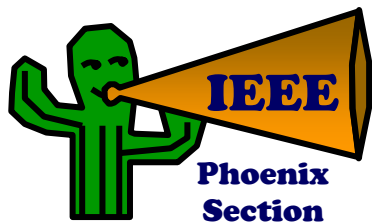


# The Valley Megaphone

Newsletter of the  
**Institute of Electrical and  
Electronics Engineers, Inc.,  
Phoenix Section**  
December 2012,  
Volume XXVI, Number 12



## Executive Committee 2012

### Chair

Ralph Hogan, 480-774-8227  
[rhogan@ieee.org](mailto:rhogan@ieee.org)

### Vice Chair

Charles Weitzel, 480-292-0531  
[c.weitzel@ieee.org](mailto:c.weitzel@ieee.org)

### Secretary

Barbara McMinn 602-371-6383  
[barbara.mcminn@aps.com](mailto:barbara.mcminn@aps.com)

### Treasurer

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### Past Chair

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480-227-8411  
[vpatluri@ieee.org](mailto:vpatluri@ieee.org)

### Student Activities

S.Diane Smith  
602-749-4601  
[sdianesmith@computer.org](mailto:sdianesmith@computer.org)

### Conferences

Guoliang Xue  
480-965-6218  
[xue@asu.edu](mailto:xue@asu.edu)

### Awards

Vasudeva P. Atluri  
480-227-8411  
[vpatluri@ieee.org](mailto:vpatluri@ieee.org)

### Inter-Society

Mike Andrews, 480-991-1619  
[m.andrews@ieee.org](mailto:m.andrews@ieee.org)

### Webmaster

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[kbharath@ieee.org](mailto:kbharath@ieee.org)

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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](mailto:surinder.tuli@gmail.com) and to Russ Kinner at [r.kinner@ieee.org](mailto: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  
TBD

[pturaga@asu.edu](mailto:pturaga@asu.edu)

### Computer Society

Jerry Crow

[jerry.crow@computer.org](mailto:jerry.crow@computer.org)

### CPMT Society

Vasudeva P. Atluri  
480-227-8411

[vpatluri@ieee.org](mailto:vpatluri@ieee.org)

### Education Chapter

Martin Reisslein, 480-965-8593

[reisslein@asu.edu](mailto:reisslein@asu.edu)

### EMBS Chapter

TBD

### EMC Society

Harry Gaul, 480-441-5321

[harry.gaul@ieee.org](mailto:harry.gaul@ieee.org)

### GOLD

Chaturvedi Gogineni

[cgoginen@asu.edu](mailto:cogoginen@asu.edu)

### Power & Energy Society

Scott Freymuller 480-991-9191

[scott@youngpower.com](mailto:scott@youngpower.com)

### Solid State Circuits

Mohamed Arafa

[mohamed.arafa@ieee.org](mailto:mohamed.arafa@ieee.org)

### Teacher-In-Service

Rickie Currens

[Rickie.Currens@att.net](mailto:Rickie.Currens@att.net)

### Waves & Devices Society

Steve Rockwell

[steve.rockwell@ieee.org](mailto:steve.rockwell@ieee.org)

### Life Members

Barry Cummings

[abarrycummings@gmail.com](mailto:abarrycummings@gmail.com)

### Women In Engineering

Shamala Chickamenahalli

[shamala.chickamenahalli@intel.com](mailto: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](mailto:sdianesmith@computer.org)  
Student Activities Chair

## Student Branches

**ASU Main, Engineering**  
Chair: Ahmet Durgun,  
480-371-7743, [adurgun@asu.edu](mailto:adurgun@asu.edu)  
Advisor: Cihan Tepedelenlioglu,  
480-965-6623, [cihan@asu.edu](mailto:cihan@asu.edu)

**ASU Main, Computer Society**  
Chair: TBD  
Advisor: Guoliang Xue  
480-965-6218, [xue@asu.edu](mailto:xue@asu.edu)

**ASU Polytechnic**  
Chair: TBD  
Advisor: TBD

**DeVry, Phoenix**  
Chair: Donovan Benedict  
[Don4ben5@gmail.com](mailto:Don4ben5@gmail.com)  
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: TBD  
Advisor: Niranjana Venkatraman  
[v.niranjana@ieee.org](mailto:v.niranjana@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 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](mailto: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-PHOENIX Section Scholarships**



# **IEEE**

## **IEEE Phoenix Section Scholarships**

- In 2013 the IEEE Phoenix Section will award \$1000 scholarships to three qualified applicants.
- Detailed information and the scholarship application form can be found at <http://ewh.ieee.org/r6/phoenix/Scholarships.htm>
- Application deadline is January 13, 2013

**Dr S. Diane Smith**  
**IEEE Phoenix Section**  
**Student Activities Chair**  
**[sdianesmith@computer.org](mailto:sdianesmith@computer.org)**



# IEEE

## Phoenix Section Student Paper Contest

- Undergraduate students can win cash prizes and top entrants are eligible to present their paper at the IEEE Region 6 Southwest Area later in Spring 2013 .
- Detailed information can be found at <http://ewh.ieee.org/r6/phoenix/StudentPaper.htm>

**The submission deadline is  
March 2, 2013**

**Dr S. Diane Smith  
IEEE Phoenix Section  
Student Activities Chair  
[sdianesmith@computer.org](mailto:sdianesmith@computer.org)**

# Signal Processing & Communications Society

Phoenix Chapter of IEEE Signal Processing Society and  
Communications Society



Upcoming events

***New Updates coming soon***

## 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](mailto:vpatluri@ieee.org).

## Power & Energy Society



IEEE Power and Energy Society

Phoenix Chapter

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



- *There is no luncheon for December. We will resume our monthly luncheons in January, 2013.*
- 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.
- We are pleased to announce that our Chapter sponsored a \$1000 electrical engineering scholarship, which was awarded by the IEEE Phoenix Section in February. The deadline for the next round of scholarships is January 2013. For more details, visit <http://www.ewh.ieee.org/r6/phoenix/Scholarships.htm>.
- Want to know more about IEEE Power and Energy Society? Watch this video:
  - [http://www.youtube.com/watch?v=BRKM4lpo\\_tk](http://www.youtube.com/watch?v=BRKM4lpo_tk)
  - More videos are available at:  
<http://ieee-pes.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](http://www.ieee.org/membership_services/membership/senior/index.html)

## **Solid State Circuits Society**



INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS



### **Solid State Circuits Society --Phoenix Chapter MICRO-POWER DATA CONVERTERS December 17**

#### **Gabor C. Temes Professor, Oregon State University**

Micro-power interfaces are needed in many applications, including portable devices powered by batteries or scavenged energy. Hearing aids, EKG, EEG and other biomedical devices, image sensors are just some of the important application areas. The changed trade-off between power and other performance parameters requires a change in design philosophy, and leads to the use of different algorithms and architectures for the embedded data converters in these interfaces. In this lecture, an overview of available design techniques for both micro-power DACs and ADCs will be given, with emphasis on converters specially useful in such applications.

These talks are co-sponsored with ASU Connection One

SSCS-PHX Chapter Website: [http://www.ieee.org/go/sscs\\_phx](http://www.ieee.org/go/sscs_phx)

Contact: Cyndi Recker (cyndi.recker@ieee.org), SSCS-PHX Chapter Chair



# **EMC Society**



## **Technical Meeting**

### **Announcement on Printed Circuit**

### **Board EMC Design Review**

***New Updates coming soon***

## Life Member Affinity Group



### Technical Meeting December 4, 2012

#### Topic:

**"When it comes to Solar Modules, Bigger can be Better"**

#### Presenter - Shields Thomas Fair

Presenter Bio: Applications and Design Engineer for Motorola Semiconductor Products in Phoenix AZ, 1963-1969. Manager, Dickson Electronics Maquiladora assembly facility, Agua Prieta, Sonora Mexico 1970 – 1972, 600 employees. Founder / President, Aztek Inc. maquiladora factory, Agua Prieta, Sonora Mexico, 1973-1986, 400+ employees, manufacturing and assembling electronic subassemblies for US and Canadian companies. 1980 – 1986, Founder / President, MEXSAT, sa de C.V., with offices in the major cities in Mexico. Had first license in Mexico to "design, manufacture, sell and install SATELLITE TELEVISION equipment in the country". 1986- 1994, Consultant to Fortune 500 companies: Motorola, Siemens, 3-M, Levolor, others, setting up manufacturing facilities for them "off shore". 1995 to date, manufacturing consultant, design engineering, entrepreneur.

**When:** Tuesday, December 4, 2012, 11:00am – 1:00pm, Registration fee is \$15. This fee will include lunch provided by the PERA Club.

### AFFINITY GROUP MEETING

#### Election of Officers

**Please provide a nomination for any office if you or your nominee is willing to serve.**

#### Nominated Candidates at this time are:

Chair: No nominee at this time

Vice Chair: Michel Ebertin

Secretary: Tom Lundquist

Treasurer: Leslie Daviet II

Program Chair: Ronald L. Sprague, P.E.

**Where:** SRP's **PERA Club** Bighorn Room,  
1 East Continental Drive, Tempe, AZ  
West of 68th St., ½ mile south of McDowell Road

**RSVP:** Please respond to Program Chair, Ronald Sprague by email:  
[rsprague@q.com](mailto:rsprague@q.com) (Q.com) at least 5 days before the meeting.

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 [rsprague@q.com](mailto:rsprague@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](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, December 4, 2012 SRP PERA CLUB
- Tuesday, February 12, 2013 SRP PERA CLUB
- Tuesday, May 14, 2013 SRP PERA CLUB
- Tuesday, October 15, 2013 SRP PERA CLUB
- Tuesday, December 3, 2013 SRP PERA CLUB

**Officers:**

Chair	A. Barry Cummings	<a href="mailto:Barry.Cummings@srpnet.com">Barry.Cummings@srpnet.com</a>
Vice Chair	Michel Ebertin	<a href="mailto:Michel@ebertin.net">Michel@ebertin.net</a>
Secretary	Tom Lundquist	Tom.Lundquist@ieee.org
Treasurer	Leslie Daviet II	<a href="mailto:lesdaviatii@cs.com">lesdaviatii@cs.com</a>
Program Chair	Ronald L. Sprague, P.E.	<a href="mailto:rlsprague@q.com">rlsprague@q.com</a>
Past Chair	C Bruce Johnson	<a href="mailto:cbjsg@q.com">cbjsg@q.com</a>

## Women in Engineering Affinity Group



IEEE Phoenix Section  
Women in Engineering  
Affinity Group



The IEEE Phoenix Section **Women in Engineering (WIE) Affinity Group (AG)** is planning an event for Monday, December 3<sup>rd</sup>. LeeAnn Torkelson, Principle Engineer in the Transmission Analysis department at Salt River Project, will be speaking on the process for planning high-voltage electric transmission lines in Arizona. The event is free, and all interested parties are welcome to attend. The event will be held at SRP's main building (1521 N. Project Drive, Tempe 85281) from 5:30 pm to 7:00 pm. Light refreshments will be provided.

On December 6<sup>th</sup>, **WIE** will be supporting the Arizona Science Lab (ASL) by volunteering to help students in grades 4 through 9 learn about rockets. The ASL was founded in February 2009 as a non-profit volunteer group managed by the IEEE. More information about ASL can be found on their website at [www.azsciencelab.org](http://www.azsciencelab.org). If you are interested in volunteering from 8:30 am – 1:00 pm, please contact Shamala Chickamenahalli (email below). 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](mailto:diane.watkins@srpnet.com)).

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

# Computer Society



**December, 2012**

## News

- The chapter meeting on November 14<sup>th</sup> featured Dr. Gil Speyer who presented an excellent – and very technical – presentation about graphical processing units. The subject was well covered from a historical standpoint and included information about contemporary devices.
- Chapter elections for officer positions for 2013 were held at the chapter meeting on November 14<sup>th</sup>. Having received no input from the membership regarding possible interest in officer or volunteer positions for 2013, the chapter decided to re-affirm the existing officer positions for one more year. The chapter officers for 2013 will be
  - Chair: Jerry Crow
  - Vice-chair: Brad Morantz
  - Secretary: Audrey Skidmore
  - Treasurer: Diane Smith
- Our annual chapter picnic was held on Saturday, November 17<sup>th</sup>. Attendance was very low, but those who attended had a great time. We will survey the membership to see if having an annual picnic is a viable activity for the future.

## Future Events

- January 9, 2013 – Chapter meeting, DeVry University, speaker Michèle Stuart, PI, JAG Investigations, Internet Evidence searching.
- March 6, 2013 – Chapter meeting, DeVry University, speaker TBD.

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](mailto:jerry.crow@computer.org))  
Brad Morantz ([bradscientist@ieee.org](mailto:bradscientist@ieee.org))  
Audrey Skidmore ([askidmore@computer.org](mailto:askidmore@computer.org))  
Diane Smith ([sdianesmith@computer.org](mailto:sdianesmith@computer.org))



## Wave and Devices



INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

**WAVES AND DEVICES** - Phoenix Chapter **IEEE**

*New Updates coming soon*

## 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](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](http://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](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

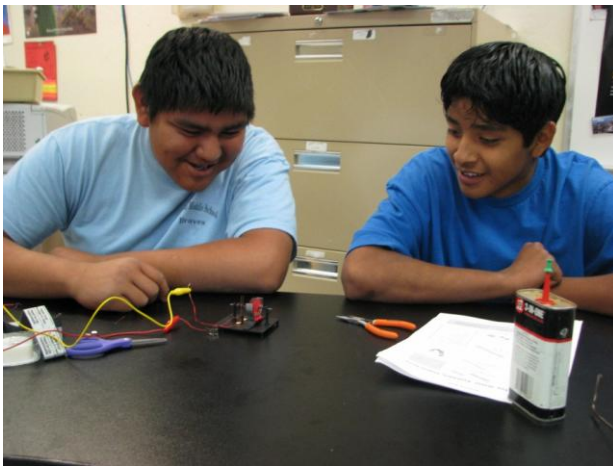
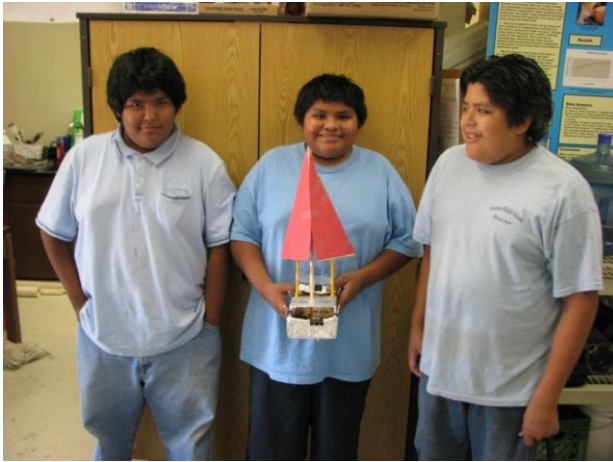
### Benefits:

- 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

[mebertin@azsciencelab.org](mailto:mebertin@azsciencelab.org)  
[swecker@azsciencelab.org](mailto:swecker@azsciencelab.org)

**An Excellent article written about ASL from ASU.**

[http://www.wiete.com.au/journals/GJEE/Publish/current\\_issues.html](http://www.wiete.com.au/journals/GJEE/Publish/current_issues.html)

Vol.14, No.3, 2012



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

# 2012 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  
Charles Weitzel, 480-292-0531 [c.weitzel@ieee.org](mailto:c.weitzel@ieee.org)

## **December 2012**

- o Report of Section activities for 2012
- o Appoint chairs of Section committees
- o Student Scholarship applications due: January 13, 2013
- o Section Award Nominations due: January 13, 2013
- o Annual Banquet: Finalize speaker
- o Annual Banquet: E-mail program



## Executive Committee Meeting

### Phoenix Section

**Venue:** Phoenix Airport Hilton 2435 S 47th St, Phoenix, AZ, 85034  
([map](#))

Tel.: 480-804-6017

**More Info:** Meetings are held on the first Tuesday of the month, 6–8 PM.

All interested IEEE members are welcome to attend.

**Contact: Ralph Hogan, 480-774-8227** [rhogan@ieee.org](mailto:rhogan@ieee.org)

#### Agenda

- **Election of Section Officers -- Deferred from November meeting**
- Section Officer Reports
  - Vice Chair – Chuck Weitzel: Calendar of Activities
  - Secretary – Barbara McMinn: Meeting Minutes
    - October Meeting Minutes
  - Treasurer – Bruce Ladewig : Monthly report
    - October Monthly Report
    - Proposed Section Budget for 2013
  - Past Chair – Jim Hudson
- 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
  - Embry Riddle – James Fernando [John E. Post]

- NAU, Engineering – Kenji R. Yamamoto [Niranjan Venkatraman]
- NAU, Computer Society – TBD [TBD]
- Standing Committee Reports
  - Awards – Vasu Atluri
  - Inter-Society – Mike Andrews
  - Professional Activities Committees for Engineers (PACE) – Russell Kinner
  - Membership – Vasu Atluri
  - Phoenix Conferences – Guoliang Xue
  - Publicity – Surinder Tuli
  - Teacher In-Service Program – Rickie Currens
  - Arizona Science Lab --
  - Web – Krishna Bharathkrishna
- New Business
- Adjourn

# SMART Competition opens for high school students

## News and Updates

October 19, 2012



Contact Michael Andrews  
[m.andrews@smartcompetition.org](mailto:m.andrews@smartcompetition.org)  
(602) 682-5440

### SMART Competition opens for high school students

The SMART Competition ([www.smartcompetition.org](http://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 21<sup>st</sup> 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](mailto:m.andrews@smartcompetition.org)



## 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](http://www.ieee.org). Please contact IEEE Phoenix Section Membership Development Chair, Dr. Vasudeva P. Atluri, at [vpatluri@ieee.org](mailto:vpatluri@ieee.org) for additional information.

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### 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](#).

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## IEEE USA E Book on Transition

### IEEE-USA E-Book E-Books to Members in September and October Feature Career Survival and Writing for Success:

IEEE-USA is offering two free e-books to IEEE members the next two months as a special benefit of IEEE membership. In September members can receive “The Best of IEEE-USA Today’s Engineer on Career Survival.” In October, the free featured publication will be “Writing for Success -- An Engineer’s Guide, Volume 1: Designing for Success.” “The Best of Today’s Engineer on Career Survival” is a compilation of career-focused articles from “IEEE-USA Today’s Engineer” that can help you find success in a challenging job market. We all need the ability to survive in a changing world, and engineers need a better awareness about the evolving business ecosystem and what those changes mean. The articles in this e-book will help to increase your situational awareness of the marketplace, which in turn, can help you with career planning and developing sustainable job skills. You’ll also learn how to assess the market and yourself, how to stay competitive, and what steps to take to thrive in the job market. “The Best of Today’s Engineer on Career Survival” can be downloaded at <http://www.ieeeusa.org/communications/ebooks/files/wisao2sf/Best-of-TE-On-Career-Survival-V1.pdf> for free to IEEE members. The nonmember price is \$5.99. The purpose of “Writing for Success -- An Engineer’s Guide, Volume 1: Designing for Success” is to inspire and help engineers to approach their writing tasks with the same confidence and skill they take to the technical problems that confront them -- so that emails, reports, test-plans, and other documents they write are as useful, successful and valued as their engineering efforts. “Writing for Success – An Engineer’s Guide, Volume 1: Designing for Success” will be available for members to download in October.

## **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://ieeeusa.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://ieeeusa.org/policy/govfel/state.asp>

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

## Phoenix Section Annual Banquet 2013

IEEE Phoenix Section Annual Banquet 2013 IEEE Phoenix Section is holding an Annual Banquet on Saturday, February 9th, 2013, from 6:00 PM to 10:00 PM at Hilton Phoenix Arizona Grand Ballroom located at 2435 S. 47th Street, Phoenix, Arizona – 85034 (Tel: 480-894-1600). The focus of annual banquet is to 1. Showcase IEEE and Phoenix Section Activities, 2. Provide a forum for member networking, 3. Recognize contributions of members, non-members, faculty, students, and corporations by presenting awards and 4. Acknowledge the work of section officers and volunteers.

The scope and purpose of the Section Awards program is to plan, promote and implement award and recognition programs that recognize outstanding performance in furthering the objectives and professional aims of the IEEE Phoenix Section, the IEEE and the IEEE-USA, and to stimulate others to pursue such achievements of excellence. All members are encouraged to block their calendars to attend the annual banquet to be held on Saturday, February 9th, 2013.

Guests and non-members are also encouraged to attend. Nominate peers and others for recognition at the annual banquet by accessing nomination forms and student scholarship applications at

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

. Access banquet registration forms at the website.

For additional questions and inquiries, contact Dr. Vasudeva P. Atluri, Annual Banquet 2013 Chair, at (480) 227-8411 (Cell) and by email at [vpatluri@ieee.org](mailto:vpatluri@ieee.org)

or Dr. Charles E. Weitzel, Annual Banquet 2013 Vice Chair, at (480) 292-0531 (Cell) and by email at [c.weitzel@ieee.org](mailto:c.weitzel@ieee.org)

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## 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.

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## Faculty opening at Embry-Riddle

Electrical Engineering faculty opening at Embry-Riddle, Prescott. For more information, search available positions at Prescott at [www.erau.edu/jobs](http://www.erau.edu/jobs) or contact Dr. Ed Post at [postj@erau.edu](mailto:postj@erau.edu).