# The Valley Megaphone



Newsletter of the
Institute of Electrical and
Electronics Engineers, Inc.,
Phoenix Section
July 2014,
Volume XXVIII, Number 7

# Executive Committee 2014

### Chair

Barbara McMinn 602-371-6383 barbara.mcminn@aps.com

#### Vice Chair

Bruce Ladewig, 480-620-9291 bruceladewig@ieee.org

## Secretary

Surinder Tuli, 480-287-1437
Surinder.tuli@gmail.com

### Treasurer

Vivek Gupta, 480-734-0266 vmgupta@msn.com

### Past Chair

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

### Publicity

Mahesh Shah, 480-544-9438 mkshah@ieee.org

#### PACE

Vivek Gupta, 480-734-0266 vmqupta@msn.com

### Membership

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

### Student Activities

S.Diane Smith, 602-749-4601 <a href="mailto:sdianesmith@computer.org">sdianesmith@computer.org</a>

### Conferences

Brad Morantz, 480-348-5945 <u>Phx.Conf@yahoo.com</u>

#### **Awards**

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

### Inter-Society

Mike Andrews, 480-991-1619 m.andrews@ieee.org

#### Webmaster

Krishna Bharath 480-552-8913 kbharath@ieee.org

## In this Issue of the Valley Megaphone: Table of Contents

## (Please Click on the heading below to go directly to that page)

U – News	2
Student Branches	2
Upcoming Conferences	3
MTS Call for Papers	4
CPMT Phoenix Chapter	5
Communication Society	7
Computer Society	8
Power & Energy Society	
Waves & Devices	
Life Member Affinity Group	
EEE Young Professional	
EEE Phoenix Section News	
Phoenix Section Executive Committee Meeting	J15
Reliability Chapter Forming	
Phoenix Section LinkdIn Group	
Phoenix Section on Social Media	
EEE Membership Grade Advancement	
EEE Member's Benefit	17

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

https://www.facebook.com/IEEEPhoenixSection

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

for inclusion in the Section Calendar.

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

# IEEE Phoenix Section 2014 Annual Banquet pictures are available to view and download at

http://sites.ieee.org/phoenix/2014/03/03/pictures-from-the-2014-annual-banquet/

## **Chapters**

## Signal Processing & Communications

Pavan Turaga pturaga@asu.edu

## Computer Society

Jerry Crow jerry.crow@computer.org

## **CPMT Society**

Mahesh Shah 480-544-9438 mkshah@ieee.org

### **Education Chapter**

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

EMBS Chapter TBD

## **EMC Society**

Brett Gassaway, 480-926-3100 brettg@compliancetesting.com

### **Power & Energy Society**

Craig Smith craig.smith@aps.com

### Solid State Circuits

Mirembe Musisi-Nkambwe Mirembe@ieee.org

### Teacher-In-Service

Rickie Currens@att

Rickie.Currens@att.net

## Waves & Devices Society

Steve Rockwell
steve.rockwell@ieee.org

Life Members

#### Life Members

Les Daviet II lesdavietii@cs.com

### Women In Engineering

Shamala Chickamenahalli shamala.chickamenahalli@intel.com

### Young Professionals

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

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

## 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 <u>sdianesmith@computer.org</u> Student Activities Chair

## 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 <a href="mailto:sdianesmith@computer.org">sdianesmith@computer.org</a>

## Student Branches

ASU Main, Engineering

Chair: Jennifer Taggart 928-581-5198,

jennifer.taqqart@asu.edu Advisor: Cihan Tepedelenlioglu, 480-965-6623, <u>cihan@asu.edu</u>

**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 posti@erau.edu

# **U – Newsbytes**

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

This month we had a meeting and a presentation about the High altitude balloon experiments done by ASU and ERAU was shown at the monthly meeting. DR Cone and ten other persons attended the banquet in Phoenix. There was a lunch and learn held at the Hazy library (ERAU campus library) about the type of articles and media available for research from the IEEE in our library and how to access it. The group also sponsored a representative from labview to come and demonstrate their product for a large group of people.

Our group did sponsor an "egg drop" contest for campus engineering week. The Idea was to get students involved to design a device in which an egg can survive a drop from a 3 story building. The criteria for the contest was based on the weight, number of pieces of the device, and if the device hit the target. I do have pictures from the event if you would like to see them.

Thank you
Brenda Moerchen
Secretary, ERAU Chapter, Prescot





## **Upcoming Conferences in June in Region 6**

There are 11 conferences in Region 6 during the month of July. There are two in Oregon, 5 in California, 1 in Nevada, 1 in Hawaii, 2 in Alaska, and none in Arizona.

We are starting to work on plans for a Metro Area Workshop for Phoenix in March of next year (2015). If anyone would like to volunteer, please contact your society local chapter or myself at <a href="mailto:Phoenix.conferences@ieee.org">Phoenix.conferences@ieee.org</a>. If there are suggestions for topics or speakers, please contact the above mentioned officers.

Our goal is to provide solid education (with CEUs) and an opportunity to network and meet fellow engineers, all at an affordable price.

Look forward to seeing you there.

If you have any suggestions for speakers, or if your group is looking to have a conference in Arizona, please contact our new direct email Phoenix.Conferences@ieee.org





# Call for Papers 28<sup>th</sup> International Conference on Microelectronic Test Structures



March 23-26, 2015, Phoenix, Arizona USA

#### General Chair:

Larg Weiland PDF Solutions larg.weiland@pdf.com

#### Technical Chair:

Colin McAndrew
Freescale Semiconductor, Inc.
Colin.McAndrew@freescale.com

#### Tutorial Chair:

Brad Smith Freescale Semiconductor, Inc. Brad.Smith@Freescale.com

### Local Arrangements:

Colin McAndrew
Freescale Semiconductor, Inc
Colin.McAndrew@freescale.com

### Equipment Exhibition:

Bill Verzi
Agilent/Keysight Technologies
bill\_verzi@agilent.com

### Asian Representative:

Kunihiro Asada VLSI Design and Education Center University of Tokyo asada@silicon.u-tokyo.ac.jp

### European Representative:

Anthony Walton Scottish Microelectronic Centre University of Edinburgh Anthony.Walton@ee.ed.ac.uk

### USA Representative:

Loren Linholm linhlw@comcast.net

### Conference Manager:

Wendy Walker Widerkehr and Associates wwalker@widerkehr.com The 28th International Conference on Microelectronic Test Structures (ICMTS) will be held in Phoenix, Arizona, USA, bringing together designers and users of test structures to discuss recent developments and future directions. The conference will be held March 24-26, 2015, preceded by a one-day Tutorial Short Course on Microelectronic Test Structures on March 23. There will be an equipment exhibition relating to test structures and measurements. Original papers are solicited presenting new developments in test structures, as well as their implementation, measurement, and application, related to semiconductors, nanotechnology, and MEMS. A Best Paper award will be presented by the Technical Program Committee. The conference is sponsored by the IEEE Electron Devices Society and all published papers will be posted to IEEE Xplore®.

Topics of relevance to ICMTS include, but are not limited to:

**Material and Process Characterization:** Wafer material evaluation for SiGe, strained Si, Si-on-insulator, Ge, GaAs, GaN and other compounds. Resistivity, mobility, stress, contact resistance, dielectric, and interconnect measurements. Test structures and methods to evaluate new materials and devices, e.g. graphene and CNTs.

**Test structure design methods:** Flows for automated test structure design, generation, and verification; design-for-analysis, parameterized design, layout issues (grid, hierarchy, misalignment), switched arrays.

**Replicated Feature Metrology:** Level-to-level registration, overlay, CD uniformity and control, non-electrical characterization techniques, mask and reticle process control.

Manufacturing of Integrated Circuits and MEMS: Evaluation of individual and groups of integrated circuit, device, and MEMS process steps and elements: transistors, diodes, mechanical structures, device isolation, memory cells, and interconnect. Assessment of MMICs and RF components and products. Evaluation and optimization of standard cell macros and other circuits.

**Reliability and Product Failure Analysis:** Test structures for quality assurance, transistor, thin film, dielectric, and interconnect reliability, thermal monitoring and analysis, accelerated wafer level tests, wafer level burn-in, failure identification, reliability prediction.

Nanotechnology, Displays, and Emerging Devices: Test structures and methods to evaluate nanotechnology (materials and devices), displays, optoelectronic materials and devices, novel memories, and related materials.

(BIO-)MEMS, (BIO-)Sensors, and Actuators: Test structures for MEMS and micromachining including physical/chemical/optical/bio sensors, photonic devices, amorphous silicon films and devices.

**Device and Circuit Modeling, Parameter Extraction:** Model parameter extraction, RF device modeling, deembedding, pulsed measurements, DC and high frequency measurement techniques and applications.

**Technology R&D, Integration, and DFM:** Test structures for FEOL or BEOL evaluation, design rule determination, process uniformity and worst-case analysis, test structures to assess integration and new technologies, switched array test chips/devices for large scale evaluations and reduced pad count.

**Test Circuits:** Novel on-wafer circuits for characterization of manufacturing technologies, variability, yield, and performance. Circuits to simplify probing, improve measurement robustness, and reduce pad count.

Yield Enhancement, and Production Process Control: Yield enhancement structures and methods, critical area calculation, defect estimation structures and methods, yield modeling, evaluation of design-manufacturing interactions, place and route methodology, and statistical process control. Large-scale, many-component test arrays and multiplexing techniques for technology assessment.

**Test Structure Measurement Utilization Strategy:** Test equipment, probing and programmable testing for process diagnostics, optimizing test throughput, database and data analysis methods, statistical data analysis, expert systems and related techniques, including capacitance, voltage, current, resistance, optical, and thermal measurements.

Matching and Variability Test Structures: Matching and variability of components (transistors, resistors, capacitors, inductors) and layout for circuit applications and their evaluation. Characterization of identically designed components. Modeling of matching and variability.

Authors are asked to submit an abstract of up to four pages in PDF format (font-embedded). The first page **must** consist of a title, a 50-words summary, author name(s), the full address, fax number, and e-mail address of the lead author, and author preference for oral or poster session presentation, if any. The body of the abstract should be three pages or less consisting of one page of text (800 to 1000 words) and up to two pages containing major figures and tables. Please visit the ICMTS 2015 official web site <a href="icmts2015.pdf.com">icmts2015.pdf.com</a> for further information and paper submission. You may care to join the ICMTS group at <a href="www.linkedin.com">www.linkedin.com</a>.

The selection process will be based on the technical merit and will be highly weighted in favor of papers that have a high test structure content, include measured data and analysis, together with illustrations of the test structures involved. The submission deadline is **October 17, 2014**. Notice of paper acceptance, with instructions for manuscript preparation for the conference proceedings, will be sent to the authors of the papers selected for presentation by early December, 2014. The deadline for submission of the final paper will be January 20, 2015.

Details of the venue, hotel, registration, etc. will be posted at <a href="icmts2015.pdf.com">icmts2015.pdf.com</a> as they are finalized.

For further technical information, please contact the technical chair:

Colin McAndrew, Freescale Semiconductor, Inc., Colin.McAndrew@freescale.com



# IEEE Components, Packaging and Manufacturing Technology Society Phoenix Chapter

## 2014 Executive Committee for CPMT Chapter for IEEE-Phoenix Section

Position	Name	Phone	<b>Email Contact</b>
		Contact	
Chair	Dr. Mahesh K. Shah	(480) 544-9438	mkshah@ieee.org
Asst. Chair	Mr. Vivek Gupta	(480) 734-2366	vmgupta@msn.com
Secretary	Dr. Devarajan Balaraman	(480) 619-0944	iamgoinbiking@gmail.com
Treasurer	Dr. Vasudeva P. Atluri	(480) 227-8411	vpatluri@ieee.org
Program Chair	Mr. David Dougherty	(480) 245-8099	david.dougherty@freescale.com
Asst. Program Chair	Dr. Nageswara R. Janapala	(650) 213-6733	nageswara.r.janapala@intel.com
Tutorial Chair	Dr. Ashish Gupta	(480) 554-2409	ashish.x.gupta@intel.com
Asst. Tutorial Chair	Adel Elsherbini	(734) 686-2278	a.elsherbini@gmail.com
Workshop Chair &	Dr. Vasudeva P. Atluri	(480) 227-8411	vpatluri@ieee.org
Publicity			
Website Co-Chair	Huiyang Fei		Huiyang.H.Fei@ieee.org
Website Co-Chair	Bharat Penmecha	(480) 552 2511	bharat.penmecha@ieee.org

## **Tentative Schedule for Monthly Seminars**

We are working to arrange monthly Seminars on topics of interest to our members. If you have suggestion for topics and/or speakers please contact any of the executive committee members listed above.

# July 16 – Dr. Dev Gupta - Improved PoP Package w/o TSVs can compete with 2.5/3D Packages using TSVs

**August – Dr. Darrel Frear – Packaging Needs for Automotive Radar** 

September – Dr. Jon Harris – Packaging for LED Lighting

October - Dr. Stuart Bowden - Solar Cells

November – Dr. Jaynal Molla – Plating for Electronic Packaging

## Additional Activities –Tutorial and Workshop

Phoenix section is planning to hold a Half Day tutorial on the topic of **Reliability Engineering** in early Fall. In addition we are working with other Society Chapters to hold a workshop on **Emerging Device and Packaging Technology** in late November or Early December. Please wait for announcements in near future



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



# IEEE Components, Packaging and Manufacturing Technology Society Phoenix Chapter

Wednesday, July 16th, 2014 at 5:30 PM

# Improved PoP Package w/o TSVs can compete with 2.5/3D Packages using TSVs Dr. Dev Gupta

Chief Technical Officer

APSTL ( Advanced Packaging & Systems Technology Laboratories ) LLC

Scottsdale, AZ 85262 USA
dgupta@apstl.com

### **ABSTRACT**

The industry has been awaiting maturation of 3D packaging technologies as a high - performance & versatile alternative to further integration on a single die. So far die stacking & interconnecting with Through Silicon Vias (TSVs) have received most attention. The commercial adoption of 3D TSVs has been limited to cases where its use has resulted in performance benefits and reduced costs, e.g. BSI modules used in some Smart Phones. Cost reduction has been a key factor behind the adoption of 2.5D for small-scale production of high-end FPGAs for which a single large chip is replaced by several smaller chips in a multi-chip module rather than a single large chip and thus reduce yield losses in the Wafer Fab. Such cost reduction has not yet been possible for CPU-Memory combinations in 3D stacks. This is not simply because of the high initial cost or supply-chain issues typical of new technologies, but also due to unresolved technical issues related to choice of material and process flow for 3D TSVs. These concerns, along with stress and thermal issues that affect device performance in 3D stacks, will be discussed. Lower-risk alternatives that can be implemented even in consumer systems e.g. Smart Phones were evaluated. To identify "low hanging fruits", analyses was carried out to simulate bandwidth and power needed to transfer data in 3D stacks and 2.5D modules using TSVs as well as several packages that do not have to use TSVs for application to Smart Phones. PoP ( Package-on-Package ), the poor man's 3D is ubiquitous in Smart Phones. This talk will describe efforts underway at APSTL to improve PoP package electrical performance e.g. power efficiency (battery life) and bandwidth (video rate) to approach that of 3-d stacking with TSVs but without using any TSVs on the active dies. Improved performance of the resulting "Super PoP" will be discussed and contrasted with other industry efforts to improve the PoP package.

### **BIOGRAPHY**

**Dr. Dev Gupta** has been pioneering and innovating various types of Advanced Packaging technologies e.g. Flip Chip (electroplated solder bump, bonding robots, pillar and micro - pillar bumps, organic substrates) at Motorola and Intel that have now become industry standards. At Intel, Dr. Gupta's Team succeeded in dramatically improving the yield & reliability of Organic Substrates, thus enabling the widespread adoption of flip chip technology. At APSTL he is responsible for the development and licensing of new Advanced Packaging technologies e.g. various types of bumping & substrate, their assembly (as well as turnkey engineering of fabs for them), and now the "Super PoP" technology that he will discuss in his talk.

**Date:** Wednesday, July 16<sup>th</sup>, 2014

Location: Spectrum 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.

Agenda: 5:30–6:00 PM: Social/Refreshments, 6:00–7:00 PM: Presentation, 7:00 PM: Dinner

(Pizza and Soda will be provided by the IEEE Phoenix Section CPMT Society 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 5:45 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
 David Dougherty
 (480) 413-6923

 Adel Elsherbini
 (734) 686-2278
 Ashish Gupta
 (480) 554-2409
 Vivek Gupta
 (480) 734-0266

 Nageswara Rao J.(650) 213-6733
 Mahesh Shah
 (480) 544-9438



## SP-COM Phoenix Chapter

## Please join our Google Group!

We have recently started a google group to be able to send you more timely announcements via email for upcoming events and talks. Please sign up for timely email announcements at the below link

https://groups.google.com/d/forum/ieee-sp-com-phoenix-chapter

We are limiting member permissions only to receiving emails posted by the group owner - the SP-COM chapter chair.

Technical Co-Sponsorship by the IEEE Signal Processing and Communications Chapter, Phoenix Section

We continue to post meeting notices on IEEE vtools at (<a href="https://meetings.vtools.ieee.org/main">https://meetings.vtools.ieee.org/main</a>)



# Phoenix Chapter of the IEEE Computer Society July, 2014

## <u>News</u>

- Chapter meeting dates for the two remaining meetings this year are Sep 3<sup>rd</sup> and Nov 19<sup>th</sup>. Both dates are Wednesdays, but note that the 19<sup>th</sup> is third Wednesday. Both meetings will be held at DeVry University. Mark your calendars to save the dates.
- There have been a number of inquiries regarding the possibility of again holding meetings in the east valley as we did for most of last year. We are actively seeking a suitable venue in the east valley. Once secured, we will begin holding every other meeting at the new location.
- On July 2<sup>nd</sup> Jack Ring of OntoPilot gave a presentation on "The Fundamental Foundation for Successful Systems" in which he detailed a unique new methodology, developed locally by OntoPilot, for software integrity assurance. The presentation was well received a fact evidenced by the numerous questions and the post-presentation discussions.

## **Future Events**

- On September 3<sup>rd</sup> we expect to have a speaker from ASU giving a presentation on attack vectors for authentication by picture image.
- On November 19th Hal Berghel, our presenter in March, will return to provide us a presentation on "The Modern Surveillance State".

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).

Visit the CS Chapter website for the latest information: <a href="http://ewh.ieee.org/r6/phoenix/compsociety/">http://ewh.ieee.org/r6/phoenix/compsociety/</a>. For brief announcements regarding upcoming events we are also on Twitter: @IEEECS\_PHX

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

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)



# 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:
  - o <a href="http://www.youtube.com/watch?v=BRKM4lpo\_tk">http://www.youtube.com/watch?v=BRKM4lpo\_tk</a>
  - 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

# 57" ANNUAL IEEE-PES FUNDRAISING GOLF TOURNAMENT



**NOVEMBER 15. 2014** 

Be sure to join us at Rio Verde Golf Club, located at 18731 E 4 Peaks Blvd, Rio Verde, AZ 85263, for a 12:45 PM Shotgun Start. The course is located 10 Minutes north of Fountain Hills. (480) 471-9420 <a href="http://www.rioverdecc.com/Map">http://www.rioverdecc.com/Map</a>

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 (<a href="mailto:distribution@gorman-co.com">distribution@gorman-co.com</a>) and then send your payment.
- Send payments to: IEEE-PES

c/o Gorman Company

4819 35<sup>th</sup> Street Phoenix AZ 85040

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 (602) 470-0400.

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 dinne	er count



## INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

# WAVES AND DEVICES

## PHOENIX CHAPTER





<u>Date</u>	Location	Topic / Title	<u>Speaker</u>	<u>Affiliation</u>	IEEE Society
29-Jan	ASU Brickyard	Expanding your knowledge of Laser Fusion and Optical Accelerators	Ken Barat	Consultant	Photonics
6-Mar	ASU Goldwater	Embrace Circuit Nonlinearity to get Transmitter Linearity and Energy Efficiency	Earl McCune	MTT DML	Microwaves
4-Apr	Agilent	Current and Future Trends in Photovoltaics Technologies	Christina Honsburg	ASU	Electron Devices
25-Apr	Freescale	Bio Medical Devices	Jennifer Christen	ASU	Electron Devices
1-May	ASU	Software Defined Radio	Hossein Hashemi	USC	Microwaves/ Electron Devices
22- May	ASU	Antennas	Kathleen L. Melde	UofA	Antennas
Sept	TBD	Device Modeling	Colin McAndre w	Freescale	Microwaves / Electron Devices
Oct	TBD	Antenna System	Ron Lavin	Boeing Corp.	Antennas
Nov	TBD	Microwave Board Materials	John Coonrod	Rogers Corp	Microwaves



## Technical & Administrative Meeting October 14, 2014

**Program Presentation: TBD** 

Meeting Agenda: TBD

Where: SRP's PERA Club Bighorn Room,

1 East Continental Drive, Tempe, AZ

Continental is West of 68th St., ½ mile south of McDowell Road

Enter the Private PERA Club and follow drive to large parking lot. Big Horn Room is the

most South east building off parking.

When: Tuesday, October 14, 2014, 11:00am – 1:00pm, Registration fee is \$15. This fee will include lunch provided by the PERA Club. Lunch will be: to be voted on

## **RSVP**:

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.

**Activities:** Technical meetings scheduled in February, May, October, and December. Elections are held at the December meeting.

**Future Technical Meetings**: All meeting are scheduled at the SRP PERA CLUB. It is suggested you put these dates on your calendar to attend our meetings.

- Tuesday, October 14, 2014
- Tuesday, December 9, 2014

### Officers:

Chair Leslie Daviet II lesdavietii@cs.com

Vice Chair Position is Vacant
Secretary Tom Lundquist Tom.Lundquist@ieee.org

Treasurer Leslie Daviet II <u>lesdavietii@cs.com</u>
Program Ronald L. Sprague, <u>r.sprague@ieee.org</u>

Past Chair A. Barry Cummings abarrycummings@gmail.com



## IEEE Young Professionals (formerly GOLD) Phoenix Section Executive Board

- Chairman: Shafiul "Jacky" Islam (shafiul.islam@intel.com)
- Vice Chair: Jennifer Taggart (jennifer.taggart@asu.edu)
- Secretary/Webmaster: Joseph Caglio (joseph.m.caglio@intel.com)
- Treasurer: Ashley Meredith (ashley.meredith@aps.com)

## May 28, 2014, IEEE Young Professionals Phoenix Art Museum Trip

As our social event for May, we explored Phoenix Art Museum as a group.



Organizer: Ashley Meredith (ashley.meredith@aps.com)

## June 20, 2014, IEEE Phoenix Young Professionals Movie Night

We had a movie night on June 20<sup>th</sup> at 7:40pm at Harkins Theater Arizona Mills, 5000 Arizona Mills Cir. Tempe, AZ 85282.

There were about 12 attendees who had the chance to mingle with fellow young professionals. Unfortunately, "Edge of Tomorrow" was not showing at that time and as a group, we voted to watch "Godzilla" as an alternative.

Organizer: Ashley Meredith (ashley.meredith@aps.com)

## June 29, 2014, Officers' Meeting

All of the four officers attended an officers' meeting on June 29 from 7:00pm to 9:00pm over Google Hangouts to discuss our event plan and budget for Fall. We are expecting to have a Career Mixer, Speaker Series, Social events, and a Virtual Leadership Conference. We also discussed about sending out surveys, website, collaboration tools, social media, and Polo / T-Shirts. We will be providing more details as we finalize and implement our plans.

Organizer: Shafiul "Jacky" Islam (shafiul.islam@intel.com)

## July 4, 2014, Independence Day (United States) Celebration

Come celebrate the 4th of July at the Tempe Beach Park party with IEEE Young Professionals Phoenix Section. Enjoy music and food from various vendors. Tickets can be bought early for \$5 at all Fry's Food Stores until July 3rd. Tickets can also be bought at the gate for \$8. We will meet at the main entrance at 7pm. More information can be found at http://www.tempe4th.com/index.asp with locations for parking spots and road closures. Friends and family are welcome to attend! Hope to see you there!

Please take a moment to register (so that we have a roster of attendees) at:

https://meetings.vtools.ieee.org/meeting\_view/list\_meeting/27045

Please contact Joseph Caglio (joseph.m.caglio@intel.com) with questions.



## **Executive Committee Meeting**

No meeting of Executive Committee in July & August Normal meetings are on first Tuesday of the month from 6:00 PM to 8:00 PM The Airport Hilton Phoenix,

2435 S 47th St. Phoenix, AZ 85034, (480) 894-1600.

## **2014 Executive Committee**

Chair: Barbara McMinn
Vice Chair: Bruce Ladewig
Secretary: Surinder Tuli
Treasurer: Vivek Gupta
Past Chair: Charles Weitzel

## **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

## **IEEE Phoenix Section Annual Banquet 2014 Photos are Posted at:**

http://sites.ieee.org/phoenix/2014/03/03/pictures-from-the-2014-annual-banquet/

## <u>IEEE Phoenix Section – Forming Reliability Chapter</u> Reliability Chapter Forming

The IEEE Reliability Society (IEEE RS) plans to collaborate with the IEEE Phoenix Section, as well as, the IEEE Sections in Tucson and Sierra Vista/Ft Huachuca in forming this new state-wide IEEE Reliability Chapter. The Reliability Chapter will focus on 3 meetings in the first 6 months after being created. The topics that may be discussed will include new IEEE Reliability Standards (e.g., IEEE 1633), new software reliability techniques and reliability growth techniques. The IEEE RS plans to rotate Chapter meetings between the 3 state locations. If you are a member of the IEEE, but not an IEEE-RS member, you could join the society for \$35 and be a charter member to help in the formation of this new Chapter. If you are an IEEE RS member or interested in Reliability Society, please contact Lou Gullo at Louis.Gullo@ieee.org.

## **IEEE Senior Member and Fellow Grade**

IEEE Phoenix Section Membership Development would like to nominate eligible IEEE Members from the Section to Senior Member and Fellow Grades. Please review the requirements at <a href="https://www.ieee.org">www.ieee.org</a> for eligibility.

Eligible candidates are requested to send in their resumes to Dr. Vasudeva P. Atluri, Membership Development Coordinator, at <a href="mailto:vpatluri@ieee.org">vpatluri@ieee.org</a> and Dr. Charles E. Weitzel, Section Chair, at <a href="mailto:c.weitzel@ieee.org">c.weitzel@ieee.org</a> for consideration.

# Phoenix Section LinkedIn Group

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

You can also go to IEEE Phoenix Section LinkdIn page by clicking in button on the <u>IEEE</u> Phoenix Section home page

## **IEEE Phoenix Section Ventures into Social Media**

You can access the web page three ways:

Use the URL: <a href="https://www.facebook.com/lEEEPhoenixSection">https://www.facebook.com/lEEEPhoenixSection</a>

Click on the Facebook logo I link from IEEE Phoenix section home page.

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.

## 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 <a href="www.ieee.org">www.ieee.org</a>. Please contact IEEE Phoenix Section Membership Development Chair, Dr. Vasudeva P. Atluri, at <a href="wpatluri@ieee.org">wpatluri@ieee.org</a> for additional information.

## **Enhanced Senior Member Application Launched**

Effective 29 July 2011, IEEE Admission and Advancement launched a <u>new Senior Member Application</u>. 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. <u>View the new Senior Member application</u>.

## **IEEE Member's Benefits**

IEEE-USA's Free E-Books to Members Give Perspectives on Leading & Managing & Guidance on Survivor Planning

## July Free E-Book

IEEE-USA will offer "Leading and Managing Engineering and Technology – Book 1: Perspectives on Leading and Managing" free to IEEE members in July.

Author and IEEE Life Fellow Gerard H. "Gus" Gaynor writes that the competencies needed to lead and manage continue to be misunderstood. As a society, he says, we focus on leadership demonstrated by politicians, industry executives and individual effort related to some major accomplishment.

"Perspectives on Leading and Managing" takes a step beyond the usual focus on leadership to explore the following questions:

- \* Are leading and managing different, the same or complementary?
- \* Is it possible to lead without managing?
- \* Is it possible to manage without leading?
- \* Does the technical professional have a greater role in leading and managing?

"Leading and Managing Engineering and Technology, Book 1: Perspectives on Leading and Managing" can be downloaded at <a href="http://www.ieeeusa.org/communications/ebooks/files/jul14/28vniz3/Leading-and-Managing-Engineering-and-Technology-Book-1.pdf">http://www.ieeeusa.org/communications/ebooks/files/jul14/28vniz3/Leading-and-Managing-Engineering-and-Technology-Book-1.pdf</a> for free to IEEE members. The nonmember cost is \$9.99.

To purchase IEEE member-only products, and to receive the member discount on eligible products, you must log in with your IEEE Web account.

### **August Free E-Book**

In August, IEEE-USA will offer "Survivor Planning: What Every Spouse Should Know," by the late George F. McClure.

In this practical reference, McClure urges readers "not to leave your family in the dark, digging to find important documents and information. Life has to go on after a spouse, partner, or parent passes away. Dealing with the myriad of decision processes immediately following a death in the family is a confusing ordeal."

"Survivor Planning" gives guidance in advance planning, retirement benefits, wills, living trusts and finances. It also has a checklist that will help you organize all the important information you will need and Websites where you can find additional assistance.

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

### **Call for Authors**

IEEE-USA E-books seek authors to write an e-book, or an e-book series, on career guidance and development topics. If you have an e-book idea that will benefit members on a particular topic of expertise, email your proposal to IEEE-USA Publishing Manager Georgia C. Stelluto at <a href="mailto:s.telluto@ieee.org">g.stelluto@ieee.org</a>, and IEEE-USA Communications Committee Chair Gus Gaynor at <a href="mailto:s.gaynor@ieee.org">g.gaynor@ieee.org</a>.

IEEE-USA serves the public good and promotes the careers and public policy interests of more than 200,000 engineering, computing and technology professionals who are U.S. members of IEEE.

Web: www.ieeeusa.org

Facebook: <a href="www.facebook.com/ieeeusa">www.facebook.com/ieeeusa</a>
Twitter: <a href="www.twitter.com/ieeeusa">www.twitter.com/ieeeusa</a>
Join IEEE: <a href="www.ieee.org/join">www.ieee.org/join</a>

Contact: Sharon C. Richardson, Coordinator 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 <a href="http://www.ieee.org/googleapps">http://www.ieee.org/googleapps</a>

GoogleApps@IEEE is available to members at no additional cost, bringing access to:

- A unique IEEE e-mail address (e.g., <a href="mailto:John.A.Doe@ieee.org">John.A.Doe@ieee.org</a>);
- 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.