The Valley Megaphone

IEEE Phoenix Section
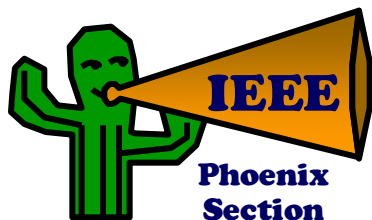
Newsletter of the Institute of Electrical and Electronics Engineers, Inc., Phoenix Section
October 2013,
Volume XXVII, Number 10

Executive Committee 2013

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c.weitzel@ieee.org

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barbara.mcminn@aps.com

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Surinder.tuli@gmail.com

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rhogan@ieee.org

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Membership
Vasudeva P. Atluri,
480-227-8411
vpatluri@ieee.org

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

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bradscientist@ieee.org

Awards
Vasudeva P. Atluri,
480-227-8411
vpatluri@ieee.org

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m.andrews@ieee.org

Webmaster
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kbharath@ieee.org

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IEEE Phoenix Section on-line updates can be found at http://sites.ieee.org/phoenix/ and on LinkedIn at:http://www.linkedin.com/groups?gid=2765918

Please send announcements for the *Valley Megaphone* to Mahesh Shah at mkshah@ieee.org for inclusion in the Section Calendar.

The IEEE Banquet pictures are up at http://sites.ieee.org/phoenix/category/annual-banquet/

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
Vasudeva P. Atluri
480-227-8411
vpatluri@ieee.org

Education Chapter
Martin Reisslein, 480-965-8593
reisslein@asu.edu

EMBS Chapter
TBD

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

GOLD
Shafiul "Jacky" Islam 520-245-9010
shafiul.islam@intel.com

Power & Energy Society
Kory Hedman
Kory.Hedman@asu.edu

Solid State Circuits
Cyndi Recker
cyndi.recker@ieee.org

Teacher-In-Service
Rickie Currens
Rickie.Currens@att.net

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

Life Members
Les Daviet II
lesdavietii@cs.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: Jennifer Taggart
928-581-5198, **jennifer.taggart@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: Lisa M. Ferguson
FERGUSL2@my.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.

The Department of Computer, Electrical, and Software Engineering at **Embry-Riddle Aeronautical University** in Prescott, AZ invites applications for a faculty position (tenure-track or tenured) at the assistant or associate professor level. The successful candidate should have a Ph.D. in Computer Science, Software Engineering, Computer Engineering or a related field at the time of employment. Preferred areas of expertise for this position include network, cyber, or computer system security, agile software development, cyber-physical and trustworthy systems, and management and team approaches for building software systems. Apply online at www.erau.edu/jobs and search for positions at Prescott. Contact Professor Post at john.post@erau.edu for further information.

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

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Upcoming Conferences in August in Region 6

During the month of October 2913, there will be a total of 20 IEEE sponsored conferences in Region 6. This month there will be 2 in Oregon and 18 in California.

As the weather gets cooler and the snow falls in the more northern states, we will find more conferences in region 6.

If you know of any upcoming conferences, please submit the information to Bradscientist@ieee.org, IEEE Phoenix Conference Chair.

IEEE Components, Packaging and Manufacturing Technology Society - Phoenix Chapter
Wednesday, October 16, 2013 at 6 PM

Nano-Processing for High Voltage and High Power Devices
Dr. John Parsey

Senior Scientist and Director, Advanced Materials Technology, ON Semiconductor

ABSTRACT

This presentation will illustrate two "nano-scale" technologies: front end device design and state-of-the-art backend die attach processes. The physics and materials needs for device structures suitable for high voltage, high power applications will be shown. We will address advanced vertical charge-balanced device structures with "nano-scale" dimensions, and the epitaxial growth processes that support the "superjunction" configurations. In the "back end" die attach processes we require materials that exhibit high electrical conductivity and thermal conductivity to minimize the power dissipation and to remove the waste energy as heat. At the same time, "low" process temperatures and high mechanical strength bond lines are required. A new approach to die attachment for high performance packaging will be presented.

BIOGRAPHY

John Parsey received the BSEE degree from Michigan State University in 1974, and became a process engineer at National Semiconductor. He returned to graduate studies receiving the SM and Ph.D. degrees in Materials Science from the Massachusetts Institute of Technology in 1978 and 1982, for work in thin film silicon, and GaAs crystal growth, respectively. He was at AT&T Bell Laboratories Murray Hill and Reading from 1982 to 1991, carrying out research in crystal growth, materials characterization and device physics in III-V and II-VI materials systems, and then directed the technology development for GaAs-based devices for high speed optical and RF communications, and high power radar applications. He then became VP for Operations at Bandgap Technology in Broomfield, CO, producing commercial GaAs-based materials, and ultra-high speed VCSEL arrays. Subsequently, he moved to Motorola SPS where he led groups in GaAs-based materials growth, device processing, device testing, and GaAs-MOSFET device research until 2000. He was the VP for technical marketing for the Global Communications Technology Corporation in HsinChu, Taiwan, and the founder and president of Global Communications Technology LLC (Americas and Europe). He was the Chief Technologist at ATMI/IR EpiServices from 2003 through 2006, responsible for R&D and engineering activities in silicon epitaxy, SiGe and SOS materials. From 2006 he has been Senior Staff Scientist and the Director of Technology and Development for ON Semiconductor working in advanced silicon materials, epitaxy, materials characterization, and directing projects in SOI materials, MEMS and power electronics.

He has consulted for NASA on various projects relating to materials processing in space, space shuttle equipment and systems. He has authored and co-authored more than 75 technical papers and numerous technical presentations. He authored reference works on III-V materials, edited for the Journal of Metals, and was an associate editor for the Journal of Electronic Materials for many years. He has contributed several technical book chapters on compound semiconductor device processing, and holds 16 patents. He was a member of the TMS from 1989 through 2006, and was the financial officer for the EMPMD division of The Materials Society from 1996 to 2003, and the Financial Officer for The Materials Society from 2003 through 2006. He has been a member of the IEEE for 32 years. In 2013, he was awarded the "Engineer of the Year" and "Outstanding Engineer" by the Phoenix Section of the IEEE Region 6, and the Southwest Section of the IEEE Region 6.

Date: Wednesday, October 16th, 2013

Location: Group Conference Room, Freescale Semiconductor, Inc., 2100 E. Elliot Rd. Tempe, AZ. There are new signs on the property (Discovery Business Center). Enter the facility through the Main (South) Lobby in building 94 and sign in with Security (Photo ID required). You will be escorted to the meeting room.

Time: 5:30–6:00 Social/Refreshments, 6:00–7:00 Presentation, 7:00 Dinner
(Pizza and Soda will be provided by the IEEE CPMT Phoenix Chapter)

IEEE members and non-members are all welcome to attend. Those who plan to attend should be at the facility entrance no later than 6:00 pm, as there will be no escorts available after that.

For more information, please contact any of the following CPMT officers:

Vasu Atluri (480) 227-8411	Devrajan Balaraman (480) 619-0944	Vivek Gupta (480) 252-8493
Mahesh Shah (480) 544-9438	David Dougherty (480) 413-6923	Surinder Tuli (480) 554-8275

Power & Energy Society

IEEE Power and Energy Society
Phoenix Chapter
http://www.ewh.ieee.org/soc/pes/phoenix/

News and Announcements:

- 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://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

October 2013 Luncheon Meeting

Date:	Thursday, October 17, 2013
Time:	11:30 am - 11:45: Registration
	11:45: Lunch
	12:00 pm: Program
Location:	SRP PERA Club
	1 E Continental Dr
	Tempe, AZ
	Map: http://www.ewh.ieee.org/soc/pes/phoenix/images/PERAMAP.pdf
Speaker:	John D. Moede, Emergency Management Coordinator, City of Scottsdale
Topic:	Emergency Preparedness
Cost:	$5.00 (No cost if you are a college student)
Reservations:	Contact Nicole at (602) 470-0400 or submit your name here:
	http://www.ewh.ieee.org/soc/pes/phoenix/lunch.php
	The reservation deadline is NOON on Monday, October 14, 2013.

Phoenix Section Life Member Affinity Group

Technical Meeting October 15, 2013

Topic: "Guide to the Markets" presented by Ben Kunzler with 15 minutes of Economic update, 15 minute Market update, and Q&A session. What impact recent activities by the FED and Government may have on your investments with ideas on what is to come.

Speaker Bio:

Ben Kunzler is a Vice President/Client Advisor with JPMorgan Asset Management.

In 2002, Ben went to work for UBS as a Financial Advisor and consultant for the Intel Stock Option account for greater Arizona. In 2003, Ben joined ING Funds in Scottsdale AZ as a mutual fund consultant for the Midwest region. In 2005, Ben began working for JP Morgan Asset Management, and has been working with Financial Advisors in Arizona, Colorado and New Mexico since 2008.

Ben has presented to thousands of Financial Advisors and Clients across the country, sharing investment insights, market and economic insights, as well as business-building and marketing strategies. He is frequently a guest speaker at many professional conferences. He holds his series 7, 63 and 65.

Ben, and his wife Jenn, have 2 young children, James and Aubrey, and reside in Mesa, Arizona.

When: Tuesday, October 15, 2013 11:00am – 1:00pm, Registration fee is $15. This fee will include lunch provided by the PERA Club.

LIFE MEMBER AFFINITY GROUP MEETING

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:
r.sprague@ieee.org at least 5 days before the meeting.

The Program Chair is seeking suggestion from members for future presentations. Any ideas of interest to LM are open for consideration. Please contact Ronald Sprague Program Chair at r.sprague@ieee.org 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. 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.

Future Technical Meetings:
- Tuesday, October 15, 2013   SRP PERA CLUB
- Tuesday, December 3, 2013   SRP PERA CLUB

Officers:

Chair	Leslie Daviet II	lesdavietii@cs.com
Vice Chair	Michel Ebertin	Michel@ebertin.net
Secretary	Tom Lundquist	Tom.Lundquist@ieee.org
Treasurer	Leslie Daviet II	lesdavietii@cs.com
Program	Ronald L. Sprague,	r.sprague@ieee.org
Past Chair	A. Barry Cummings	abarrycummings@gmail.com

**IEEE Phoenix Section
Women in Engineering
Affinity Group**

The IEEE Phoenix Section **Women in Engineering (WIE) Affinity Group (AG)** represented WIE and IEEE at the Fall 2013 Arizona State University (ASU) Engineering Career Exploration Night on ASU's Tempe Campus on September 10, 2013. Our Phoenix section WIE AG members partnered with members from the IEEE ASU Student Chapter and the IEEE Phoenix AG of the Graduates of the Last Decade (GOLD) to staff a booth at the Career Exploration Night. This unique event specifically targets students in their first year of engineering study. The event is focused on helping new engineering students learn about the many facets of engineering and learn from real engineers. This is the third year that the IEEE Phoenix Section WIE AG has participated in this event. There are over 1750 ASU Engineering Freshman this year, and most attended this event to ask questions about careers in engineering. During the evening we had the opportunity to talk to many incoming Freshman Engineering majors and to answer questions ranging from which elective classes to choose, to when or whether to pursue an internship, to what to expect out of a first engineering job. We also took the opportunity to explain the benefits of joining IEEE and the various local chapters, including WIE, GOLD and the ASU Student Branch. We received positive feedback from the students indicating that they enjoyed the opportunity to interact with and ask questions of local engineers. It is always a fun and energizing event, and we are looking forward to participating again next year!

CALL FOR VOLUNTEERS! Once again, Phoenix WIE members will be volunteering to participate in Arizona Science Lab (ASL) workshops that teach students in grades 4-9 about science and engineering. If you are interested in helping with the rockets class on October 29th, please contact Barbara McMinn, Shamala Chickamenahalli, or Diane Watkins (contact information below) by October 15th. WIE members are also welcome to volunteer on their own on other days. Visit the ASL website at www.azsciencelab.org for more information and a calendar of events.
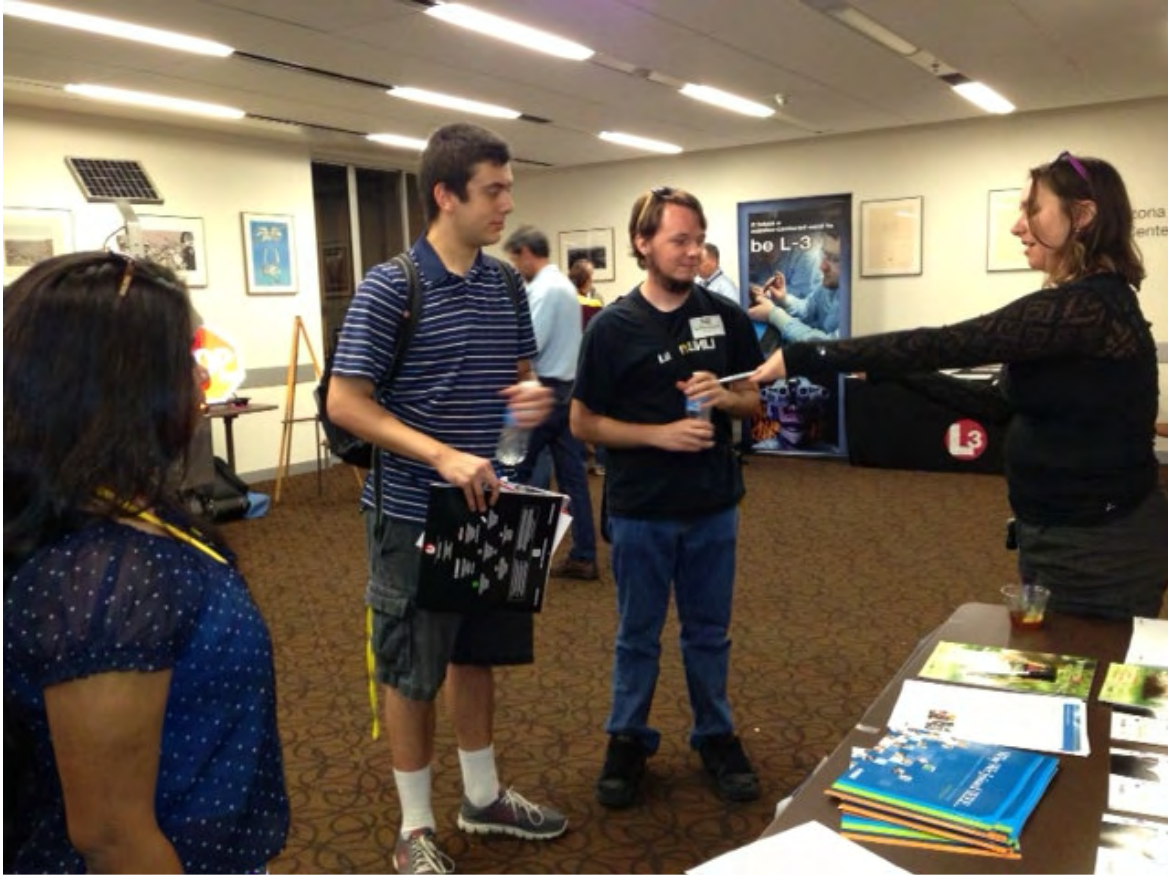
If you would like to be added to our distribution list for further information about this and future events, please contact Diane Watkins (diane.watkins@srpnet.com).

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@ieee.org)
    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)

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
October, 2013

News

- Our September meeting, held at DeVry, was well attended and the presentation by Dr. Brad Morantz was extremely well received.

- We are beginning to assemble our programs for 2014. Tentative 2014 chapter meeting dates are listed below. Mark your calendars to save the dates:
    - January 8th at DeVry University
    - March 5th at ITT-Tech
    - May 7th at DeVry University
    - July 2nd at ITT-Tech
    - Sep 3rd at DeVry University
    - Nov 5th at ITT-Tech

  Details of the program for these chapter meetings will be published as the speakers are confirmed.

Future Events

- November 6th – Chapter meeting, ITT Technical Institute, officer elections for 2014; speakers Lori Renaldi and Jerry Crow, "PEN Testing Techniques using Open Source Tools". Details available soon.

- January 8th – Chapter meeting, DeVry University, possible topic on robotics and/or artificial intelligence.

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, (a mile east of I-17 on Dunlap). ITT-Tech is located at 5005 S Wendler Drive, Tempe (NW corner of I-10 and Baseline Rd).

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

Election of chapter officers for 2014 will take place at the November meeting. If you would like to volunteer to serve in one of the officer positions please contact one of the chapter officers.

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

Chair:	Jerry Crow (jerry.crow@computer.org)
Vice-chair:	Brad Morantz (bradscientist@ieee.org)
Secretary/Webmaster:	Audrey Skidmore (askidmore@computer.org)
Treasurer:	Diane Smith (sdianesmith@computer.org

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

Meeting Free & Open to Non-IEEE Members

5:00 to 6:30PM, Thursday, October 10th, 2013

Arizona State University

Brickyard on Mill, Room BYeng-660, Brickyard 6th Floor

Ionic Memory - Hype or Reality?
Michael N. Kozicki, Ph.D., C.Eng.,

Abstract

It is generally accepted that the adoption of novel materials and device structures will be required to overcome the limitations of charge-storage memory elements as we pass beyond the "1X nm" node of the International Technology Roadmap for Semiconductors (ITRS). This is particularly true in the case of non-volatile memory (NVM), where both NOR and NAND Flash will struggle to meet the requirements of next generation memory due to the dwindling number of stored electrons in their highly scaled cells. One solution to this problem involves devices that can be switched between two or more non-volatile resistance states. One of the most promising resistance-change random access memory or RRAM variants is ionic memory. A thin ion-conducting film is placed between two electrodes to form a device which may be switched by the rapid formation of a nanoscale conducting pathway created by ion transport and redox reactions. Ionic memory technology would appear to have all the necessary attributes for applications in high density non-volatile arrays and data storage. The memory cells are scalable and may be operated at low voltage and current, thereby minimizing power dissipation in high density integrated systems and allowing their use in energy-starved mobile devices. Both transistor-based multi-level cell (MLC) active and diode-isolated passive cells have been successfully demonstrated, pointing the way to mass storage applications, and NOR-functionality devices have already been commercialized. This talk will present the state-of-the-art in nanoionic memory materials, devices, and arrays. It will cover where the technology currently lies and where it is likely to go in the not-too-distant future, including other areas in which the use of compact low energy resistance switching elements is desirable.

Biography

Michael Kozicki is a Professor of Electrical Engineering at Arizona State University and is a founder of ASU spin-out companies Idendrix, Inc. and Axon Technologies Corp. He holds over 75 highly-ranked US and international patents and, is a frequent invited speaker at major international conferences. His work in solid state ionics has led to a new class of memory which is currently available on the world semiconductor market. He previously served as Chief Scientist of Adesto Technologies Corp., Founding Director of Entrepreneurial Programs in the Ira A. Fulton Schools of Engineering, Director of the Center for Solid State Electronics Research (CSSER) at ASU, and Adjunct Professor at Gwangju Institute of Science and Technology in Korea. He graduated from the University of Edinburgh, where he is currently a Visiting Professor. Dr. Kozicki is a Chartered Engineer, a Founding Member of the Globalscot Network, and a member of several organizations, including the IEEE and the Institute of Physics.

Date: **Thursday, Oct. 10th , 2013**
Location: Arizona State University, Brickyard on Mill, 6th Floor, Room BYeng-660
            699 S. Mill Ave. Tempe, AZ 85281
            Best parking is underground. Take elevator at west end of parking area up to 6th floor.

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

For more information, contact:
    Steve Rockwell (WAD Chapter Chair)   (480) 241-9891   steve.rockwell@ieee.org
    Vishwanath Natarajan (Chapter Publicity) (404) 428-0514   vishwanath.natarajan@ieee.org

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

IEEE GOLD
Phoenix Section Affinity Group

IEEE Graduates of the Last Decade (GOLD) Phoenix Section Officers
- Chairman: Shafiul "Jacky" Islam (shafiul.islam@intel.com)
- Treasurer: Ashley Meredith (ashley.meredith@aps.com)
- Secretary/Webmaster: Joseph Caglio (joseph.m.caglio@intel.com)

Engineering Career Exploration Night 2013 at Arizona State University – September 10, 2013
Jacky Islam, Ashley Meredith, and Joseph Caglio from IEEE GOLD participated at the Engineering Career Exploration Night from about 5:00pm – 6:00pm to educate freshmen students about career choices in engineering and computer science. We participated in the event in collaboration with Shamala Chickamenahalli and Lesley Polka of IEEE Women in Engineering (WIE), and Jennifer Taggart from IEEE ASU Student Branch and IEEE Eta Kappa Nu Epsilon Beta Chapter.

IEEE GOLD Officers Meeting – September 10, 2013
Jacky Islam, Ashley Meredith, and Joseph Caglio had an officers meeting to discuss new officer recruitment, plan for upcoming events, and paperwork / administration from about 6:00pm to 7:00pm.

Upcoming Events

Presentation Workshop—Presenting for Excellence
A presentation workshop is being organized by IEEE GOLD Phoenix Section, in collaboration with IEEE Arizona State University Student Branch, IEEE-Eta Kappa Nu Epsilon Beta Chapter, IEEE WIE Phoenix Section, IEEE Life Members Phoenix Section, Intel AZWITLF (Intel Arizona Women in Technology Leadership Forum), and Intel WIN (Women at Intel Network).

Date: Friday, November 15, 2013   Time: 4:00—6:00 pm   Venue: ASU Tempe Campus (room TBA)

How many times do you sit through presentations that are full of text-filled slides and complicated charts and graphs? Besides being tedious, how much information do you really take away from these presentations?
The **Presenting for Excellence** workshop will show you how to prepare and deliver a presentation that people will pay attention to, remember, and act upon. This two-hour workshop will show you how to focus your message so that the important points are clear and memorable. You'll learn how to design visually pleasing slides that convey your key points effectively, and develop your presentation skills to enable you to effectively present your message.
Dave Hughes

Software Engineer, Assembly/Test Technology Development Automation Group, Intel Corporation
Dave Hughes is a 17-year Intel veteran with over 33 years' experience in the software industry. His varied industry experience includes eight years as a trainer and course developer and eight years as a highly-rated manager. Dave leads a series of Communicating for Extraordinary Results workshops and is a sought-after instructor for Strengthening Manager Skills and Building Trust.
Dave is an Area Governor in Toastmasters, and has achieved Advanced Communicator-Gold and Advanced Leader-Bronze. Dave has served as Master of Ceremonies for several Intel Software Professionals Conferences and Arizona Site Diversity Leadership Awards, and has delivered various keynote speeches and lunchtime brown-bag presentations. Dave recently served as Intel's Chief Ambassador.

2013 IEEE Phoenix Section News

View or down load the pictures from IEEE Phoenix Section Annual Banquet 2013 at: http://sites.ieee.org/phoenix/category/annual-banquet/

Executive Committee Meeting

Upcoming Meeting Tuesday, November 5, 2013
The Airport Hilton Phoenix,
2435 S 47th St. Phoenix, AZ 85034, (480) 894-1600.
Next Meeting December 3, 2013

Executive Committee Meetings

Date: First Tuesday of every month, except July and August
Time: 6:00 – 8:00 p.m.
Location: Hilton Phoenix Airport, 2435 South 47th Street, Phoenix, AZ 85034

2014 IEEE Phoenix Section Annual Banquet

IEEE Phoenix Section Annual Banquet on Saturday, February 8th, 2014 at Hilton Phoenix Airport, 2435 South 47th Street, Phoenix, AZ 85034 (Tel: 480-804-6008). Award nomination forms and Student Scholarship Applications will be available by September 30th, 2013. Banquet registration will be open from Wednesday, January 1st, 2014 until Wednesday, February 5th, 2014. Please access http://sites.ieee.org/phoenix for forms and registration. For additional information, please contact Vasu Atluri at vpatluri@ieee.org and (480) 227-8411 (Cell), Chuck Weitzel at c.weitzel@ieee.org and (480) 292-0531 (Cell), and Barbara McMinn at Barbara.mcminn@aps.com and (602) 371-6383.

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.

IEEE Phoenix Section Ventures into Social Media

We have made good progress in our Facebook page so far.

We have 43 people who Like this page (subscribers). Our first goal is to reach 500 likes by end of this year.
The activity chart shows that between 100 to 160 people are accessing this page every week.

You can access the web page three ways:
Use the URL: https://www.facebook.com/IEEEPhoenixSection
Click on the Facebook logo link from IEEE Phoenix section home page. http://sites.ieee.org/phoenix/
Search for IEEE Phoenix Section from your Facebook page.

We need following help.

1. Each of you access the IEEE Phoenix Section Web page and click on "Like" hyperlink.
2. Go on the Friends section of the page and "Invite Your Friends." Once your click on Invite button, it will get your email contact list. Your facebook contact list will already be populated with your Facebook friends and you can simply click the Invite button next to their name. Please invite as many friends as you can.
3. Provide me the contents for posting on a regular basis - meeting/ event announcements, Event pictures, Videos.
4. Start some discussion topics under - Status section.

If you have any questions, please call me.

Thanks for you help in advance.
I will send out regular reminders as well to make sufficient progress.

Vivek Gupta
Pace Chair
IEEE Phoenix Section

480-734-0266

IEEE Phoenix Section Nomination of Officers

The IEEE Phoenix Section is seeking nominations for the following elected Section officer positions for the 2014 term:

- Chair
- Vice Chair
- Secretary
- Treasurer

Additionally, the Nominating Committee is seeking candidates for some of the following non-elected appointed standing committee Chair positions for the 2014 term:

- Publicity
- Membership
- Student Activities
- Conferences
- Awards
- Inter-Society
- PACE (Professional Activities Committees for Engineers)
- TISP (Teacher In-Service Program)
- Web Master

Section officers must be IEEE members. Self-nominations are acceptable.

Please send nominations or any questions to Ralph Hogan @ rhogan@ieee.org.
Section members are urged to submit your nominations by no later than November 1, 2013.
Sincerely,
Ralph Hogan
Chair, Nominating Committee,

The Arizona Science Lab (ASL) offers students in grades 4-9 full day project based science workshop taught by expert volunteer engineers and scientists. This experimental based learning offers students a window into the world of science, technology, engineering and math (STEM) through a unified lessons that includes scientific principles, social relevance, experimental demonstrations and hands-on project construction activities. This program, offered free of charge to all student classes in the greater Phoenix area; is in direct response to the growing concern that not enough students are adequately prepared to enter into the stem fields.

Special Edition

We are very happy to bring you good news that may help enable your students to participate in an ASL Workshop!

With budges as tight as they are, some teachers find it difficult to financially arrange for bus transportation to our lab in Tempe. Here are three programs that you may find useful. You may be able to use the funds for other purposes as well.

Please visit these sites for complete details http://www.ieee.org

The Arizona Science Lab is a project of the Institute of Electrical and Electronic Engineers. The IEEE-USA is a constituent part of IEEE and focuses on issues concerning its United States-based members. They have created a "K-12 STEM Activity Fund" to help teachers to sponsor innovation and creativity in or outside of the classroom. Funds can be provided for an IEEE program such as ASL which is an implementation of an IEEE Teacher In-Service Program. One of our IEEE members will be happy to help you with the application and act as sponsor.

To find out more and to apply, please go to: http://www.ieeeusa.org/volunteers/committees/pec/teacher-grants.html

Target
Target is offering Field Trip Grants. Stores provide education grants to local K-12 schools to support educational field trips, early childhood reading programs and participation in the arts. Since launching the program in 2007, Target has made it possible for millions of students to go on a field trip.

To find out more and to apply, please go to: https://corporate.target.com/corporate-responsibility/grants

NEA Foundation
The National Education Association Foundation offers grants to support new ideas and practices that strengthen teaching and learning. Their goal is to fund and share successful strategies to educate and prepare students for bright and rewarding futures. They have awarded more than $8.5 million to fund nearly 4,000 grants to public school educators to enhance teaching and learning.
Applicants must be practicing U.S public school teachers or public school education support professionals.

To find out more and to apply, please go to: http://www.neafoundation.org/pages/grants-to-educators/

LightWorks lecture series on challenges for the future energy grid

A discussion of the impact of smart grid, renewable and transportation electrification

Join LightWorks and IEEE Oct. 28 for a two-part series on the challenges facing the future energy grid with Lee Krevat, the director of San Diego Gas & Electric's (SDG&E) smart grid initiative.

Part one
What: A presentation by Mr. Krevat with a question and answer period
When: 11 a.m. Oct. 28
Where: Arizona State University Tempe Campus, Memorial Union Building, Ventana room 241A
How: This is a free event. Visitor parking is available at the Apache Boulevard Parking Structure.

Part two
What: Panel discussion and reception
When: Reception at 5:30 p.m., panel discussion at 6 p.m. Oct. 28
Where: Arizona State University SkySong building (1475 N. Scottsdale Rd., Scottsdale, AZ 85257) in the Convergence room, 150
How: This is a free event. Free visitor parking is available at this facility.

LightWorks pulls light-inspired research at ASU under one strategic framework. It is a multidisciplinary effort to leverage ASU's unique strengths, particularly in renewable energy fields including artificial photosynthesis, biofuels, and next-generation photovoltaics. Find out more at http://asulightworks.com/ or follow us on Facebook at http://facebook.com/asulightworks.

56th IEEE-PES FUNDRAISER GOLF TOURNAMENT

November 2, 2013 in Rio Verde, AZ

Be sure to join us at Rio Verde Golf Club, located at 18731 E 4 Peaks Blvd, Rio Verde, AZ 85263, for a 1:00 PM Shotgun Start. The course is located 10 Minutes north of Fountain Hills. (480) 471-9420 http://www.rioverdecc.com/Map

This is the annual fundraiser for your IEEE-PES Chapter. The fee is $100 per player or $400 to sponsor a foursome. Be sure to come early and stay late as there will be free range balls beforehand and dinner afterwards. Cash prizes awarded for first place, second place, and third to last place teams. There will also be a Raffle, Skills Games, and Giveaways Galore.

Use this sheet to sign up either individually or for your team. You can either:

- Print out and complete, then mail the form with your payment
- Return this form electronically (insidesales@youngpower.com) and then send your payment.
- Send payments to: IEEE-PES
                                c/o Young Power
                                7505 E Greenway Road
                                Scottsdale, AZ 85260

You will be notified via email that your payment has been received and you are registered to participate. If you have any questions, please feel free to call us at (480) 991-9191.

Please provide all requested information, including email addresses for all team members.

TEAM/SPONSOR_____

Player _____ Dinner?_____

Email _____

Player _____ Dinner?_____

Email _____

Player _____ Dinner?_____

Email _____

Player _____ Dinner?_____

Email _____

Additional Dinner Guests: _____

To minimize waste and extra costs, we would like your help getting an accurate dinner count.

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 Member's Benefits

IEEE-USA's Free E-Books to Members

October Free E-Book

IEEE-USA E-Books is offering "Engineers Can Write! Thoughts on Writing from Contemporary Literary Engineers" this month free to IEEE members.

Award-winning author Tom Moran explores the similarities and differences found in writing and engineering; offers thoughts on how engineers can conceptualize their writing to improve their reports, articles, proposals and other documents; and shows why many engineers are able to write very well.

Each of the engineer authors Moran features has been successful in the world of literature -- poems, shorts stories, novels -- and their competence with language undermines any claims that engineers can't write.

"Many engineers are excellent writers, adroit at taking on technology's toughest challenges, and using language to clearly and cogently describe what they have learned," Moran writes. "Indeed, engineering's history has been marked by important works written clearly and competently by engineers."

"Engineers Can Write! Thoughts on Writing from Contemporary Literary Engineers" can be downloaded at www.ieeeusa.org/communications/ebooks/files/z382n9i/Engineers-Can-Write.pdf for free to IEEE members. The nonmember price is $9.99.

November Free E-Book

"The Best of Today's Engineer: On Innovation – Volume 1" is a compilation of some of IEEE-USA's top stories on innovation - what it means, what it is, how to do it, what to think about, how to achieve it, and how it might affect some aspect of engineering.

Topics include: Top 10 Innovation Tools for New Millennium Engineers; Is Innovation the Answer?; How the Government Refocused on Innovation and Competitiveness; and Engineer, Promote Thyself.

This e-book will be available free to members in November.

To purchase IEEE Members-only products, and to receive the member discount on eligible products, members must log in with their IEEE Web Account.

Call for Authors

IEEE-USA E-books seek authors to write an e-book, or e-book series, on career guidance and development topics. If you have expertise in a particular area that you're willing to share for the benefit of members, email your proposal to IEEE-USA Publishing Manager Georgia C. Stelluto (g.stelluto@ieee.org) and IEEE-USA E-Book Chair Gus Gaynor (g.gaynor@ieee.org).

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 206,000 engineering, computing and technology professionals who are U.S. members of IEEE.

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IEEE-USA Communications & Publishing
Phone: 1 202 530 8363
E-mail: s.richardson@ieee.org

GoogleApps@IEEE Now Available to IEEE Members

GoogleApps@IEEE is a suite of products offered to IEEE members to enhance peer-to-peer communications and collaboration. The suite of applications includes e-mail, calendaring, contacts, and document sharing along with other collaborative tools. 30G of available cloud storage memory is available for these applications. Learn more about http://www.ieee.org/googleapps

GoogleApps@IEEE is available to members at no additional cost, bringing access to:
- A unique IEEE e-mail address (e.g., John.A.Doe@ieee.org);
- Mail forwarding or e-mail inbox (Gmail);

- 30-gigabytes of shared storage (Gmail and Google Drive);
- 99.9 percent up time guaranteed by Google;
- Advertisement-free Gmail;
- Files stored in the cloud for easy sharing and access from anywhere via Google Drive.

Member Discounts

Flood Insurance for U.S. Members

Do you think you need flood insurance only if you live near water? Think again. Floods can be caused by heavy rainfall, melting snow, clogged drainage systems and broken levees. All it takes is a few inches of water to cause major damage to your home and belongings.
Dont get caught off guard. If you think youre at risk, consider protecting your home with a flood insurance policy. Although Liberty Mutuals home and renters policies do not cover flood losses, you can purchase flood insurance through FEMAs National Flood Insurance Program. To find out more information on coverage and premiums, visit www.fema.gov/business/nfip or contact your Liberty Mutual sales representative for assistance.

In the meantime, take these steps to protect your home from flood damage:
- Safeguard your important documents in a waterproof container.
- Keep gutters clear of debris.
- Landscape with native plants and vegetation that resist soil erosion.
- Leave the basement floor unfinished.
- Raise your washer, dryer, water heater, oil tank, furnace and electrical wiring at least a foot above your homes projected flood elevation.
- Install and maintain a sump pump.
- Install backflow valves and standpipes to prevent backed-up sewers.
- Install flood shields for basement windows and doors.
- Plan and practice a flood evacuation route with your family.

Keep in mind that there is a 30-day waiting period from date of purchase before a flood policy goes into effect. Don't delay; buy flood insurance today!

As an IEEE member, you are eligible for a discount on your auto, homeowners and renters insurance through Liberty Mutual. For more information about this program, please visit www.libertymutual.com/ieee or call 1-800-531-4958.

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Complimentary Member Discount Cuts Prescription Costs:

Prescription costs keep marching up. But as an IEEE member, you can drive them back down with a FREE discount card.

Allergy prescriptions for you or your children, Antibiotics when nasty colds turn into painful sinus infections. Medicines you take on a daily basis to keep health problems in check.

They all leave you exposed to the ever-increasing cost of today's prescription drugs. But as an IEEE member living in the United States or Puerto Rico, you have an option to help hold the cost of your prescriptions in line the complimentary IEEE Member Prescription Discount Card.

Simply request your FREE discount card at
http://www.ieeeinsurance.com/us/PersonalInsurance/HealthInsurance/DiscountPrescriptionCard.aspx and start saving.

How much could you save? That depends on your prescriptions and where youre buying them. In general, you can expect to save an average of 20 percent and as much as 50 percent by mail. When you consider that you pay nothing for this discount card . . . then add up the savings potential . . . it just makes sense to request this complimentary IEEE member discount card today at http://www.ieeeinsurance.com/us/PersonalInsurance/HealthInsurance/DiscountPrescriptionCard.aspx

This is NOT insurance. Discounts only available at participating pharmacies. Available in the United States and Puerto Rico.

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Technology Discounts

Looking for a computer for your home or small business? Need to back up your valuable digital files? Before you shop anywhere else, visit the http://www.ieee.org/membership_services/membership/discounts/technology.html where you will find well-known brands exclusively discounted for IEEE members. Check back often to view special promotions posted for additional savings.

Find out more about the FREE Technology Discounts at http://www.ieee.org/membership_services/membership/discounts/technology.html

Dues Renewal: A Time to Inspire the Future

The altruism and generosity of IEEE members and friends enabled the IEEE Foundation to award US$3 million last year to technology programs that:

- Empower the worlds brightest young minds;
- Encourage impactful ideas and creative solutions;
- Share the history and evolution of ground breaking ideas;

IEEE Foundation and IEEE thank all of you who have donated and shown a strong commitment to the founding ideas and principles of IEEE.

While renewing your IEEE Membership, take time to reflect on how your IEEE Membership has influenced your career and enhanced your opportunities. Then consider making a donation to support the programs and projects important to you. Giving through your IEEE renewal is just one way you can support the work of IEEE and continue to make a difference. You may choose to designate your donation, in any amount, to one or more funds listed in your renewal packet. You may also donate online at http://www.ieee.org/organizations/foundation/DonateOnline.html, anytime.

There is so much more that we can accomplish together to inspire the future and enable the impact of IEEE. Visit http://www.ieeefoundation.org/ and learn more about:
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- Donor recognition groups (http://www.ieee.org/organizations/foundation/donorrecognition.html) such as the IEEE Heritage Circle, the IEEE Goldsmith Legacy League, the Advocates Association and the Leadership Association;
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- making your gift electronically at http://www.ieee.org/organizations/foundation/DonateOnline.html