

The Valley Megaphone

Newsletter of the
Institute of Electrical and
Electronics Engineers, Inc.,
Phoenix Section
December 2009,
Volume XXIII, Number 12



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IEEE Phoenix Section Executive Committee meeting minutes can be found at:
<http://www.ieee.org/phoenix>

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U – News

(for Student Members)

STANDARDIZING THE ANNUAL STUDENT BRANCH ACTIVITIES !

Much in the same way Professors go through an annual cycle of new students, there is a cycle of the annual Student Branch related activities and requirements to start or remain an IEEE Student Branch.

Student Branch Officers have the opportunity to showcase their organizational and professional skills to the IEEE Executive Committee, however, it is critical to communicate monthly on these achievements.

Facility tours are an excellent opportunity for students and this standardized listing of Companies and Contacts is being compiled to schedule annual tours and the IEEE Exec Committee is giving inputs.

- * Embry-Riddle completed tour at Boeing, ASU Flex and Ditron with Luncheon sponsored by Premier Semiconductor Services.
- * IEEE IECON / ICELIE are being held Nov 2010 in Glendale, AZ and organizing committee has requested Student Branch support.
- * Scholarship Applications and Student Paper Contest Forms are being updated and will be sent out for participation by Students !

This U-News Page, initiated last year, will continue to serve as the focal point for communications related to Student Branch Activity. The Section Committee is always looking for student recommendations for various improvements and support in expanding student memberships.

Regards,

Nick Leonardi, Student Activities Chair

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Student Branches

ASU Main, Engineering
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Chair: TBD
Advisor: Diane Smith
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Advisor: Diane Smith
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U - Newsbytes

See the Section Web site for updated forms for both the Student Paper Contest and Scholarships <http://www.ewh.ieee.org/r6/phoenix/index.htm>, use the links on this page to view the forms.

Criteria for applying includes the following:

- For full-time undergraduates who are members of IEEE: approved majors are Electrical Engineering, Computer Systems Engineering, Electrical Engineering Technology, Computer Engineering Technology, or Computer Science
- Must attend a university in the Phoenix Section during 2008-2009 (*i.e.*, ASU, ASU Polytechnique, DeVry, Embry-Riddle, or NAU)



IEEE EMC Society, Phoenix Chapter Next Meeting



Date: Wednesday, January 20th, 2010
Place: Garcia's Mexican Restaurant at Embassy Suites Hotel
Address: 4400 South Rural Road, Tempe, Arizona,
Just South of U.S. 60 on West side of Rural Rd.
Time: 5:30PM Social, 6PM Dinner (order off the menu), 7PM Meeting
Title: Platform Interference in Wireless Systems
Speaker: Kevin Slattery, Intel, Manager for Advanced Signaling and Interference Technologies

Abstract: With the advent of mobile computing, wireless communication has become an integral part of the compute platform. Who would now consider buying a laptop without wireless? At the same time, what were once simple communication devices such as cell phones are now adding functions which require subsystems ordinarily associated with compute devices. So what's the big deal? The problem is these devices were never intended to coexist. Communications devices have not been designed with high speed digital logic in mind. High Speed digital logic has never included communications as a design vector. The end result is that these devices don't work well together and much shoehorning is currently undertaken to make them cohabit in the same device. That shoehorning generally incurs costs in terms of product delays and additional mitigation solutions. It is a sobering thought that 3dB of noise can reduce the performance of your communications system by 50%. It is even more sobering that 20 or even 30dB of noise is common on some devices. This talk has two main intentions including an education in what RF interference is and as a reference source for identifying noise related issues and mitigating them in your current or future design.

Biography: Mr. Slattery is presently with Intel in Oregon and is the manager for the Advanced Signaling and Interference Technologies team in the Corporate Technology Group. He has been working in the field of EMI/EMC for 18 years and has developed measurement techniques and analytical approaches for the evaluation of high speed processors, chipsets, LAN and display electronics. Mr. Slattery has been one of the pioneers in developing near field measurement techniques for the scanning of integrated circuits providing some of the first surface field distributions of high spatial resolution. He was also one of the pioneers in the use of broadband radiated emissions techniques with VLSI GHz TEM cells designed specifically for measuring integrated circuits. Both the near field scanning and GTEM measurements have become IEC standards. In addition, he works on RF interference mitigation, EMI/EMC and high speed clocking issues. He has over 35 publications in the fields of EMC and RFI.

Reservations: To help us get an accurate headcount, please send an email to Harry Gaul (harry.gaul@ieee.org). There is no charge for meetings, but you pay for your own meal and drinks. Since we order off the menu, we do not need an exact number, so 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.

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).



Phoenix Section Life Members Affinity Group , Announcements

December Meeting

- What:** IEEE Life Members Affinity Group, Phoenix Section Technical Meeting
- When:** Wednesday, December 09, 11am – 1pm
- Where:** SRP's PERA Club's Desert View [upstairs], 1 East Continental Drive, Tempe, AZ (west of 64th St., ½ mile south of McDowell Rd.)
- Click this map link to SRP PERA Club:
<http://insidesrp/pera/facilities/PERAstreetmap.pdf>
- RSVP:** Requested by Monday, November 30, to the Section Secretary, Michel Ebertin by email: michel@ebertin.net
- Topic:** China and the USA getting to low carbon economy
- Speaker:** Dr. Gary Dirks, Ph.D., Director of LightWorks, Arizona State University and also at ASU member of the Board of Trustees for Sustainability and Julie Wrigley Chair of Sustainable Practices.
- Before joining ASU, Dr. Dirks was both the president of BP Asia-Pacific and president of BP China. Dr. Dirks served on the boards of the India Council for Sustainable Development and the China Business Council for Sustainable Development.

About IEEE Phoenix Section, Life Members Affinity Group: The Phoenix group was organized in 2008 to enable IEEE Life Members to retain active IEEE associations, contribute to the social good in their communities, advance IEEE's professional interests and enjoy each other's company. IEEE "Life" status is an automatic process when a member is least 65 years of age and has been a member of IEEE or one of its predecessor societies for such a period that the sum of his/her age and his/her years of membership equals or exceeds 100 years. Dues and regional assessments are waived for a Life member. For more information use the link: http://www.ieee.org/web/volunteers/mga/home/life_members_committee/index.html

Election: The executive committee of the IEEE Phoenix Section Life Members Affiliation Group is nominating for the 2010 year the members listed below for the executive committee:

Chair	Dr. Bruce Johnson	cbj@johnsonscientificgroup.com
Vice Chair	Michel Ebertin	michel@ebertin.net
Secretary	Leslie Daviet II	lesdavietii@cs.com
Treasurer	A. Barry Cummings	abcummin@srpnet.com
Program Chair	To be nominated	
Past Chair	Dr. George G Karady	Karady@asu.edu

The annual election of officers will be held at this December 9 meeting. Please send your nominations or questions to any officer. Self nominations are perfectly acceptable.



Computer Society Technical Meetings



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

Monthly Meeting

Date: Wednesday, December 2, 2009, 6:00 P.M. - 8:30 P.M.

Speaker: Dr. Brad Morantz

Dr Morantz, a senior member of the IEEE and member of the Computer and the Computational Intelligence Societies, researches methods to improve our decision making. His most recent work is in intelligent classification utilizing machine cognition. The goal is to understand how pattern recognition and cognitive function are accomplished in the biological world and then to be able to implement this in the machine environment in order to improve the quality of our decision making.

Dr Morantz has his BS in CIS/EE, his MS and PhD in Mathematical Decision Science with a minor in computer science and an emphasis in artificial intelligence. He has taken additional courses in Computational BioScience and the sciences in general. He also has over 150 hours from Raytheon Learning Institute as well as numerous other continuing education courses. Dr Morantz has given many presentations on advanced methodologies around the country and is currently on the editorial board of the International Journal of Data Mining, Modeling, and Management. He also has many publications in this area as well.

Topic: Biological Neural Processing as a Paradigm for Visual Pattern Recognition

A bat, with a brain that is the size of a plum, maneuvers extremely well, even when compared to our best air traffic control systems. This kind of performance is far from anomalous. In fact, most biological systems perform as well, if not better, than our best computers. This applies to many cognitive functions, including image pattern recognition. We will discuss some of the biological systems and how they operate. Comparisons will be made to our current state of the art computer algorithms and systems. These biological neural processors are amazing in their simplicity and ability to recognize patterns and images.

Location: DeVry University, 2149 W. Dunlap Ave., Phoenix, AZ 85021
(1 mile east of I-17 on Dunlap, SE corner of 22nd Ave and Dunlap)

Networking will be in the Ramada (outside South East corner of building, next to parking lot) 6:00 -7:00 P.M. with a light meal. Meeting Room location will be announced during the networking. Presentation starts at 7:00 P.M.

Free, everyone is welcome.

Phoenix Chapter of the IEEE Computer Society

****Keep this date in Mind for the New Year!! ****

Saturday, March 6, 2010

Phoenix Chapter 3rd Annual Picnic Meeting

Everyone is welcome. Please tell others about this meeting.

Please see the website for more details

Date: Saturday, March 6, 2010

Time: 10:30 am until 2 pm

Place: Palo Verde Pavilion, Desert Breeze Park, Chandler AZ

\$1 for in-advance* student purchase

\$3 for in-advance* member and/or at-event student purchase

\$5 for in-advance* non-member, at-event member purchase

\$7 for at-event non-member purchase

* in-advance purchase means purchased at meeting or from an officer

We will be selling tickets wherever you happen to find an officer present.

More details about Desert Breeze Park:

The BBQ/picnic is at the Palo Verde Pavilion on the Southwest side of the park. There are several family friendly activities at the park.

A fantastic place to spend family time, Desert Breeze Park is chock full of fun things to do. Children especially like the splash pad, along with a playground, ball fields, rides on Desert Breeze Railroad (a 16"-gauge train), a carousel, and a lake for fishing. Grown-ups favor walking trails, tennis courts, a hummingbird habitat, and a demonstration garden that features Southwestern plants. Restrooms and picnic facilities are available.

Phoenix Chapter of the IEEE Computer Society

Future Technical Meetings

- January 13, 2010 – SAM (Special Administrative Meeting), Location TBD
- March 6, 2010 – Annual Picnic
- April 7, 2010 – TBA
- May 5, 2010 - TBA
- September 1, 2010 – TBA
- October 6, 2010 – TBA
- November 3, 2010 – TBA
- December 1, 2010 - TBA

Would you like to be a speaker at a future meeting? We are always looking for interesting speakers to cover computer related topics.

Contact Jon.Candelaria@motorola.com or joy.shetler@computer.org for more information on becoming a speaker today.



IEEE Phoenix Area Consultant's Network



The meeting of the IEEE Phoenix Area Consultant's Network will be held at the offices of ETA Engineering, Inc., 4049 E Presidio Street, Mesa Arizona, on December 10, 2009. This meeting will be our annual business meeting, and will provide for the nomination and election of officers for the 2010 year.

We should also be considering what kind of programs and speakers we want to have for the next 12 months, and where our future meetings should be held. The manufacturer's Representatives of Earle Associates Arizona have graciously offered to allow us to use their facilities as a meeting place. They are located at 8161 E Indian Bend Road, Scottsdale AZ 85250. We should discuss this at the December meeting and determine if this location is centrally located enough to satisfy the members that are regularly attending the meetings.

Having the programs planned a year in advance, with some alternates, worked out quite well this year. We will need to determine what our choice of menu should be in advance, so we can have it provided. For food types, we have Bellagios Pizza and Mediterranean foods, Vitos Pizza and Italian foods, Tia Rosas Mexican foods, Subway, or Arbys. Please respond by e-mail what your preference would be and we will go with the majority choice. The Board meeting will start at 5:30, with the food at 6:30. The presentation will start at 7:00.

Some of the topics that need to be addressed at the board meeting are:

1. The ever present discussions about where to meet and what to eat.
2. Speakers and topics for new programs, starting with January, 2010. I would like to map out the whole year as we did last year.
3. Next month will be the annual business meeting, with the election of Officers and Board members. We should identify which seats are open, as well as determine who might be willing to fill the positions.
4. We still need to expand our membership and increase our attendance at the meetings.

Our November meeting was held at ETA Engineering, and our speakers were Jim Soudriette and Tom Funk. They gave a fine presentation on the political and ethical aspects of conducting a work assignment within an organization as a management consultant.

Our current officers are:

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

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.

- January 8 No meeting scheduled
- February 12 Final officer selection and business meeting
- March 12 "Income Taxes for Consultants" David Isaac
- April 25 PACN Picnic

We invite any of the IEEE Phoenix Section members and student members to attend our meetings, and we would like some inputs on program topics. Some of the topics we are considering for future meetings are:

- SCORE assistance for Small Business Startups
- The State of Arizona Mechanic's Lien Laws and their application to consultants
- Engineering Registration requirements for offering Professional Engineering services

We will be happy to add any new topics, if they are of interest to the Phoenix Section Membership.

Upcoming IEEE Conferences in Phoenix

The *IEEE Industrial Electronics Society (IES)* of the IEEE is holding IECON 2010 - 36th Annual Conference of IEEE Industrial Electronics 7-10 November 2010 in Glendale, AZ. For more information:

<http://iecon2010.njit.edu/>

The *IEEE Microwave Theory and Techniques Society* will sponsor the conference entitled 2011 IEEE Radio and Wireless Symposium (RWS). This conference will be held in Glendale, AZ on January 16-20, 2011.

For further information, please contact,
George E. Ponchak, NASA Glenn Research Center
21000 Brookpark Rd., MS 54/5
Cleveland, OH 44135
george.ponchak@ieee.org

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.

GOLD Webinar Covers How to Become a Manager

Join Dr. Michael Aucoin, PE, PMP for "Geek in the Lead: Growing from Engineer to Manager", an entertaining and informative webinar on the most important development in the career of an engineer. Learn tips that you can apply immediately to be effective in management, and build a solid foundation for a successful and rewarding career as a leader.

<http://bmsmail3.ieee.org:80/u/15605/855379>



Teacher In-Service Program Support to Phoenix Schools by IEEE Retirees

A team of three volunteers from the "Teacher In-Service Program", affiliated to the IEEE Phoenix Section, has continued the visits to the Phoenix area schools that we reported in our June issue. Their mission is to train science teachers in improved ways to teach science and engineering to schoolchildren and instill a deeper interest in our younger generation in science and engineering.

John Purchase, Arnold Brenner and Eli Kawam visited the Sacaton Middle School in the Gila River Indian Community. They gave three lessons on "Sail Away" to 7th Graders, teaching them how Newton's Laws, Archimedes Principle and Bernoulli's Principle dictate why a sail boat works, and why a modern yacht can also sail into the wind. The students also designed and built model sail boats which were tested in a paddling pool with a fan at one end. As a bonus, they were shown a practical demonstration of Bernoulli's Principle covering the classroom with a toilet roll, and took rides on a hovercraft made from an aluminum pan and a leaf blower (it would carry 300 pounds!).

These visits and lessons generated tremendous amount of interest among the teachers and students. Three budding engineers were identified who will be tracked and encouraged in three planned future visits.

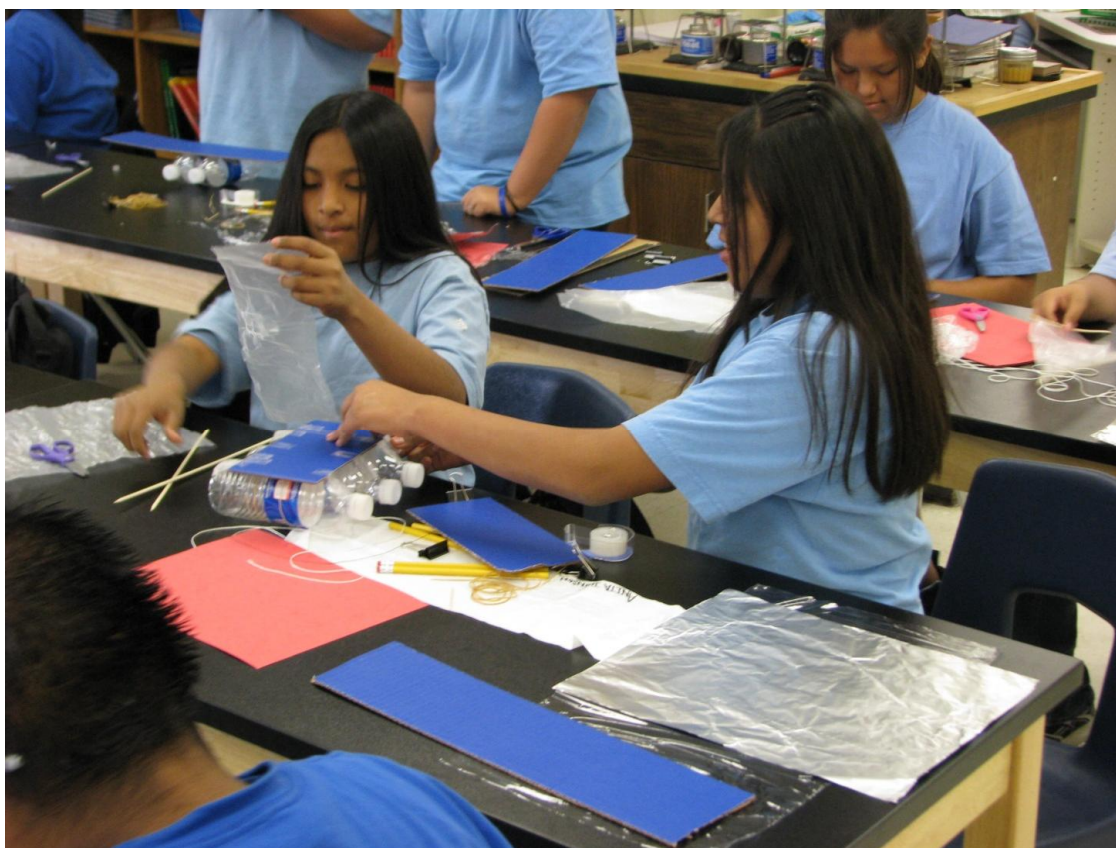
Here are some pictures from these interesting and inspiring visits by these tireless IEEE Phoenix TISP volunteers.



Arnold Brenner Teaching Newton's Laws, Archimedes Principle & Bernoulli's Principle As Applied to Sailing Boats



Arnold Brenner Demonstrating Bernoulli's Principles Applied To Sailing Into The Wind With An R/C Model Boat



Designing & Building (One Of Our Budding Engineers On The Left!)



Testing The Resultant Design



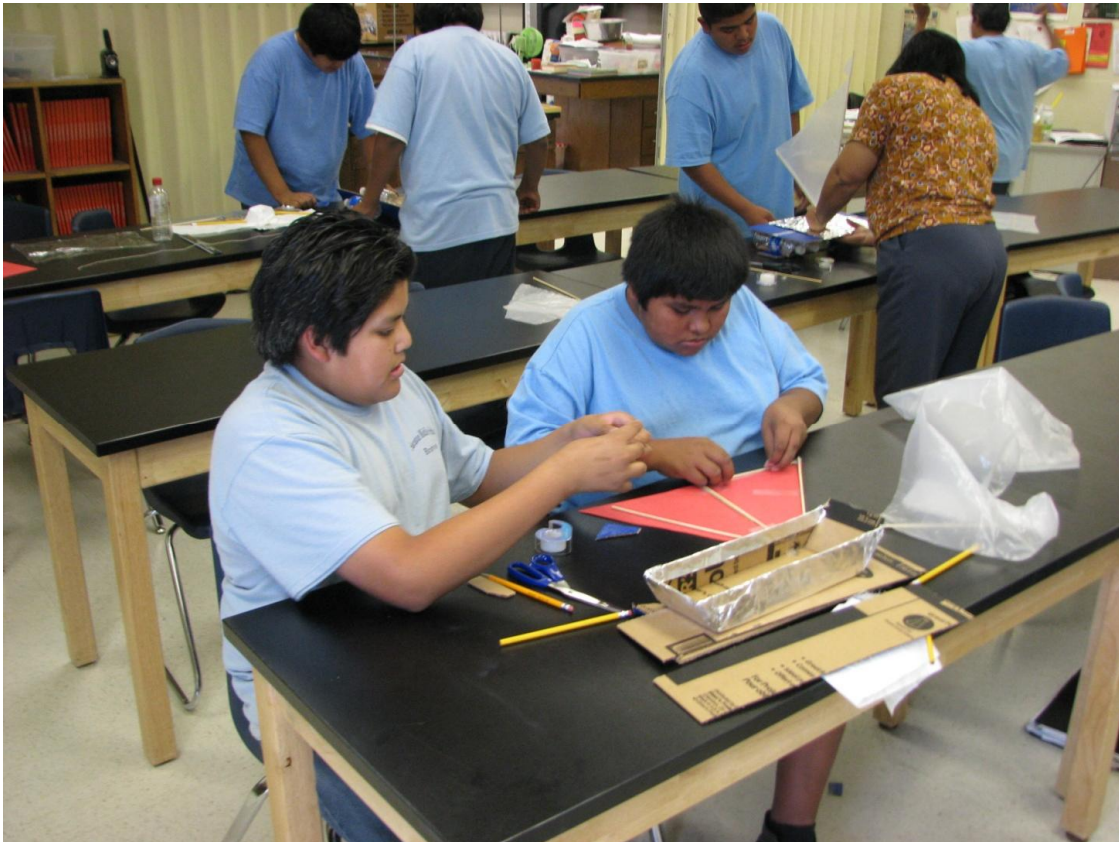
Note The Rudders; This Budding Engineer Actually Built Two Different Designs That Worked



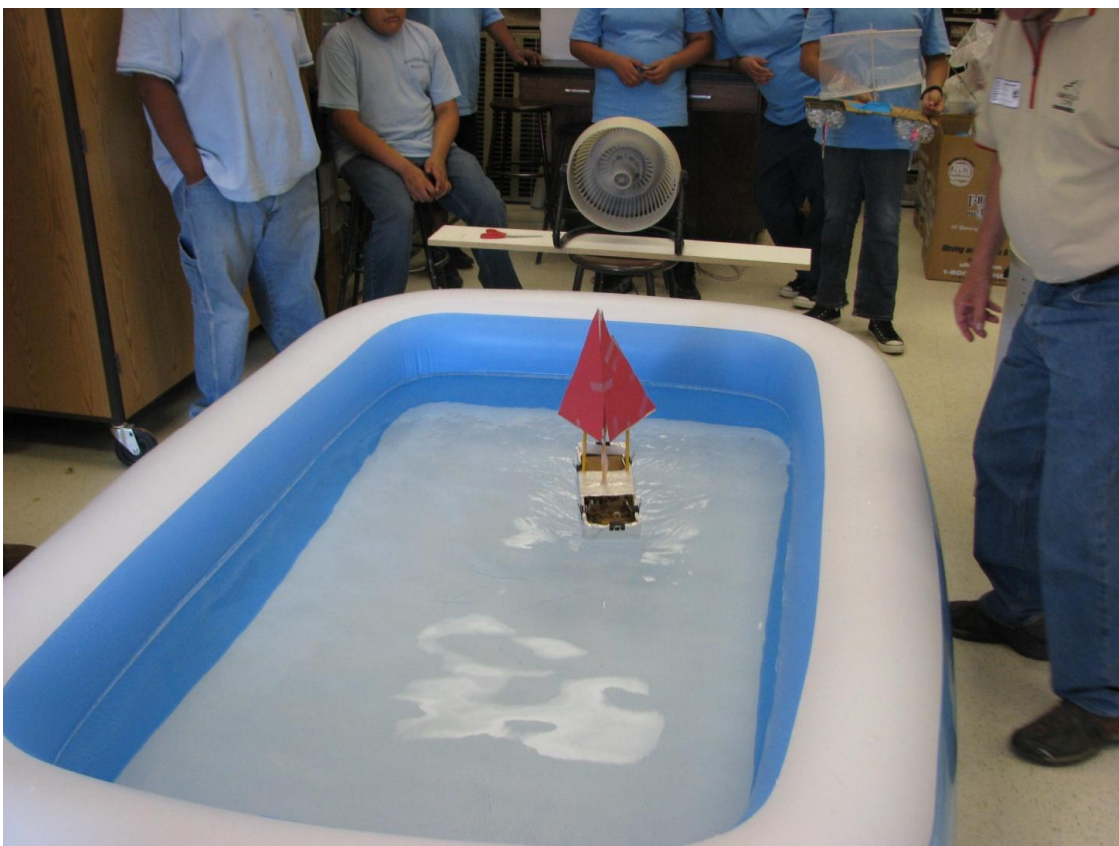
Eli Kawam "Gophering" For Our Second Budding Engineer



The Proud Builder / Engineer



A Landing Craft Design Led By Our Third Budding Engineer, On The Right



The Landing Craft Under Sail



Eli Kawam Demonstrates Bernoulli's Principle With A Toilet Roll & A Leaf Blower



Getting A Push On The Hovercraft From John Purchase



The Joy Of Flight!

The TISP program is an effort sponsored and promoted by the IEEE national office but run at the local chapter level. As a subset of TISP, talented retirees in the IEEE Phoenix section are being organized by John Purchase to help on this noble cause. Any retiree interested in joining the effort should please email John Purchase at: jpurchase@cox.net. Plus any non-retiree interested in helping the Chapter's TISP effort should get in touch with Mike Poggie at: Mike.Poggie@ieee.org.

Phoenix Section Annual Banquet

Saturday, February 13th, 2010

Hilton Phoenix Airport

5:00 PM – 9:30 PM

Keynote Speaker: Dr. Larry Kazmerski
Director, National Renewable Energy Laboratory

Lawrence L. Kazmerski is director of the National Center for Photovoltaics at the National Renewable Energy Laboratory (NREL) in Colorado, US. He received his B.S.E.E. (1967), M.S.E.E. (1968), and his PhD degree in electrical engineering (1970) all from the University of Notre Dame. He served in a postdoctoral position at the University of Notre Dame Radiation Research Laboratory (Atomic Energy Commission) in 1971, and was on the electrical engineering faculty of the University of Maine, where his research included NSF and ERDA funded work in thin-film photo-voltaics and the report of the first thin-film copper-indium-diselenide (CIS) solar cell. He came to the Solar Energy Research Institute (SERI) at NREL in 1977. Kazmerski received the World PV Award in May 2006 for his outstanding contributions to the worldwide advancements of PV science and technology. Sponsored by professional organizations from the European, Asian-Pacific Rim, and American PV communities, the award recognizes superior and sustained leadership in solar PV technologies.

Kazmerski also received the Nelson W. Taylor Award in 2006. This award from the Department of Materials Science and Engineering at Pennsylvania State University has been recognizing outstanding achievements and contributions in the field of materials science since 1970.

The first scientist hired by NREL for PV research, Kazmerski has published more than 310 journal papers on solar cells, thin films, semiconductor materials and devices, surface and interface analysis, scanning probe microscopy, nanoscale technology, high-temperature superconductivity, and semiconductor defects. An author and editor of four books, he is editor-in-chief of the Elsevier journal *Renewable and Sustainable Energy Reviews*.

Kazmerski is a fellow of the Institute of Electrical and Electronics Engineers, the American Physical Society, and the American Vacuum Society. He has won three R&D 100 awards for novel measurement and characterization devices. Kazmerski was inducted into the National Academy of Engineering in 2005.



Section Banquet IEEE PHOENIX SECTION ANNUAL BANQUET

Saturday, February 13th, 2010 Hilton Phoenix Airport

1. This Awards Guide lists the awards along with the selection criteria that will be implemented for selecting the award recipient.
2. Please read through this awards guide to help you in selecting the award category for nomination.
3. Complete the award nomination form given at the end of this document and submit ONLY as an email attachment to the IEEE Phoenix Section Annual Banquet Organizing Committee member responsible for the award category along with a copy to Dr. Vasu Atluri, Awards Committee Chair. Dr. Vasu Atluri's email address is vpatluri@ieee.org and telephone number is (480) 227-8411. The contact list for the organizing committee members is as follows:

For Member Category Nominations, please send the form along with supporting documents to Dr. Debendra Mallik, Chair, at dmallik@ieee.org. He can be reached by telephone at (480) 201-6322.

For Chapter / Society Category Nominations, please send the form along with supporting documents to Dr. Henning Braunisch, Vice-Chair, at braunisch@ieee.org. He can be reached by telephone at (480) 552-0844.

For Non-Member Category Nominations, please send the form along with supporting documents to Mr. James H. Hudson, Secretary, at jim.hudson@srpnet.com. He can be reached by telephone at (602) 809-0942.

For Corporate Category Nominations, please send the form along with supporting documents to Dr. Vasu Atluri, Awards Committee Chair, at vpatluri@ieee.org. He can be reached by telephone at (480) 227-8411.

For Educational Category Nominations, please send the form along with supporting documents to Mr. Nick Leonardi, Student Activities Coordinator, at nleonardi@ieee.org. He can be reached by telephone at (480) 720-1435.

4. All sections of the form should be completely filled by typing in bold and capital letters. Submission of additional documents such as resume in support of the nomination is highly encouraged.
5. Deadline for submission of the nomination form is Friday, January 1st, 2010. Awards Banquet Committee will review the forms and inform the selected candidates and nominators by Friday, January 15th, 2010 by email.

If you have any additional questions, please contact Dr. Vasu Atluri, Awards Committee Chair, at (480) 227-8411 or by email at vpatluri@ieee.org.

Saturday, February 13th, 2010 Hilton Phoenix Airport -

AWARDS GUIDE

(UPDATED NOVEMBER 2009)

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.

The Phoenix Section has established the following general award and recognition categories:

- Member
- Chapter/Society
- Non-member
- Corporate
- Educational
- Special Chair

Award and Recognition Categories

A. Member:

The Section recognizes individual members in two categories:

- Young Engineer of the Year
- Engineer of the Year

The Young Engineer of the Year award is offered to recognize an individual of Member Grade in the section with 10 years or less experience in the profession. Ten years include graduate degree study period. Nominations for this award may be offered by individuals, by a company or by a Society Chapter. Qualifications for the award must satisfy at least one of the following criteria:

- Be recognized by his/her employer for important contributions to a project or company mission
- Made important contributions to the Section/Chapter/Conference, profession or the community through leadership activities related to an event(s)
- Publish at least one refereed technical paper
- Hold at least one U.S. patent

The Engineer of the Year award is offered to recognize an individual of Member or Senior Member Grade in the section with over 10 years experience in the profession. Nominations for this award may be offered by individuals, by a company or by a Society Chapter. Qualifications for the award must satisfy at least one of the following criteria:

- Be recognized by his/her employer for important and significant contributions to the organization projects or towards the company mission
- Publish at least two refereed technical papers
- Hold at least two U.S. patents
- Made significant contributions to the community or profession

The Section also recognizes members who attain advanced member grade levels including Fellow and Senior Member. Criteria are established by the IEEE.

Fellow recognizes unusual distinction in the profession and is conferred only by invitation of the Board of Directors upon a person of outstanding qualifications and experience in IEEE designated fields. It is conferred to a person who has made important individual contributions to one or more of the IEEE designated fields. The Fellow Grade is the highest membership grade which can be achieved within IEEE. Total number selected in any one year does not exceed one-tenth percent of the total voting institute membership.

Senior Member Grade is the highest for which application may be made and requires experience reflecting professional maturity. Candidate should be an engineer, scientist, educator, technical executive, or originator in IEEE designated fields. Candidate should have shown significant practice for at least ten years and significant performance over a period of at least five of those years.

B. Chapter/Society:

The Chapter/Society may provide one award to recognize individual, team or organization using a variety of criteria including technical, professional, chapter / society contribution or other special category. Awards should recognize specific contributions, achievements and efforts (individual or team) in the development and implementation of the criteria used for the award.

An "Outstanding Society Chapter Award" for the IEEE Phoenix Section may also be awarded each year. The Section shall solicit and qualify chapters for the Outstanding Society Chapter Award. Nominees are either provided by the Society Chapters or decided by awards committee. The Section may recognize a Society Chapter using a variety of criteria including technical, professional or other special category. Awards should recognize specific contributions, achievements, and efforts including the number of meetings, workshops, etc. consistent with membership size of the Society Chapter, in the development and implementation of the criteria used for this award.

The Chapter/Society award nominations should be approved and submitted by the Chapter Chair or a Chapter Officer assigned by Chapter Chair. The assigned officer name should be informed by Chapter Chair by email in advance to both Dr. Rao Bonda, Annual Banquet Organizing Committee Member responsible for Chapter / Society Category Nominations, and to Dr. Vasu Atluri, Awards Committee Chair.

C. Non-Member:

The Section may recognize non-IEEE members for exemplary contributions (technical and/or professional) to the engineering profession through their efforts within their company, the community or for the Section.

D. Corporate:

The Section recognizes companies in two categories:

- Large Company of the Year
- Small Company of the Year

The companies are recognized for their outstanding technical and/or professional contributions in furthering the objectives and professional aims of the IEEE Phoenix Section, the IEEE, the IEEE-USA and the field of Electrical Engineering. The Technical Contributions should include significant contributions or advancements in technology or the application of technology in the electronics or electro-technology fields. The specific area of technology is not restricted and may include, but is not restricted to, design and manufacturing processes, new products or creative applications to existing technologies. The Professional Contributions include significant contributions made to further the professional goals and programs of IEEE. Companies may be recognized for specific contribution, achievements and efforts that promote the professionalism goals of the section and IEEE. Nominations may be for a variety of professionalism related areas including support of IEEE members, employee development and training initiatives, community involvement or other programs that improve the general image of the engineer or engineering profession. Companies with less than or equal to 500 employees are considered Small Companies and those with greater than 500 employees are considered Large Companies during the award selection.

E. Educational:

The Section recognizes educational institutions and educators in the following categories:

- Outstanding IEEE Student Branch
- Outstanding Pre-college Educator
- Outstanding Faculty

The Section shall solicit and qualify award candidates for the Student Branch award. Nominees are provided by the student branch, branch advisor, administrators or Society Chapters. The Section may recognize a Student Branch using a variety of criteria including technical, professional or other special category. Awards should recognize specific contributions, achievements and efforts (individual or team) in the development and implementation of the criteria used for this award.

Nominations for Outstanding Pre-college Educator and Outstanding Faculty may be submitted by any member of the Section. Awards should recognize specific contributions, achievements, programs and efforts completed by an individual who promotes technical literacy, or the technical or professional goals of the Section, the IEEE or the IEEE-USA.

The section also recognizes student scholarship winners selected during the year by a committee consisting of section officers. The criteria for selection are based on academic excellence, participation in IEEE activities, contributions to IEEE and financial need.

F. Special Chair:

The Section Chair may wish to provide up to three special awards to recognize individuals or organizations for activities that support the goals of the Section that are not specified within the above categories, such as public service. The Section Chair may solicit inputs and recommendations from the Awards Committee, Section Officers, and Members of the Section. The Section Chair may recognize IEEE or Non-IEEE members for contributions to IEEE, the engineering profession, and volunteer work. The section chair also recognizes current section officers for their contributions for advancement of the section.



IEEE PHOENIX SECTION ANNUAL BANQUET



Saturday, February 13th, 2010
Hilton Phoenix Airport - Grand Ballroom, Phoenix, Arizona

Award Nomination Form

Completely filled form should be submitted as an email attachment ONLY to the appropriate award committee member
Award committee chair should be copied on the email – Award committee member contacts are listed on the first page

Candidate's Name:
(including Dr., Mr. and Ms.)

Address:

Telephone Number: **Fax Number:**

Email:

IEEE Member: Yes No **Student** **Membership #**

Award Categories: (please select one)

A. Member: **Engineer of the Year** **Young Engineer of the Year**

B. Chapter / Society: **Technical** **Professional** **Special Category**

Chapter / Society Contribution

Outstanding Society Chapter

C. Non-Member: **Contributions to the IEEE / Engineering Profession**

D. Corporate: **Large Company of the Year**

Small Company of the Year

E. Educational: **Outstanding Student Branch** **Outstanding Faculty**

Outstanding Pre-College Educator

F. Special Chair: **IEEE / Engineering Contributions** **Non-IEEE Contributions**

Award Citation:
(Limit to Maximum
Twenty Words)



IEEE PHOENIX SECTION
ANNUAL BANQUET



Saturday, February 13th, 2010
Hilton Phoenix Airport - Grand Ballroom, Phoenix, Arizona

Award Nomination Form

Completely filled form should be submitted as an email attachment ONLY to the appropriate award committee member Award committee chair should be copied on the email – Award committee member contacts are listed on the first page

Please provide information in support of the nomination in the space provided below – if needed use additional sheets. Submit other documents such as resume in support of the nomination.

Nominator's Name:

IEEE Member: Yes No Student Member #

Affiliation: Section Chapter / Society Student Branch None

Affiliated Organization Name:

Telephone Number: Email:

Future City Competition Arizona Region



2009-2010 FUTURE CITY COMPETITION

TEAM AND COMPETITION TIMELINE ARIZONA REGION

WWW.FUTURECITY-ARIZONA.ORG

The Future City Competition is a national educational program sponsored by the engineering community to promote technological literacy and engineering to middle school students. The program fosters an interest in math, science, and engineering through hands-on, real world applications. The competition is open to all public, private and parochial schools. The national finals of the Future City Competition are a featured event during Engineers Week with students from across the country competing in Washington, D.C.

The Arizona Regional Competition schedule is based on the same calendar as other regions in the United States. The winner of the Arizona Regional Competition will compete in the national finals in Washington, D.C. during Engineers Week.

Major dates of the Arizona Regional Competition are below. Materials must be submitted on or before the posted dates or points will be deducted.

COMPLETE COMPETITION AND REGISTRATION INFORMATION IS AVAILABLE ON THE WEB.

ACTIVITY	DATE	LOCATION/NOTES
School Registration	August 4, 2009 through October 31	Submit through Future City Arizona web site
Team Registration Deadline	October 31	Submit through Future City Arizona web site
Logical City Model and Computer Design completed	Wednesday, November 18	Submit through Future City Arizona web site
Research Essay and City Design Narrative due	Friday, December 11	Submit through Future City Arizona web site. Submissions must be provided in Word format.
Model, display and reports due to Central Phoenix Library	Saturday-Sunday, Jan 16-17	City models delivered to the Central Phoenix Library. Confirmation of team information and deliverables. Judging takes place.
Models on display at the Central Phoenix Library	January 17 – 22	1221 North Central Phoenix, AZ 85004
Regional Competition University Public School - Phoenix <i>(formerly Phoenix Preparatory Academy)</i> 7th Street and Fillmore	Saturday, January 23, 2010	Team registration begins at 7:00 am. Competition begins promptly at 8:15 am
National Finals in Washington, D.C.	February 13-16	The winning team from the Arizona Region will compete at the national finals.

IEEE President's Change the World Competition



Humanitarian Technology Challenge

Student Design Competition

IEEE is sponsoring a Regional Student Design Competition for solutions to one of three humanitarian problems as part of the joint IEEE-United Nations Foundation Humanitarian Technology Challenge (HTC). The competition runs from Oct. 2009 to May, 2010.

The HTC Regional Student Design Competition challenges students to provide a working prototype, scale model or detailed engineering design specifications for a project that satisfies one of these three Challenges

Reliable electricity

help solve this challenge

Reliable Electricity: Availability of electric power for lighting and other electronic devices in resource-constrained environments. Important for education, communications, and economic development.

Data Connectivity of Rural District Health Offices: Capability of exchanging data among remote field offices and central health facilities. Important for accessing treatment protocols, creating and monitoring health trends, and sharing results of treatments.

Data connectivity of rural district health offices

help solve this challenge

Individual ID tied to health records

help solve this challenge

Individual ID Tied to Health Records: Consistent availability of patient medical records. Important for ongoing treatment of patients, especially migrants and those with long-term diseases.

The project can be developed by student individuals or by student teams. Projects must be submitted no later than May 28, 2010. The winning teams will be announced in late June. Winning teams will receive regional prizes and the opportunity to present their solution at an HTC Conference in 2010.

Student teams will be judged on the creativity and applicability of their design, completeness of their documentation, and quality of their presentation.

Rules for the Regional Student Design Competition are at www.ieeehtc.org/students.

For additional information about the HTC project, detailed descriptions of the challenges and how to become involved, visit the IEEE-HTC site: www.ieeehtc.org.

DAMA Phoenix Meeting

John Ladley, internationally recognized expert in Information Management and editor of the Data Strategy Journal, will be speaking December 10th, 2009 on the topic "Master Data Management (MDM) - Examining business and architecture success factors". This talk is sponsored by DAMA International, Phoenix Chapter.

Time: 9:00 am until noon

Place: University of Phoenix - Phoenix Campus
4635 E Elwood St.

Phone: 480.804-7600

Please RSVP to dama_phoenix@yahoo.com - space is limited.

Guests are more than welcome to attend the event. Guests may attend one event for free - after which annual membership is required. Email dama_phoenix@yahoo.com with any questions.

Editors Note: This above notice is presented as a service by the Phoenix Section IEEE as a courtesy to DAMA Phoenix. The Megaphone will run notices such as this for organizations that sponsor meetings on topics that are related to our member's interests on a space available basis. No endorsement of the organization or speaker is made.



COMPONENTS, PACKAGING AND
MANUFACTURING TECHNOLOGY SOCIETY
ECTC Electronic Components & RF Program Committee
CPMT RF & Wireless Technical Committee



60th Electronic Components and Technology
Conference (ECTC)
June 1 – June 4, 2010
Paris Las Vegas Hotel, Las Vegas, Nevada USA

Call for Papers

The ECTC Electronic Components & RF Program Committee and the CPMT RF & Wireless Technical Committee encourage you to submit an abstract to ECTC 2010 in the areas of passive components & networks, RF & Microwave components & modules, and subsystems. ECTC is the premier Electronic Components and Packaging conference held annually and attended by about 1000 delegates with equal participation from companies and academia. As in the past, Electronic Components, RF & Microwave, and MEMS related papers are solicited for focus sessions during this prestigious conference.

Discrete Passive Components

Design, materials, processes, and manufacturing considerations for discrete passive components: resistors, capacitors, inductors, and passive networks.

Integrated & Embedded Components

Design, materials, processing, modeling, manufacture, and characterization of integrated & embedded passive & active components on silicon, organic, ceramic, ultra-thin, and glass type substrates for digital, mixed signal, and RF applications; metamaterials, component integration for power converter modules.

RF & Microwave Components

Integrated antennas, filters, baluns, RFID/sensors, RF MEMS, MEMS, MEMS packaging, tunable devices and switches, high power and high efficiency RF/Microwave power amplifiers – design, technology and high frequency characterization

RF & Microwave Modules

Module Integration technologies in semiconductor, organic, and glass substrates – System in Package, System on Chip, Package on Package, and 3D integration; shielding and isolation

Materials, Processing, Reliability, & Manufacture of Electronic Components

Design, High permeability and high permittivity materials at high frequencies and their processing, yield and reliability aspects of electronic components, through silicon vias, wafer level RDL, and nanostructured materials and processes,

SUBMISSIONS:

Please submit abstracts using the ECTC web site: www.ectc.net by October 15, 2009. Abstracts must comply with the guidelines outlined at the website. To have your paper considered for inclusion in the "Electronic Components & RF" focused sessions

YOU MUST SELECT

"Electronic Components & RF" committee as your PRIMARY subcommittee preference when you submit your abstract at the ECTC web site. Again, to have your paper considered for the electronic components & RF/microwave sessions, please do the following:

STEP #1: Submit abstract through the ECTC web site (www.ectc.net) and select "Electronic Components & RF" as PRIMARY subcommittee preference

STEP #2: Email abstract copy and author's email & contact information to:
Craig Gaw at c.a.gaw@ieee.org & Amit Agrawal at amiagra2@cisco.com

Craig Gaw,
Chair - CPMT RF & Wireless TC
Freescale Semiconductor Inc.
c.a.gaw@ieee.org

Amit P. Agrawal,
Chair - ECTC Electronic Components & RF TC
Cisco Systems, Inc.
amiagra2@cisco.com



Components, Packaging and Manufacturing Technology Society



Dear IEEE Phoenix Section members:

I am writing to invite you to take active participation in the local IEEE Components, Packaging, and Manufacturing Technology (CPMT) Society Phoenix Chapter. Currently, IEEE CPMT Society Phoenix Chapter is seeking volunteers to serve as officers for 2010. The officer positions include Chair, Vice-Chair, Secretary, Treasurer, Technical Program Chair and Assistant Chair, Membership Chair, Tutorial Committee Chair, Workshop Chair, and Publicity Chair.

The IEEE Components, Packaging and Manufacturing Technology (CPMT) Society is the leading international forum for scientists and engineers engaged in the research, design and development of revolutionary advances in microsystems packaging and manufacturing. The society has presence around the world with a total membership closer to 4000. More info about the CPMT society can be found at <http://www.cpmt.org/>

The activities of the IEEE CPMT Phoenix chapter can be found at <http://ewh.ieee.org/r6/phoenix/cpmt>. The list of activities include monthly technical seminars, two (2) half a day technical tutorials and an annual all-day workshop in partnership with the IEEE Waves and Devices (WAD) Phoenix Chapter. The chapter intends to cater to the needs of IEEE members and non-members within IEEE Phoenix Section by providing

- (i) wide array technical talks related to packaging and assembly
- (ii) low cost technical tutorials to enhance the job skill and
- (iii) generate funds for student scholarships.

The requirements to serve as on IEEE CPMT Society Phoenix Chapter Executive Committee are (i) IEEE member, (ii) IEEE CPMT society member, (iii) should reside in IEEE Phoenix Section. Additional information about membership can be obtained by accessing www.ieee.org. Metropolitan Phoenix, Flagstaff, Prescott and towns listed in the attached file fall under Phoenix fall under IEEE Phoenix Section.

Please circulate this announcement requesting for volunteers among your peers and colleagues to help with needed publicity.

Anyone interested in serving on IEEE CPMT Phoenix Chapter Executive Committee are requested to send their intent by email to samir.pandey@gmail.com by no later than Sunday, December 13th, 2009. For additional questions, I can be reached by telephone at (480) 208-7767 (Cell).

Looking forward to hear from you,

Regards

Samir Pandey, PhD
Chair



IEEE Computer Society at ASU

Open Source University Meetup

[IEEE Computer Society at Arizona State University](#) has a history of dedication to collaboration and innovation, and is a firm believer in the power of open source software. We are also passionate about helping our students network and succeed. In this spirit, we are proud to announce collaboration with [Sun Microsystems](#) and their [Open Source University Meetup \(OSUM\)](#) program!

Sun Microsystems has rapidly emerged as a leader in the open source community, making a large variety of their platforms open including [OpenOffice](#), [OpenSolaris](#), [OpenJDK](#), and even [OpenSPARC](#). You know a company is serious about open source when it makes its hardware open! In their passion for open source, they have created a community called the Open Source University Meetup which exists as a social networking tool for developers to meet others who are passionate about open source and learn more about Sun technologies. Members of the OSUM community include students from all around the world, Sun staff, and any developer who has a passion for expanding his or her own knowledgebase.

Beyond the obvious networking opportunities, [members of OSUM also get free, well-written and authoritative training](#) on Sun technologies through the [Sun Academic Initiative](#), and *extremely* reduced-cost sun certification exams! This is an amazing deal for those seeking to enhance their skill-set or prove that they have mastered a particular tool, and the best part is it's free and easy!

So what are you waiting for, an invitation? Well, here it is: go to <http://osum.sun.com> to sign up. Need more information? Please contact Nicholas Vaidyanathan at Nicholas.Vaidyanathan@asu.edu.

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: Debendra Mallik, Phoenix Section Chairman, dmallik@ieee.org

IEEE Phoenix - Calendar of Events

You may access the IEEE Phoenix Section Calendar of Events at:

<http://ewh.ieee.org/r6/phoenix/Calendar.htm>

For inputs and updates to the Calendar, please contact the IEEE Phoenix Section Conferences Chair, Russ Kinner at 602-997-2353 or e-mail: r.kinner@ieee.org