEE WIE can be found at: http://www.ieee.org/membership_services/membership/women/women_about.html.

Computer Society



Phoenix Chapter of the IEEE Computer Society February, 2013

News

- Our January 9th meeting featured Michèle Stuart, PI, JAG Investigations, speaking on the topic of the Internet and its perils and pitfalls. Her presentation was excellent and all feedback was positive. We may ask her back later in the year as her material is constantly updated.
- Our March meeting will be on the second Wednesday (March 13th) and will be at ITT Technical Institute, 5005 S Wendler Drive, Tempe, AZ. This location is directly east of the Fry's Electronics Store in Tempe.

Future Events

- March 13th (**date and location change**) – Chapter meeting, ITT Technical Institute, 5005 S Wendler Drive, Tempe, AZ; speaker TBD.

Chapter meeting dates for the remainder of 2013 are shown below so you can save the dates; all dates are Wednesdays and all meetings will be held at DeVry University unless announced otherwise:

- March 13th (at ITT-Tech)
- May 1st
- July 10th
- September 4th
- November 6th

Meetings start at 6:00 pm with networking and light refreshments followed by the presentation at 7:00 pm. DeVry University is located at 2149 W Dunlap Avenue, Phoenix.

Visit the CS Chapter website for the latest information: <http://ewh.ieee.org/r6/phoenix/compsociety/>.

For brief announcements regarding upcoming events we are also on Twitter: @IEEECS_PHX

If you would like to suggest a topic or speaker for any of our future meetings, please contact one of the chapter officers:

Jerry Crow (jerry.crow@computer.org)
Brad Morantz (bradscientist@ieee.org)
Audrey Skidmore (askidmore@computer.org)
Diane Smith (sdianesmith@computer.org)



Wave and Devices

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

Antennas and Propagation Society Meeting

Meeting Free & Open to Non-IEEE Members

5:00PM, Wednesday, March 20th, 2012

Arizona State University, Interdisciplinary Science and Technology Bldg. IV , Room 492

Characterization of Space Shuttle Ascent Debris Based on Radar Scattering and Ballistic Properties – Evolution of the NASA Debris Radar (NDR) System

Dr. Brian M Kent, APS Distinguished Lecturer, AFRL

Abstract

The NASA Debris Radar (NDR) system was developed to characterize debris liberated by the space shuttle (and any follow-on rocket system) during its ascent into space. Radar technology is well suited for characterizing shuttle ascent debris, and is especially valuable during night launches when optical sensors are severely degraded. The shuttle debris mission presents challenging radar requirements in terms of target detection and tracking, minimum detectable radar cross-section, calibration accuracy, power profile management, and operational readiness. The NDR system consists of stationary C-band radar located at Kennedy Space Center (KSC) and two X-band radars deployed to sea during shuttle missions. To better understand the signature of the shuttle stack, Xpatch calculations were generated at C and X band to predict the radar signature as a function of launch time. These calculations agreed very well with measured data later collected. Various sizes, shapes, and types of shuttle debris materials were characterized using static and dynamic radar measurements and ballistic coefficient calculations. The NDR success has led to a new challenge of processing and analyzing the large amount of radar data collected by the NDR systems and extracting information useful to the NASA debris community. Future applications for space situational awareness and space-lift applications will also be discussed.

Biography

Dr. Brian Kent is Chief Scientist, Sensors Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio. He serves as the directorate's principal scientific and technical adviser and primary authority for the technical content of the science and technology portfolio. He joined the Air Force Avionics Laboratory in 1976 as cooperative engineering student through Michigan State University. He began his career performing research in avionics, digital flight displays and radar signature measurements. Through a career broadening engineering assignment with the Directorate of Engineering, Aeronautical Systems Division, he modeled a number of foreign threat missile systems and performed offensive and defensive electronic combat systems assessments. He received a National Science Foundation Fellowship in 1979, working at both the Air Force Wright Aeronautical Laboratories and the Ohio State University Electroscience Laboratory until the completion of his doctorate. Dr. Kent spent two years in the Passive Observables Branch of the Avionics Laboratory, later transferring to the AFWAL Signature Technology Office. From 1985 to 1992, Dr. Kent was involved with classified research efforts, managed through the Air Force Wright Laboratory, now the AFRL. During his tenure with AFRL and its predecessor organizations, Dr. Kent held a variety of positions. Dr. Kent is also a Fellow of the IEEE.

Date: **Wednesday, Mar. 20th, 2013**

Location: [Arizona State University, Interdisciplinary Science and Technology Bldg. IV, Room 492](#)

Time: **5:00 PM Presentation, Pizza will be served following the Seminar**

For more information, contact:

Steve Rockwell (WAD Chapter Chair) (480) 241-9891
Vishwa Natarajan (WAD Publicity) (480) 552-1982

steve.rockwell@ieee.org
vishwanath.natarajan@intel.com

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

The Arizona Science Lab



THE ARIZONA SCIENCE LAB®

The IEEE "Arizona Science Lab" (ASL) was launched in February 2009. It is a volunteer group operating under the management of the IEEE, a 501(c)(3) organization, that engages retired and employed engineers, scientists and teachers, university students and other professionals in enhancing the STEM learning of grade 4 thru' 9 students, stimulating their interest in STEM subjects, and inspiring them to pursue studies and future careers in STEM subjects.

- ASL workshops are provided free of charge to all public and charter schools in Maricopa County and especially to State Grade "C" and "D" and Federal "non-AYP" and "Title 1" schools. The ASL is supported by the IEEE, Nina Mason Pulliam Charitable Trust, APS, Verizon, and the Tempe Elementary School District No. 3.
- The permanent location of the Arizona Science Lab is in the Meyer School Facility in Tempe!
- The teachers bring their grade 4 to 9 science class (up to 60 students) to the Arizona Science Lab for a full day immersion in a Science Workshop.
- Each Science Workshop, in a lab setting, is supported by expert volunteers who conduct a project-based lesson plan, complete with demonstrations, lecture, experiments, and a construction project in a single 3 - 4 hour session.
- Each Workshop is conducted by a group of retired, employed and university student engineers who are highly qualified in math, physics, computers, electronics, power generation & distribution, structures, thermal, chemistry, materials science, and computer software. Our instructional staff has years of real world application experience in the sciences. They relate the theory being taught to everyday applications.
- The teachers choose a Workshop from a list of ready-to-run Workshops that support the Common Core and Arizona Science Education Content Standards.
- ASL's rigorous Metrics Program, that includes guidance and support from two
- shows a 4 to 13% improvement in student STEM knowledge, understanding and motivation after each workshop.

Each Workshop emphasizes the WOW factor of hands-on construction projects and experiments!!!

**Rickie Currens,
Executive Director- Arizona Science Lab**

An Excellent article written about ASL from ASU.

http://www.wiete.com.au/journals/GJEE/Publish/current_issues.html

THE ARIZONA SCIENCE LAB®

Meyer School Facility, 2615 South Dorsey Ln, Tempe, AZ 85282-2799

www.arizonasciencelab.org

IEEE ASL MEMBER POSITION DESCRIPTION

The primary objective of the IEEE “Arizona Science Lab” program is to encourage grade 4 - 9 students to become interested in science, technology, engineering and math (STEM) and to pursue studies and a career in STEM, and to reverse the widely acknowledged continuous downward trend of the number of students opting for studies and careers in STEM. The secondary objective is to encourage retired engineers and scientists, employed engineers and scientists, retired teachers, university engineering students, and anyone with an interest in science and a practical aptitude to become engaged with the students and share their knowledge, expertise and passion for engineering and science with them.

To accomplish these two objectives ASL uses teams of 6 – 8 volunteers to put on fully provisioned project-based science lesson plans for grade 4 – 9 schools throughout the Phoenix metro area, in our facility in Tempe, with all the volunteers, equipment and supplies being provided at no cost to the teacher or school or students.

See some short videos at this link: http://www.azsciencelab.org/Videos_Photos.php

Position Description:

IEEE ASL Members are volunteers who provide academic and career support to grade 4 thru’ 9 students during one day Workshops in the IEEE “Arizona Science Lab.” Members teach students science and help them perform experiments and construct projects that reinforce the science they have been taught. Members advise students on studies and careers in science and engineering.

In each workshop there are two different positions available:

- **Teacher:** responsible for giving the lectures and running the demonstrations
- **Supporter:** responsible for working with the students on experiments and the construction projects

Qualifications & Responsibilities:

- Retired or employed engineer or scientist or teacher, or university engineering or science student, or anyone with an interest in science and an aptitude for hands-on activities
- Enthusiasm for science, technology, engineering and math (STEM)
- Desire to share knowledge and experience with grade 4 thru’ 9 students
- Desire to help students learn and enjoy science
- 1 year overall commitment preferred
- Commit one day in a week at least twice a month as a Workshop Teacher or Project Supporter
- Actively participate in IEEE ASL Group meetings to review program status, discuss issues and ideas, review lesson plans, etc.
- Complete Arizona State required criminal background check and Independently Verified Fingerprint (IVP) clearance (processing fee will be paid by IEEE ASL)

TISP/ASL Provided Training and Orientation:

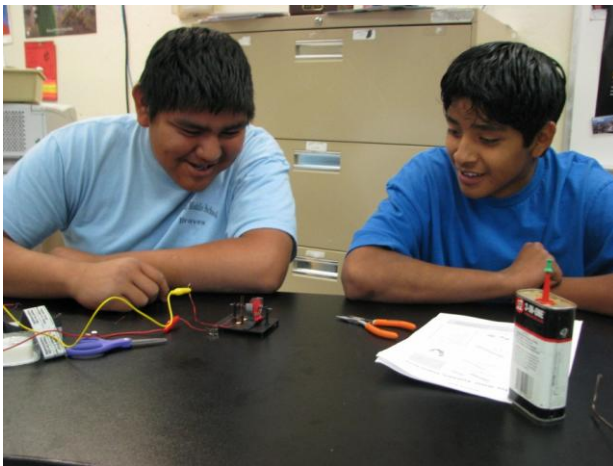
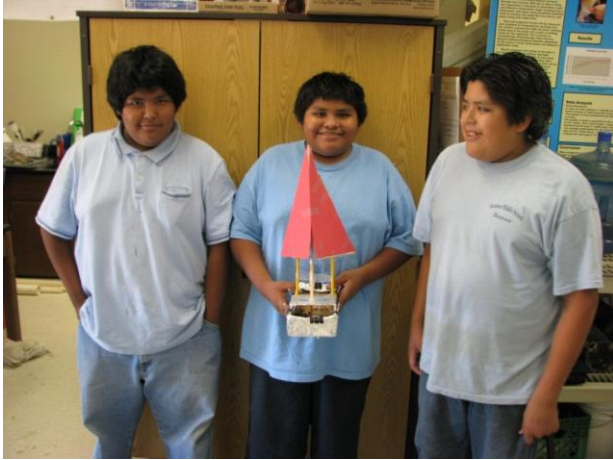
- Understand how IEEE ASL operates
- Deepen your teaching skills
- Expand your tutoring and support techniques
- Increase your sensitivity to different cultures and age groups

Benefits:

- Access to free trainings and workshops
- Opportunity to make a difference in a child’s life and in your community

- Share the excitement and "Wow Factor" the students have when they complete and test their project
- Be a small part of helping create a better world for tomorrow — students will remember these workshops and your help and advice for a very long time!

The “Wow!” Factor In The IEEE ASL Lessons



Contact Information:

Michel Ebertin ASL Director of Volunteer Recruitment
Stuart Wecker ASL Executive Director

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An Excellent article written about ASL from ASU.

http://www.wiete.com.au/journals/GJEE/Publish/current_issues.html

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**“Helping Students Transfer
What Is Learned In The
Classroom To The World Beyond”**

2013 IEEE Phoenix Section Calendar



The calendar is updated by the Vice Chair on a rolling basis.
TBD

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
Chuck Weitzel, 480 292-0531 c.weitzel@ieee.org

February 2013

- Annual Banquet: February 9, 2013
 - At the Phoenix Airport Hilton
- Budget planning: Chapters and Affinity Groups
- Deadline for submission of L-50 reports to receive the 10% bonus:
February 15th
- Region 6 meeting: Feb 1-3, 2013, Las Vegas, NV
- Chapter/Affinity Group participation in E-Week at Az Science Center Feb 23, 2013



Executive Committee Meeting

Phoenix Section

Tuesday, February 5, 2013, 6:00PM – 8:00 PM

[Hilton Phoenix Airport](#)

[2435 South 47th Street, Phoenix, AZ 85034](#)

Please attend this month's Executive Committee meeting (click on link above for map). In addition please send a brief report by e-mail to Secretary Bruce Ladewig, bruceladewig@ieee.org and [myself](#) before Tuesday. If you should be unable to attend this time please arrange for coverage, such as attendance by the Vice Chair. The agenda for the meeting is below.

Regards,

Chuck Weitzel Chair, IEEE Phoenix Section

Agenda

- Chair Report
- Section Officer Reports
 - Vice Chair – Barbara McMinn: Calendar of Activities
 - Secretary – Bruce Ladewig: Meeting Minutes
 - January Meeting Minutes
 - Treasurer – Surinder Tuli: Monthly report
 - Monthly Report
 - Proposed Section Budget for 2013
 - Past Chair – Ralph Hogan
- Society Chapter and Affinity Group Reports
 - Components, Packaging and Manufacturing Technology (CPMT) – Vasu Atluri
 - Computer Society (CS) – Jerry Crow
 - Education Society (EdSoc) – Martin Reisslein
 - Electromagnetic Compatibility (EMC) – Harry Gaul
 - Engineering in Medicine and Biology Society (EMBS) – TBD
 - Graduates of the Last Decade (GOLD) – Chaturvedi Gogineni
 - Life Members Affinity Group (LMAG) – Barry Cummings
 - Power & Energy Society (PES) – Kory Hedman
 - Signal Processing & Communications (SP/Com) – Pavan Turaga <pturaga@asu.edu>
 - Solid State Circuits Society (SSCS) – Cyndi Recker
 - Waves & Devices (WAD) – Steve Rockwell
 - Women in Engineering (WIE) - Shamala Chickamenahalli
- Student Branch Reports [Advisor]
 - Student Activities Chair – Diane Smith
 - ASU Main, Engineering – Ahmet Cemal Durgun
 - ASU Main, Computer Society – Nicholas Vaidyanathan [Guoliang Xue]
 - ASU Polytechnic – TBD [TBD]
 - DeVry, Phoenix – Diane Smith
 - DeVry, Computer Society – Lori Renaldi

SMART Competition opens for high school students

News and Updates

October 19, 2012



Contact Michael Andrews
m.andrews@smartcompetition.org
(602) 682-5440

SMART Competition opens for high school students

The SMART Competition (www.smartcompetition.org) is a STEM and Career and Technology Education (CTE) education program that provides high school students with a practical real-world design challenge that addressed the smart grid, intelligent building design, energy efficiency, localized power generation and green buildings. The students create an innovative solution to a design problem faced by technical professionals everyday as they try to make schools function more efficiently.

According to Mark Schneider, Director of Bentley Systems and co-chair of the SMART design team, *"The competition is an ideal opportunity for students, either in the classroom or in informal learning environments to get hands-on practical experience in engineering design, building information modeling, energy analysis and intelligent design using software tools used by engineering professionals."*

The SMART Competition is a new high school STEM education program designed to challenge students to develop solutions to a real-world campus redesign project. The solution will include elements of localized power generation, the smart grid, power distribution and delivery, electric vehicles, architecture, the environment, community, livability and sustainable technology. The ultimate goal of the program is to create student interest in pursuing STEM related careers, higher education and university studies in a variety of technical disciplines.

As part of the competition, students use commercial software design tools and a global technical support infrastructure. The Competition, by promoting intellectual investigation, promotes academic achievement, career preparation, teamwork and other 21st century skills essential for in-demand occupations within high-growth industry sectors. The computer design and simulation skills give students with the capability to work for engineering and design firms while in school or immediately following graduation.

The competition is open to all high school students who attend public, private, parochial, charter and home-based schools or participate in informal education programs. The competition is designed to attract all students without regard or bias of gender, race, socio-economic or academic performance level.

For additional information, contact Mike Andrews, m.andrews@smartcompetition.org

ASU Eta Kappa Nu Chapter Hosts Leadership Conference

March 15 – 16, 2013

The Epsilon Beta Chapter of IEEE-Eta Kappa Nu at Arizona State University will be the host Chapter of the 2013 Student Leadership Conference. The Conference will be held on the ASU campus on the 15th and 16 of March. The Conference is free to all current IEEE-Eta Kappa Nu Students to attend. Registration and additional information can be found at www.hkn.org.

On Saturday, March 16th from 3-5PM, IEEE Spectrum will present a “**Dream Jobs panel session**” on what the future holds for today's engineering students. All IEEE student members are invited to attend this special session. Registration required: info@hkn.org

IEEE Spectrum's annual Dream Jobs issue highlights 10 technologists who have jumped off a career path, made a change in direction, or took advantage of a stroke of luck to land their dream jobs. These range from a hacker for humanity, surgical robot designer or dive computer maker. IEEE-HKN is excited to offer an opportunity to hear these cutting edge engineers share their ideas and secrets for success.

IEEE members and HKN Alumni are invited to attend these events held during the Conference:

Keynote Address by Moshe Kam, Past President IEEE and HKN Alumni
8am breakfast and address: \$20 per person

Luncheon ,Speaker: David Alan Grier, President, IEEE Computer Society

12:15– 1:45 lunch: \$ 50 per person

Alumni Reception and Dinner, Speaker: TBA

6 – 9pm reception and dinner: \$85 per person

Register at www.hkn.org Alumni Conference Registration

Interested in sponsoring this event? Contact: asuhkn@gmail.com

Greater Phoenix Area - EWeek Phoenix

February 17-23, 2013 has been designated Engineers Week 2013. Engineers Week is an exciting time for engineers and scientists across the country. Engineers get involved with their communities via national, regional and local programs, carrying on a tradition that began in 1952.

This is an exciting time for engineers who celebrate the positive contributions made to society. Engineers use their imagination and analytical skills to invent, design, and build things that matter. They are team players with independent minds who turn ideas into reality. Many become licensed professional engineers in order to better protect the health, safety, and welfare of the public. By dreaming up creative and practical solutions, engineers are changing the world all the time.

Everything around us and that we use every day has been engineered in some way, yet we may not see the engineers behind the scenes or know much about engineering. The engineering field is as varied as engineers themselves. Engineers can design and build superstructures or delicate medical instruments and are exploring for energy and new worlds in space. They are designing environmental controls, directing global companies and responsible for tomorrows cars and computers. Who knows where the next great challenges will be?

For information about Science and Engineering activities check out:

<http://eweek-phx.org/>

<http://www.eweek.org/Home.aspx>

<http://azscitechfest.org/azscitechfest>

IEEE Membership Grade Advancement

IEEE Phoenix Section Executive Committee encourages all to apply for advancement in membership grade to Senior Member and Fellow Grade. Please review the requirements at www.ieee.org. Please contact IEEE Phoenix Section Membership Development Chair, Dr. Vasudeva P. Atluri, at vpatluri@ieee.org for additional information.

Enhanced Senior Member Application Launched

Effective 29 July 2011, IEEE Admission and Advancement launched a [new Senior Member Application](#). The new application includes numerous enhancements, based on feedback from volunteers and members, including:

- New user friendly format / design
- Secure environment (need IEEE Web account)
- Ability to save application in “draft” form
- Ability to upload resume or Curriculum Vitae (up to 3 MB)
- Applicant can view application online
- Applicant can view status of requested reference forms
- References will be notified by email to provide applicant reference
- References will have the ability to view their completed reference form(s)
- Real time application status

The goal is to provide prospective Senior Members with an easy to use and intuitive interface, while streamlining internal operations at the same time. [View the new Senior Member application](#).

IEEE-USA Government Fellowships:

2013-2014 IEEE-USA Government Fellowships

Each year, IEEE-USA sponsors three qualified IEEE members to serve as government fellows: one Engineering & Diplomacy Fellow and two Congressional fellows. The fellows spend a year in Washington – from September to August each year – serving as advisers to the U.S. Congress or key U.S. Department of State decision-makers. IEEE-USA's Government Fellowships link engineers with government, providing a mechanism for IEEE-USA members to learn firsthand about the public policy process through personal involvement.

The congressional fellowship consists of an appointment to the personal staff of a U.S. Senator or Congressman, or to the professional staff of a Congressional Committee. For an application Kit for the 2013-2014 Congressional Fellowship Program, visit: <http://ieeusa.org/policy/govfel/congfel.asp>

The State Department fellowship offers an opportunity for an engineer to provide technical expertise to the State Department, and help raise awareness of the value of engineering input while learning about and contributing to the foreign policy process. For an application Kit for the 2013-2014 Engineering & Diplomacy (State Department) Fellowship Program, visit:

<http://ieeusa.org/policy/govfel/state.asp>

The postmark application deadline for 2013-2014 Fellowships is 8 February 2013. For more information, visit: <http://ieeusa.org/policy/govfel/congfel.asp>

Phoenix Section LinkedIn Group

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



Only OFC/NFOEC 2013 takes you beyond the technology

Go beyond the latest research. Staying ahead in your field—telecom, datacom, computing or any optical communications field—means staying on top of the technical breakthroughs and understanding how they apply to business practices of the future.

The only place you'll find so comprehensive a program is at the OFC/NFOEC Technical Conference, 17 – 21 March 2013 in Anaheim, California.

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- Investigate ways to enhance efficiency, productivity and profitability for your business, both now and looking ahead
- Discover the most [cutting-edge applications](#) of optical technology on the market now—and coming to future markets
- Access extensive [business programming](#) on the show floor

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- [Category 3. FTTx Technologies, Deployment, and Applications](#)
- [Category 5. Fibers and Optical Propagation Effects](#)
- [Category 6. Fiber and Waveguide-Based Devices: Amplifiers, Lasers, Sensors, and Performance Monitors](#)
- [Category 7. Optical Devices for Switching, Filtering, and Interconnects](#)
- [Category 8. Optoelectronic Devices](#)
- [Category 9. Digital Transmission Systems](#)
- [Category 10. Transmission Subsystems and Network Elements](#)
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- **OFC/NFOEC is a must to attend event for scientists and engineers working in the field. It is a remarkable experience with a great outlook on the state and the future of the technology.**, *Alexei, Pilipetskii*
- **Why would you be in the optical business and not attend this show?**, *Mike Freiburger, Verizon*
- **This is definitely the most important conference in the field. The industry presence ensures that cutting edge**

direction the field is progressing., Kumar Appaiah, The University of Texas at Austin

- **Hands down, the best conference to attend as a student.**, Cathy Chen, Columbia University
- **OFCNFOEC is THE conference in the telecommunications/Datacommunications industry. It is a forum where the components vendors, equipment manufacturers, and service providers all get together to share knowledge and experience for the betterment of the entire communications ecosystem. We cannot do without an event like OFCNFOEC.**, Stevan Plote, Tellabs

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