The Valley Megaphone

Executive Committee - 2012

Chair
Ralph Hogan, 480-774-8227
rhogan@ieee.org

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

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

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

Past Chair
Jim Hudson, 480-855-8987
jim.hudson@srpnet.com

Publicity
Surinder Tuli, 480-554-8275
Surinder.tuli@gmail.com

PACE
Mike Andrews, 602-682-5440
m.andrews@ieee.org

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

Student Activities
S.Diane Smith
602-749-4601
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Conferences
Guoliang Xue
480-965-6218
xue@asu.edu

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

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

Webmaster
Henning Braunisch
480-552-0844
braunisch@ieee.org

In this Issue of the Valley Megaphone:

Contacts:

Contents:

**IEEE Phoenix Section on-line updates can be found at http://ewh.ieee.org/r6/phoenix/ and on LinkedIn at:
http://www.linkedin.com/groups?gid=2765918**
Please send announcements for the *Valley Megaphone* to Surinder Tuli at surinder.tuli@gmail.com and to Russ Kinner at r.kinner@ieee.org for inclusion in the Section Calendar.

The IEEE Banquet pictures are up, see http://ewh.ieee.org/r6/phoenix/AnnualBanquet.htm

Chapters

Signal Processing & Communications
David Frakes, 480-727-9284
dfrakes@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
Chaturvedi Gogineni
cgoginen@asu.edu

Power & Energy Society
Scott Freymuller 480-991-9191
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Solid State Circuits
Mohamed Arafa
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Teacher-In-Service
John Purchase
jpurchase@cox.net

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

Life Members
Barry Cummings
abarrycummings@gmail.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: Saurabh Naik,
480-252-0504, **svnaik@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: Donovan Benedict
Don4ben5@gmail.com
Advisor: Diane Smith
dsmith2@devry.edu

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

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

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

U – Newsbytes

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

Start your own MicroMouse and compete for cash prizes!
The Section has a full tournament sized MicroMouse maze. Funding for your project may be available. For details contact the Section Student Activities Chair, S. Diane Smith sdianesmith@computer.org

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

Scholarship Applications Deadline is January 15, 2012

Applications due: January 15, 2012 with Awardees to be recognized at the IEEE Phoenix Section Annual Banquet on February 11, 2012. Awards apply to full-time graduate and undergraduate students who are IEEE members in EE, CSE, EET, CET, and CS majors. The application form can be found at the following website:
http://ewh.ieee.org/r6/phoenix/Scholarships.htm

◆IEEE

Phoenix Chapter of IEEE Signal Processing Society and Communications Society

Thanks to all of the attendees who have made this year's technical meetings so successful. More to come in the coming months...

Please contact Chapter Chair David Frakes (dfrakes@asu.edu) to volunteer or propose a speaker for upcoming meetings.

IEEE CPMT Society Phoenix Chapter is seeking volunteers

IEEE CPMT Society Phoenix Chapter is seeking volunteers to serve as officers for 2012. Please contact Chapter Chair, Dr. Vasudeva P. Atluri, at vpatluri@ieee.org for additional information and if interested in serving as an Chapter Officer.

IEEE Power and Energy Society
Phoenix Chapter

News and Announcements:

- Want to know more about IEEE PES? 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
- Scholarships for undergraduates pursuing electric power and energy are available through the IEEE PES Scholarship Plus Initiative:
  - http://www.ee-scholarship.org/
- 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
- In 2011, our Phoenix PES Chapter supported:
  - the TISP/EIC Program with a $3,000 grant
  - the Future City Competition with $1,000 sponsorship
  - two university Electrical Engineering students with $1,000 scholarships

February 2012 Luncheon Meeting:

Date:	Thursday, February 16, 2012
Time:	11:30 am - 11:45 noon: Registration
	11:45 noon: Lunch
	12:15 pm: Program
Location:	Radisson Hotel Phoenix Airport North (map)
	427 North 44th Street
	Phoenix, AZ
Speaker:	Ali Amirali, Starwood Energy
Topic:	Battery Storage: Advancements in Flow Technology
Cost:	$5.00 (No cost if you are a college student)
Reservations:	Contact Nancy or Stacy at (480) 991-9191 Ext 10 or Ext 16 or use this link: http://ewh.ieee.org/soc/pes/phoenix/lunch.php

More information regarding the IEEE PES Phoenix Chapter can be found at:
http://ewh.ieee.org/soc/pes/phoenix/index.php

IEEE

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

IEEE SOLID-STATE CIRCUITS SOCIETY
Where ICs are in IEEE

Solid State Circuits Society - Phoenix Chapter

Meeting Free & Open to Non-IEEE Members
4:30pm to 5:30pm, Wednesday, Feb 29th, 2012
Freescale Semiconductor Inc., 2100 E. Elliot, Tempe. Dan Noble Conference room (map)

A Multi-band Multi-mode Transmitter without Drive Amplifier for Mobile Cellular Applications

Dr. Omid Oliaei and Mr. Mark Kirschenmann Fujitsu Semiconductor Wireless Products

Abstract:

The 4G LTE standard is the next progressive step in wireless communications as it promises to benchmark a data throughput level that is 10 times relative to the levels delivered in 3G. It does, however, introduce a unique set of design constraints that would challenge any deep submicron CMOS RFIC technology. In 2011, Fujitsu Semiconductor Wireless Products began commercial shipment of the world's first 2G/3G/4G cellular transceiver RFIC. It is a full SAW-less design requiring no external LNAs or inter-stage SAWs on RX or TX paths. It supports GSM / EDGE, CDMA, WCDMA, LTE-FDD, and LTE-TDD operation in frequency bands 1-21, 24, 25, and 33-40. The integration of 4G LTE functionality to Fujitsu's existing transceiver solution has enabled a state-of-the-art multi-band, multi-standard radio solution that is at the forefront of the global industry. In this presentation, we will discuss the technical requirements for transmitters used in mobile cellular applications and, in particular, 4G LTE handsets where effects such as counter-intermodulation distortion pose a significant risk to satisfying all global regulatory standards. The operation of a commercially available multi-mode multi-band transmitter that is designed in a 90nm CMOS process and that operates from 700 MHz to 2.7GHz will be detailed.

Biography

Omid Oliaei received the Ph.D. degree in electronics and telecommunications from École Nationale Supérieure des Télécommunications (ENST), Paris, France, in 1997. He has held industrial positions with Motorola Inc. and Freescale Semiconductor, and faculty position with the University of Massachusetts, Amherst. He is now with Fujitsu Semiconductor Wireless Products Inc., Tempe, AZ.

Mark Kirschenmann received the B.Sc. degree in electrical engineering from the South Dakota School of Mines & Technology, Rapid City, S.D., in 1984. He has held industrial positions at Motorola Inc. and Freescale Semiconductor where he worked on military electronics, Iridium payload, and various RF transceivers for cellular handsets. Currently, he is RF Systems Engineer at Fujitsu Semiconductor Wireless Products Inc. where his current interests include LTE-Advanced radio design, and related RF transmitter and synthesizer topologies.

IEEE Phoenix Section Life Member Affinity Group

Celebrating 125 Years
of Engineering the Future

2012 February Technical Meeting

Topic: **"The Federal Engineering Salary Control Program."**

Speaker: **Ron Sprague, P.E., Principal Engineer.** Ron holds a BSEE, in Power from the University of Missouri. He is a registered P.E. in Arizona, California, and Idaho. His experience includes; Electrical Engineering Consultant, Systems Engineer, Forensic Investigator. Ron worked for General Electric Company as a technical resource for the provision of application engineering services, and new product development. Services have been to federal, state, and municipal agencies, and to commercial, institutional, industrial and architectural clients. Ron operated as an owner of a Professional Engineer consulting firm and a Licensed General Contractor. Ron has done work in power distribution, interior, exterior, overhead, underground, from 12 volts DC to 138 kilovolts. He is a Senior Member of the IEEE.

When: Tuesday, February 14, 2012, 11:00am – 1:00pm Lunch cost is $10.

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:
rlsprague@q.com at least a few days before the meeting.

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

About IEEE Phoenix Section Life Member Affinity Group:

The IEEE Phoenix Section Life Member Affinity Group was organized to enable IEEE Life Members to retain active IEEE associations, contribute to the social good in their communities, advance IEEE's professional interests and enjoy each other's company.

An IEEE member automatically becomes an IEEE "Life Member" status when at least 65 years of age and the sum of your current age and years of membership is 100. For more details use the link
http://www.ieee.org/web/volunteers/mga/home/life_members_committee/index.html

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

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

Future Technical Meetings:

- Monday, February 14, 2012   SRP PERA CLUB
- Tuesday, May 15, 2012   SRP PERA CLUB
- Tuesday, October 16, 2012   SRP PERA CLUB
- Tuesday, December 4, 2012   SRP PERA CLUB

Officers: The results of the annual election of officers, held December 7, 2011 meeting, resulted in the following.

Chair	A. Barry Cummings	*Barry.Cummings@srpnet.com*
Vice Chair	Michel Ebertin	*Michel@ebertin.net*
Secretary	Tom Lundquist	Tom-LCS@COX.NET
Treasurer	Leslie Daviet II	*lesdavietii@cs.com*
Program Chair	Ronald L. Sprague, P.E.	rlsprague@q.com
Past Chair	C Bruce Johnson	*cbj@johnsonscientificgroup.com*

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

The next meeting of the IEEE Phoenix Section **Women in Engineering (WIE) Affinity Group (AG)** will be on Wednesday, February 15, 2012, at Arizona State University. We are very pleased to welcome two outstanding speakers for the evening. First, Dr. Ramalatha Marimuthu, who is the 2011 IEEE WIE International Committee Chair, is visiting the Phoenix area and will address the Phoenix WIE AG. Dr. Marimuthu has been teaching engineering for 25 years and, also, is a very active volunteer who often speaks on the topic of "humanitarian technology."

Our second speaker for the evening is Kathryn Murphy. Ms. Murphy has a B.S. and M.S. in engineering from Rensselaer Polytechnic Institute and over 30 years of business experience, including serving as President and CEO of Corning Gilbert, a wholly owned subsidiary of Corning, Inc. Ms. Murphy is presently a consultant specializing in development of business strategies and plans. Her focus is on entrepreneurial start-up companies and non-profits.

Both Dr. Marimuthu and Ms. Murphy will share their advice and experiences with the Phoenix audience at the Feb. 15 meeting. The logistics for this meeting are:

- Date: February 15, 2012 (Wednesday)
- Time: 5:30 pm – 8:30 pm
- Location: Arizona State University, GWC487
- Agenda:
    - 5:30: Light Refreshments, Networking & Introductions
    - 6:00: 1st Speaker - Dr. Ramalatha Marimuthu, IEEE WIE 2011 Committee Chair
    - 6:30: 2nd Speaker - Kathryn Murphy, Consultant, Business Development Strategies
    - 7:30: Wrap-up

If you would like to be added to our distribution list for further information about this and future events, please contact Lesley Polka (lesley.a.polka@intel.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 organizing committee members:

Chair: Shamala Chickamenahalli (shamala@ieee.org)
Vice-Chair: Joy Harris (jharris@exponent.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.

Phoenix Chapter of the IEEE Computer Society

February, 2012

News

- Our January presentation, "The Four Types of Locks", by Austin Appel was well attended and well received. Attendees had many questions, a fact that affirms the appeal of the presentation.

- We continue to build our program schedule for the remainder of the year. We have a confirmed speaker for March and a tentative program for May.

Future Events

- March 7 – Chapter meeting, DeVry University; speaker Paul Crowley, "Advanced Topics on Optical Media"

  Paul Crowley is President and Founder of InfinaDyne, a Chandler-based consulting enterprise focused on optical media issues. Paul is a computer professional with over 25 years experience in programming computers of all types producing commercial products for embedded systems, mainframe and PC's Since 1994, Paul has focused on PC and embedded system software development, specifically related to CD and DVD technology. This has included CD recording, accessing CD-ROM data for PC and Playstation games and in-vehicle navigation systems.InfinaDyne also performs optical media forensic work for law enforcement nationwide. Paul is an expert on all aspects of optical media and will discuss various topics including optical media physical characteristics, reading marginal discs, and reading cracked/broken discs.

- May 2 – Chapter meeting, DeVry University, speaker TBD

- July 11 – Chapter meeting, DeVry University, speaker TBD

- September 12 – Chapter meeting, DeVry University, speaker TBD

- November 7 – Chapter meeting, DeVry University, speaker TBD

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

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

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

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

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

IEEE Phoenix Waves and Devices Chapter
2012 Technical Workshop on

Millimeter Wave to Terahertz Devices and Technologies

Call for Papers

This one-day workshop will focus on devices and technologies for emerging applications in the upper millimeter wave and lower terahertz (submillimeter) electromagnetic spectrum, and will include invited experts from industry and academia as well as submitted contributions. Abstracts are requested for consideration on any of the represented topics.

Workshop Topics

April 27, 2012
8:00 am to 5:00 pm
University Club
Arizona State University

General Co-Chair:
    Steve Rockwell
    steve.rockwell@ieee.org
General Co-Chair:
    Robert Anderson
    robert.j.anderson@q.com

Phoenix IEEE Waves & Devices Chapter:
http://ewh.ieee.org/r6/phoenix/wad/

DEVICES
    Semiconductors
    Vacuum Tubes
    Simulation & Modeling
PACKAGING
    Waveguide
    Integrated
    Interconnects
SYSTEMS
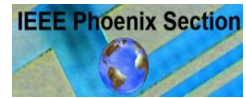   Antennas
    Architectures
    Spectrum

Abstract Submissions: Two pages (topic, summary of significant results and conclusions – WORD or PDF files only). Abstract must include author names, affiliations, addresses, and e-mail address of lead author.

Submission Deadline:	February 17, 2012
Submitting Address:	Michael.Goryll@asu.edu
Acceptance Notification:	March 5, 2012
Final Presentation Due:	April 13, 2012

IEEE Phoenix Waves and Devices Chapter
2012 Technical Workshop on

Millimeter Wave to Terahertz Devices and Technologies

Friday, April 27, 2012
8:00 am to 5:00 pm
University Club, Arizona State University

PRELIMINARY PROGRAM

REGISTRATION:
https://meetings.vtools.ieee.org/meeting_view/list_meeting/9117

IEEE Member $30
Non-IEEE Member $60
IEEE Student $20
non-IEEE Student $40
Sponsor (7 registrations) $350
Vendor (1 table, 2 reg's)......$350

General Co-Chair:
  Steve Rockwell, General Dynamics
  steve.rockwell@ieee.org
  480-241-9891
General Co-Chair:
  Rudy Emrick, Orbital Sciences
  rudyemrick@ieee.org

Technical Committee:
  Michael Goryll, Arizona State
  Mel Miller, Freescale
Publicity/Website Committee:
  Peter Aaen, Freescale
Registration/Finance Committee:
  Sergio Pacheco, Freescale
  Haolu Xie, Fujitsu

Phoenix IEEE Waves & Devices Chapter:
http://ewh.ieee.org/r6/phoenix/wad/

INVITED SPEAKER	AFFILIATION	TOPIC / TITLE
Dr. Peter Siegel	Jet Propulsion Laboratory	THz for body screening: What you see and what you don't
Dr. Gabriel Rebeiz	University of California San Diego	RF MEMs for MM-Wave & Terahertz ICs
Dr. Stephen Goodnick	Arizona State University	Sub millimeter Wave Device Modeling
Dr. Ali Sadri	Intel Corp; WiGig Alliance	WiGig: The Evolution of Multigigabit Connectivity
Dr. Chris Walker	University of Arizona	THz Instrumentation for Astronomy
Dr. Ed Preisler	TowerJazz	Advanced SiGe BiCMOS Process Technologies for MM-Wave Applications
Dr. Michael Wanke	Sandia National Laboratories	Terahertz Radio Transceivers
Dr. Doug Lockie	GigaBeam	MM-Wave Long Range PTP Radios and Markets
Dr. Bhaskar Banerjee	University of Texas at Dallas	CMOS MM-Wave & Terahertz IC Design
Dr. Christopher Groppi	Arizona State University	Millimeter and Terahertz Device Development

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
WAVES AND DEVICES - Phoenix Chapter
Electron Devices Society

Meeting Free & Open to Non-IEEE Members

4:00 to 5:00PM, Thursday, February 16th, 2012
Freescale Semiconductor
2100 E. Elliot Rd., Tempe, AZ
Group Conference Room

Electron Devices Society Distinguished Lecturer Program
From millibits to Terabits per second and Beyond - Over 60 years of Innovation

Professor Renuka P. Jindal, Past President of IEEE Electron Devices Society
Dept. of Electrical and Computer Engineering, Univ. of Louisiana at Lafayette, Lafayette, LA

Abstract

The meteoric advancement in telecommunication technology and communications bandwidths has been made possible by three key developments over the last 60 years. The first of these was the demonstration of the point-contact bipolar transistor in 1947 which started the solid-state revolution. This was followed by the demonstration of the MOS Field-Effect-Transistor in 1960. The second key contributor was the development of Information Theory in 1948. The third key development which ignited this fire was the invention of laser in 1958 with a working demonstration in 1960. Serious efforts to transform this understanding into high-performance lightwave systems started by the design of integrated electronics using MOS technology around 1980. However, initial attempts at boosting receiver sensitivity and data-rates were seriously hampered by a lack of understanding of the noise performance of the MOS device. Author's contributions in this area not only led to a deeper understanding of the noise behavior of MOS devices but also produced an order of magnitude improvement in their performance. This set the stage for MOS to become the technology of choice for lightwave and now low-cost wireless terminal applications. In this talk, starting from smoke signals at millibits per second, we will trace these events from a historical perspective to see how these key technologies lead to the development of modern wireless and optical networks of terabit capacity with petabits looming in sight.

Biography: Renuka P. Jindal (S'77-M'81-SM'85-F'91) received his Ph.D. degree in Electrical Engineering from University of Minnesota 1981 with minors in Physics and Materials Science. Upon graduation, he joined Bell Laboratories at Murray Hill, New Jersey. His experience at Bell Labs for over 22 years bridged both technical and administrative roles. In addition, he established and taught RF IC design courses at Rutgers University. In fall 2002, Dr. Jindal accepted the position as William and Mary Hansen Hall Board of Regents Eminent Scholar Endowed Chair at University of Louisiana, at Lafayette. Dr. Jindal received the Distinguished Technical Staff Award from Bell Labs in 1989. In December 2000 he received the IEEE 3rd Millennium Medal. From 2000 to 2008 he served as the Vice-President of Publications for the IEEE Electron Devices Society (EDS). From 2010 to 2011, Dr. Jindal served as the President of IEEE Electron Devices Society. Now, he continues to actively be involved with the Society as Junior Past President.

Date: Thursday, Feb 16th, 2012

Time: 4:00-5:00 PM Presentations (Pizza will be served following the Seminar)

Location: Group Conference Rm, Bldg 94, Freescale Semiconductor, 2100 E. Elliot Rd., Tempe, AZ
Use Freescale Main Entrance (South) facing Elliot Road

For more information, contact: Steve Rockwell (WAD Chapter Chair) (480) 241-9891 steve.rockwell@ieee.org
Adel Elsherbini (Chapter Publicity) (734) 686-2278 a.elsherbini@ieee.org

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

IEEE Phoenix Section Annual Banquet 2012

IEEE

December 31, 2011

Dear IEEE Phoenix Section Member:

Greetings and best wishes for 2012! This letter is being mailed to give you key highlights of the Section's activities in 2011 and information on current and upcoming activities.

- The IEEE Phoenix Section continued to maintain its tradition of serving the IEEE Members and the community at large. Our Chapters, Affinity Groups, Student Branches, and Standing Committees have been very active in various areas such as technical seminars, professional development, community education, industry visits, and job search.

- We made significant effort towards increasing student awareness of science, technology, engineering, and math. The IEEE Phoenix Section Teacher In-Service Program (TISP) committee continued its very successful middle school teaching program. The retiree volunteers in this program conduct classroom teaching and hands-on science and engineering projects using special demo kits. Many metro Phoenix area schools participated in the program and the demand for the projects has been phenomenal. This past year he IEEE TSP program has rebranded itself as the Arizona Science Lab and has secured a long term location at the former Meyer Elementary School in the Tempe Elementary School District. The leadership in this program continue to pursue other sources of revenue.

- We sponsored the Future City Competition by providing financial support as well as judges for the Section sponsored *Best Communications System Award*. The Section continues its sponsorship for the competition to be held on January 28, 2012.

- The Phoenix Section also continues to award scholarships to undergraduate and graduate students who are IEEE Members and study at Phoenix Section schools including ASU, DeVry, Embry-Riddle, and NAU. The scholarship fund is based on contributions from individual donors, the Phoenix Section, and local Chapters.

- Our up-to-date website ewh.ieee.org/r6/phoenix provides information on the key IEEE related activities within our area. The IEEE Phoenix Section monthly newsletter, the *Valley Megaphone*, continues to be electronically published at ewh.ieee.org/r6/phoenix to trim costs. An e-mail notification is sent every month to members upon this posting. In 2010 we also launched a Phoenix Section group on LinkedIn to facilitate professional networking.

- E-mail and Web postings are the predominant communication mode for the Section. E-mail is sent to members through IEEE e-Notice to the e-mail addresses listed in the IEEE membership database. To obtain a Web account or update your e-mail and mailing preferences, please visit myieee.org or call 1-800-678-IEEE (4333). The Phoenix Section officers do not have authority for these operations.

- The Phoenix Section Executive Committee (ExCom) meets on the first Tuesday of every month, except July and August, from 6:00 – 8:00 PM at the Hilton Phoenix Airport (2435 S. 47th Street, Phoenix, Arizona 85034; Tel. 480-894-1600; except January). Members are invited to attend and volunteering opportunities are available.

- The Section Annual Banquet is scheduled for **Saturday, February 11, 2012** at the Phoenix Airport Hilton. The program includes a social hour followed by dinner, keynote presentation and awards ceremony. The Section ExCom encourages all Members and their guests to attend the banquet. Registration details are included with this letter and can also be found at ewh.ieee.org/r6/phoenix. Registrations must be received by **Bruce Ladewig** (Tel. 480-620-9291, e-mail: bruceladewig@ieee.org) by **Friday, February 3, 2012.**

- The elected Section officers for the year 2012 are:

  Chair: **Ralph Hogan**   Vice Chair: **Charles Weitzel**   Secretary: **Barbara McMinn**
  Treasurer: **Bruce Ladewig**   Past Chair: **Jim Hudson**

We hope to see you at the Phoenix Section Annual Banquet on February 12, 2011. Thank you for your continued support!

James Hudson
IEEE Phoenix Section Chair – 2011

◆IEEE   IEEE PHOENIX SECTION   ◆IEEE
ANNUAL BANQUET
Saturday, February 11, 2012

Hilton Phoenix Airport
2435 South 47th Street,
Phoenix, Az 85034-6410
Tel: 1-480-894-1600
Telephone: (602) 273-7373

Back to the original location

Program: 6:00 PM – 7:00 PM Registration and Social Hour with Cash Bar
7:00 PM – 8:30 PM Dinner and Keynote Presentation
8:30 PM – 9:30 PM Section Awards Program

Keynote Speaker: **Dr. Tirupalavanam G. Ganesh**
Program Director for Engineering Education PHD Concentration
Arizona State University

Keynote Presentation: Inspiring Learning in Science and Engineering through Personal and
Social Relevance: K12 to University

SECTION AWARDS PROGRAM

Member
Young Engineer of the Year, Engineer of the Year

Advanced Member Grades
Fellows, Senior Members

Society Chapters & Affinity Groups
Individuals, Teams, Organizations, Best Society Chapter

Non-IEEE Member
Contributions to the Engineering Profession

Corporate
Large Company of the Year, Small Company of the Year

Education
Outstanding Student Branch & Student Branch Leader
Outstanding Faculty & Pre-College Educator
Phoenix Section Student Scholarships

Special Chair
Chair Special Recognition, 2010 Section Officers

Future City Competition
Phoenix Section Best Communications System Award

IEEE Phoenix Section 2012 Annual Banquet Organizing Committee

Vasudeva P. Atluri	(480) 227-8411	Henning Braunisch	(480) 552-0844
Ralph Hogan	(480) 774-8227	Jim Hudson	(602) 236-6459
Charles Weitzel	(480) 345-6089		

For more information visit our website at ewh.ieee.org/r6/phoenix

IEEE

IEEE PHOENIX SECTION ANNUAL BANQUET
Saturday, February 11, 2012

IEEE

Hilton Phoenix Airport
2435 South 47th Street,
Phoenix, Az 85034-6410
Tel: 1-480-894-1600
Telephone: (602) 273-7373

Back to the original location

Registration Form

Banquet Fees:

IEEE Members and Guests	$35.00
IEEE Student Members	$25.00
IEEE Student Member Guests	$35.00
IEEE Society Chapter Table	$350.00*
Corporate Sponsorship	$500.00**

*Table sits 10 persons.
**Sponsorship includes recognition at program, table of ten for dinner, and space for a display.
For additional information please visit ewh.ieee.org/r6/phoenix.

Please mail the completed registration form along with your check, payable to **IEEE Phoenix Section**, to:

Bruce Ladewig
4518 East Hopi Street
Phoenix AZ 85044
Tel.: 480-620-9291
E-mail: bruceladewig@ieee.org

The deadline for receiving the registration fee is **February 3, 2012**.

Banquet Schedule:

Registration / Social Hour with Cash Bar:	6:00 PM – 7:00 PM
Dinner / Keynote Presentation:	7:00 PM – 8:30 PM
Section Awards Program:	8:30 PM – 9:30 PM

Social Hour Hors D'Oeuvres:
Fajita Station   International & Domestic
Assorted Sushi Station   Cheese Display

Cash Bar:
Sodas and Alcoholic Beverages

Dinner Choices:
1) Petit Filet & Prosciutto Wrapped Shrimp with Potatoes and Asparagus
2) Salmon Florentine Roulade with Mashed Potatoes and Baby Carrots
3) Wild Rice Breast of Chicken stuffed with Mozzarella Cheese, Granny Smith Apples, Peppers and Basil & Wild Rice Pilaf
Dinners include: Field Greens Salad with Choices of Dressings and Warm Dinner Rolls with Butter.

Dessert:
Four Layer Dark Chocolate Cake

Please limit registration to two persons per form; attach multiple forms if necessary. Detach below and mail with check.

IEEE PHOENIX SECTION ANNUAL BANQUET – 2012 Registration
(Please complete all sections of the form by typing or printing in bold and capital letters)

Name:

Guest Name:

Address:

Telephone Number: **E-mail:**

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

Dinner Choice (please select one per person):

(1) ____ Petit Filet & Prosciutto Wrapped Shrimp
(2) ____ Wild Rice Breast of Chicken
(3) ____ Salmon Florentine Roulade

IEEE Phoenix Section Annual Banquet Saturday, February 11, 2012

This Year's Venue:

Hilton Phoenix Airport 2435 South 47th Street, Phoenix, Az 85034-6410 Tel: (480) 894-1600

If driving, exit the Airport east to Route 153 (south). Drive south approximately 1/2 mile to University Drive. Turn left (east) and drive 1/4 mile to 47th Place. Turn left; the hotel is approximately 2 blocks north on the left side of the street.
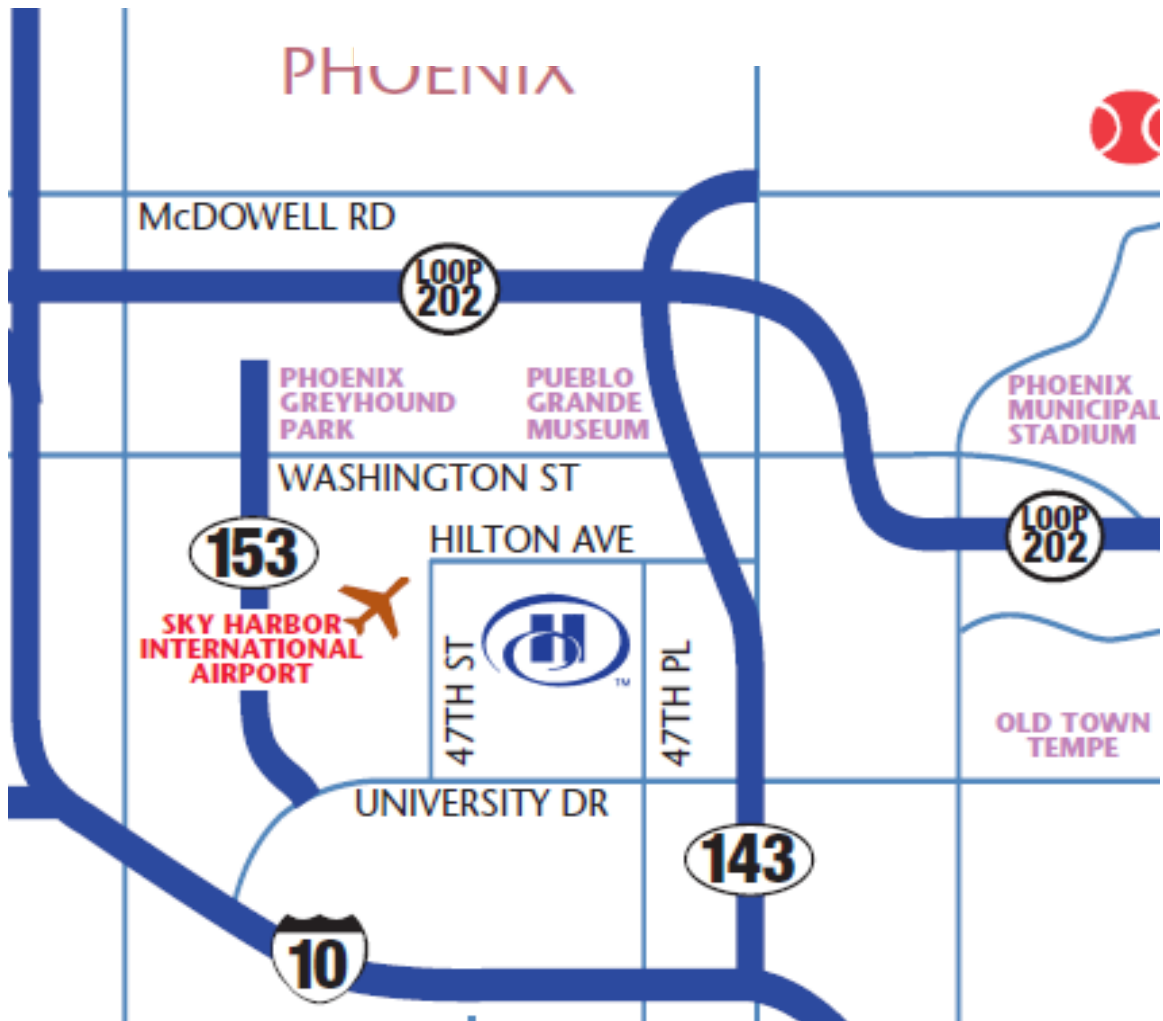
THE ARIZONA SCIENCE LAB

www.arizonasciencelab.org

IEEE TISP/ASL MEMBER POSITION DESCRIPTION

For the past three years since February 2009, the Phoenix Section of the IEEE has been running a Teacher In Service Program / Arizona Science Lab (IEEE TISP/ASL) activity with the grade 5 thru' 9 schools in the Phoenix Metro area. The primary objective of the TISP/ASL is to encourage grade 5 - 9 students to become interested in science, technology, engineering and math (STEM) and to pursue studies and a career in STEM. The goal is to reverse the widely acknowledged continuous downward trend of the number of students opting for studies and careers in STEM. The secondary objective is to encourage retired engineers and scientists, employed engineers and scientists, retired teachers, university engineering students, and anyone with an interest in science and a practical aptitude to become engaged with the students and share their knowledge, expertise and passion for engineering and science with them.

To accomplish these two objectives TISP/ASL uses teams of 6 – 8 volunteers to put on fully provisioned project-based science lesson plans for grade 5 – 9 schools throughout the Phoenix metro area, with all the volunteers, equipment and supplies being provided at no cost to the teacher or school or students.

This year we teamed with the Tempe Elementary School District No. 3 and the Discovery Triangle consortium to establish a new "Arizona Science Lab" in the Meyer School facility in Tempe, where the schools now come for intensive STEM workshop lasting 4 hours in one-day instead of us going to the schools as in the past.

See two short videos at these links: ASL Rockets Class November 2011 1080p - YouTube
ASL SailAway Class November 2011 360p - YouTube

Position Description:

TISP/ASL Members are volunteers who provide academic and career support to grade 5 thru' 9 students during one day Workshops in the TISP/ASL "Arizona Science Lab." Members teach students science and help them perform experiments and construct projects that reinforce the science they have been taught. Members advise students on studies and careers in science and engineering. In each workshop there are two different positions available:

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

Qualifications & Responsibilities:

- Retired or employed engineer or scientist or teacher, or university engineering or science student, or anyone with an interest in science and an aptitude for hands-on activities
- Enthusiasm for science, technology, engineering and math (STEM)
- Desire to share knowledge and experience with grade 5 thru' 9 students

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- Desire to help students learn and enjoy science
- 1 year overall commitment preferred
- Commit one day in a week at least twice a month as a Workshop Teacher or Project Supporter
- Actively participate in ASL Group meetings to review program status, discuss issues and ideas, review lesson plans, etc.
- Complete Arizona State required criminal background check and Independently Verified Fingerprint (IVP) clearance (processing fee will be paid by TISP/ASL)

TISP/ASL Provided Training and Orientation:

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

Locations for Workshops:

- Exclusively in the TISP/ASL "Arizona Science Lab" at the Meyer School facility in Tempe
  - 2615 South Dorsey Ln, Tempe, AZ 85282-2799

Benefits:

- Access to free trainings and workshops
- Opportunity to make a difference in a child's life and in your community
- Share the excitement and "Wow Factor" the students have when they complete and test their project
- Be a small part of helping create a better world for tomorrow ⸻ students will remember these workshops and your help and advice for a very long time!

The "Wow!" Factor In The ASL Lessons
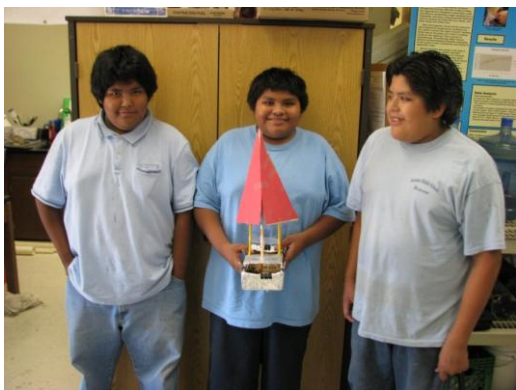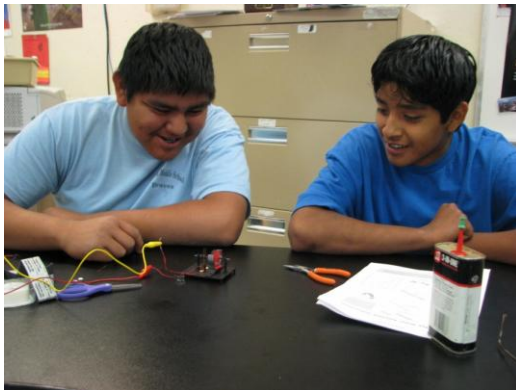
Contact Information: **John Purchase**   **ASL Group Leader**   **jpurchase@cox.net**
                                      Michel EbertinASL Volunteer Coordinator   **michel@ebertin.net**
                                      Tom Innes   **ASL Metrics Manager**   **tom.innes@att.net**

"Helping Students Transfer What Is Learned In The Classroom To The World Beyond"

2012 IEEE Phoenix Section Calendar

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

Phoenix Section Executive Committee Meeting

Venue: Phoenix Airport Hilton 2435 S 47th St, Phoenix, AZ, 85034 (map)
Tel.: 480-804-6017

More Info: Meetings are held on the first Tuesday of the month, 6–8 PM.
- Except for July & August

All interested IEEE members are welcome to attend.

Contact: **Ralph Hogan, 480-774-8227**
rhogan@ieee.org

"IEEE Phoenix Section Survey

IEEE Phoenix Section Executive Committee is requesting all IEEE Phoenix Section Members to provide their valuable inputs to help with continuous improvement of section activities. The survey can be accessed at www.ewh.ieee.org/r6/phoenix. Please download the survey and send by email to IEEE Phoenix Section Secretary, Dr. Chuck Weitzel, at c.weitzel@ieee.org. Your support in this matter will be greatly appreciated."

IEEE Membership Grade Advancement

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

Enhanced Senior Member Application Launched

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

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

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

IEEE-USA Government Fellowships:

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

The congressional fellowship consists of an appointment to the personal staff of a U.S. Senator or Congressman, or to the professional staff of a Congressional Committee. The Fellow along with the Congressional sponsor and IEEE-USA, negotiates a starting date, although IEEE-USA recommends that Fellowship terms run from January 1st to December 31st. For an application Kit for the 2013 Congressional Fellowship Program, visit:

http://ieeeusa.org/policy/govfel/documents/cfappkit13_000.doc

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

http://ieeeusa.org/policy/govfel/documents/Stateappkit13.doc

The postmark application deadline for 2013 Fellowships is 16 March 2012. For more information, visit: http://www.ieeeusa.org/policy/govfel/default.asp

Washington Internships for Students of Engineering (WISE)

SUMMER 2012 PROGRAM Monday, 4 June - Friday, 3 August:
WISE seeks applications from outstanding engineering students who display evidence of leadership skills and have a keen interest in public policy. Minority students are encouraged to apply.

Applicants should select a sponsoring society(s), fill out an application form, write two (2) brief essays in response to questions, arrange for two (2)faculty references, and forward an official transcript. The deadline for Summer 2012 applications is December 31, 2011. For more info and application forms, please visit: http://wise-intern.org/application/index.html

"…one of the best summers of my life. One which truly transformed my dreams and goals. ….when I left D.C. I really wanted to instill in my fellow engineers the appreciation of the interaction between public policy and engineering." -- Marc Canellas, WISE 2011

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IEEE-USA E-Book on Transition from School to Work to be Offered Free as Special Benefit to IEEE Members

WASHINGTON (31 October 2011) -- As a special benefit of IEEE membership for November, IEEE-USA is offering a free e-book, "Engineer's Guide to Lifelong Employability: The Transition from School to Work." This e-book, prepared by the IEEE-USA Employment and Career Services Committee, provides a road map for the student preparing to enter the job market -- what employers are looking for, how they can best find a job and what career paths are open to a new grad. Topics include:

* Finding a Job the Old-Fashioned Way

* Networking

* The Campus Interview

* Making up Your Mind

* Four Career Paths

* Business -- Big or Small?

* A Non-Technology Company

"Demand for new BSEEs may be soaring, but so are employer's standards and expectations," writes Jean Eason, IEEE-USA Employment and Career Services Committee member. "Good grades and technical expertise aren't enough anymore."

From Nov. 1 through Nov. 30, "Engineer's Guide to Lifelong Employability: The Transition from School to Work" can be downloaded at www.ieeeusa.org/communications/ebooks for free to IEEE Members. The nonmember price is $5.99. Members can purchase other IEEE-USA E-Books at deeply discounted prices and download other free e-books. In December the free publication will be book three in the "Engineer's Guide to Lifelong Employability" series: "What Are You Worth?"

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 Treasurer, Russ Kinner at 602-997-2353 or e-mail: r.kinner@ieee.org

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Phoenix Section LinkedIn Group

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