The Valley Megaphone



Newsletter of the **Institute of Electrical and Electronics Engineers, Inc., Phoenix Section** October, 2015 Volume XXIX, Number 10

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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	5
CPMT Phoenix Chapter	11
Communication_Society	
Computer Society	14
Waves & Devices	
Life Member Affinity Group	17
Young professional Phoenix Section	19
IEEE Phoenix Section News	21
Phoenix Section Executive Committee Meeting	23
Phoenix Section LinkdIn Group	24
Phoenix Section on Social Media	24
IEEE Membership Grade Advancement	25
IEEE Member's Benefit	

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 and on Facebook at:

https://www.facebook.com/IEEEPhoenixSection

Please send announcements for the Valley Megaphone to Wei Xu at Wei.Dr.Xu@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)

Chapters

Signal Processing & Communications

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Computer Society

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CPMT Society

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> **EMBS Chapter** TBD

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Waves & Devices Society

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Women In Engineering

Shamala Chickamenahalli, 480-704-4186 shamala@cox.net

Young Professionals

Jennifer Taggart, 928-581-5198 jennifer.taggart@asu.edu

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

Update from DeVry Phoenix-Engineering Student Branch

The IEEE Student Branch and Computer Society at DeVry University, Phoenix are co-sponsoring and co-managing with the University a Science Technology Engineering and Math (S.T.E.M.) exhibit at the 2015 Arizona State Fair. We have a 24 x 48 foot space that will house various high school and collegiate STEM projects often representing Capstone activities. In addition, four STEM workshops will be conducted by the students: Cyber Security ("Can You Hack It?"); personal computer repair ("DIY Computer Fixes"); beta-test student designed simulations ("Would you like to play a game?"); and breadboard kit building ("Make your own Night Light" and "Hidden Buzzer"). The static displays will be visible the duration of the Fair. The workshops are scheduled and published and will occur on the four weekends of the Fair. Section members and their families and friends are invited to stop by the exhibit and join us in the fun at the Arizona State Fair!

Roger S. Gulledge Counselor, IEEE Student Branch DeVry University rgulledge@devry.edu

Student Branches

ASU Main, Engineering

Chair: Phoebe Henson 480-888-6396, pqhenson@asu.edu Advisor: Cihan Tepedelenlioglu, 480-965-6623, cihan@asu.edu

ASU Main, Computer Society

Chair: TBD Advisor: Guoliang Xue 480-965-6218, <u>xue@asu.edu</u>

ASU Polytechnic

Chair: Josh Carroll ikcarrol@asu.edu Elizabeth Long

Elizabeth.a.lonq@asu.edu
Advisor: : Dr. John M. Parsey, Jr.,
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John.Parsey@asu.edu

DeVry, Phoenix - Engineering

Chair: Diego Hernandez
dhernan249@qmail.com
Advisor: Roger S. Gulledge
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rgulledge@devry.edu
Advisor: Deanna Davis
602-749-4500
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DeVry, Phoenix – Computer Society Chair: TBD

Past Chair: Zak Burgess Advisor: Roger S. Gulledge 602-749-4586 rgulledge@devry.edu Advisor: Deanna Davis 602-749-4500 ddavis1@devry.edu

NAU, Engineering

Chair: Jeremy Johnson 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

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 and defense, computer forensics, information security, cyber-physical and trustworthy systems, and net-centric computing, embedded systems, autonomous systems, and physical computing. Significant industrial, entrepreneurial and/or teaching experience would strengthen a candidate's credentials, but recent graduates are encouraged to apply.

Apply online at www.erau.edu/jobs and search for positions at Prescott. Contact Professor Post at john.post@erau.edu for further information.

Update from DeVry Phoenix-Engineering Student Branch

The DeVry University IEEE Student Branch was happy to host the IEEE Computer Society Phoenix Chapter bimonthly meeting in August. We look forward to hosting more of these meetings in the future. If any IEEE group would like to utilize the space available at DeVry, please feel free to contact one of the officers or the Faculty advisor. The student branch is in full swing planning an exhibition for the 2015 Arizona State Fair. This will be a S.T.E.M. display and series of workshops, sponsored by the Student Branch and DeVry University. We are tripling the size of the exhibit we had at last year's Fair. 2014 focused on projects from DeVry's Senior Project Fair and grade school through high school student projects. This year we will add several hands-on workshops that will run Friday-Sunday every weekend while the fair is open. Currently there are five workshops planned: PC Maintenance & Repair, Game-simulation Programming, Hackfest, Cyber security for the home user, and Basic Electronic circuit builds. We hope to draw attention to the S.T.E.M. disciplines and encourage young adults to pursue education and careers in these expanding fields. If any IEEE group or individual would like to offer advice, resources or display materials, please contact Hannah Sprague. This month is also election time at DeVry and we look forward to Diego Hernandez taking the reigns as Chair of the Student Branch.

Hannah Sprague
Past Chair, IEEE DeVry Student Branch
hspragueIEEE@gmail.com



Arizona State Fair 2014 S.T.E.M. Display

Update from Embry-Riddle Student Branch

The Embry-Riddle Aeronautical University IEEE Student Branch would like to send an update of their activities in the month of April. Our chapter hosted a SPAx on April 14th, focusing on career development. About twenty students and several faculty members were in attendance at the event. Two professors from the university spoke about their experiences in industry and gave advice on how to have successful careers. At the last meeting of the year students received the polos they had ordered. The new officers were also introduced to the rest of the members in attendance.



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Upcoming Conferences in Region 6

Hello IEEE Student Members!

Region 6 Global Humanitarian Technology Conference in Seattle will be held on October 8 to 11, 2015

2015 37th Electrical Overstress/Electrostatic Discharge Symposium (EOS/ESD) will be held on Sep 27-Oct 2, 2015

2015 IEEE 61st Holm Conference on Electrical Contacts (Holm 2015) will be held on Oct 11-14, 2015

2015 IEEE 24th Electrical Performance of Electronic Packaging and Systems (EPEPS) will be held on Oct 25-28, 2015

2015 IEEE Workshop on Automatic Speech Recognition and Understanding (ASRU) will be held Dec 13 to 16, 2015

2016 IEEE 66th Electronic Components and Technology Conference (ECTC) will be held on May 28-Jun 5, 2016

2016 15th IEEE Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems (ITherm) will be held on May 31 – Jun 3, 2016

Message from the Director: Your Investment in IEEE Region 6 by Tom Coughlin, IEEE Region 6 Director

The IEEE annual election starts on August 17, 2015 and continues until October 1, 2015. There are many candidates running for important offices in the IEEE and depending upon which societies and affinity groups you belong to there many be many of these folks who you can choose for these offices. Your vote is important in determining the future of the IEEE so please inform yourself on the elections and candidates and vote. Note that the IEEE Board of Directors removed the Constitutional Amendment that was to appear on the August ballot at their June Board meeting. Some resources for voting are given below:

IEEE Annual Election Home Page: http://www.ieee.org/about/corporate/election/index.html
Election Candidate Information: http://www.ieee.org/about/corporate/election/index.html

Message from the Director: The New Region 6 Conferences by Tom Coughlin, IEEE Region 6 Director

IEEE Region 6 was well funded for many years by a longstanding electronic component and device conference and trade show called Wescon. This show was one of the major electronics conferences in the world and ran for decades and provided lots of funding for Region 6, the Los Angeles and San Francisco Bay Area Councils and all the sections in Region 6. Other IEEE Regions had similar electronics shows that helped to fund their operations.

By the late 1990's it was clear that Wescon was losing its relevance in a changing world that was more about software and new ways for humans to interact with each other and where electronics hardware was becoming more and more integrated. This was, after all, the age of the Internet Bubble.

At the same time the manufacturing of high technology electronic devices and equipment was moving from countries in North America and Europe who had dominated the production of high technology for decades to Asia and other lower manufacturing cost environments. As a consequence of the change from hardware to software dominated electronics and the movement of manufacturing out of North America, Wescon lost many of its former exhibitors and attendees. In 2005 the last Wescon Conference was held at the Santa Clara Convention Center.

The demise of Wescon brought about the end of the gravy train that funded many Region 6 activities, both social and technical. In 2004, for the first time, Region 6 started to receive a \$1 assessment from all region members to help replace some of the incoming money lost from Wescon. For several years after the peak years and eventual death of Wescon there were no big Region 6 events and the Region focused on working with a much smaller budget and finding ways to spend what it had to accomplish as much as possible.

This started to change by around 2010 when some Region 6 activists began to think about starting new types of conferences. The goal was not to do strictly technology events and thus perhaps stray more into the activities of the technical societies but to do events focused on broader social and technical issues as well as the needs of our members.

The first of these new Region 6 conferences was the Global Humanitarian Conference (GHTC) that was first held in Seattle, WA in 2011 (and since then moved to San Jose, CA and then back to Seattle). This was followed by the Conference on Sustainable Technologies (SusTech) that started in 2013 and 2014 in Portland, Oregon (and which was held in Ogden Utah in 2015). In January 2015 the first Rising Stars Conference was started by Region 6 in Las Vegas to provide networking opportunities with companies and resources for Student Members and Young Professionals (the 2016 event will also be held in January 2016 just before the annual CES). Later in 2015 the online Career and Talent Expo was started and continues to run monthly, providing resources for job hunting and connections with employers who are looking for talent.

Our new style conferences are meant to support our members needs as well as the IEEE goal of Advancing Technology for the Benefit of Humanity. Volunteers like you put on these events. We hope that you will support and participate in our conferences and other events, these are put on for you, our members, as well as the broader world. We are also working to streamline and better organize the way that we put these events on as well as publicize them in order to help our dedicated volunteers maximize their time and achieve the greatest possible success in working on and organizing these events.

Our next Region 6 event is the 2016 GHTC that will be in Seattle, Washington October 8-11, 2015. There is a great program planned with internationally renowned speakers talking about the application of technology to achieve humanitarian goals to make life better for all and to prepare for and respond rapidly to emergencies. You can check out the agenda and register at http://www.ieeeghtc.org/registration/

We hope to see you at future Region 6 Conferences, and if you have the energy and interest, work with you to host and organize our existing conferences and perhaps start new ones where that makes sense on important topics for our members and the world at large.

Tom Coughlin, Region 6 Director



IEEE PHOENIX SECTION



Annual Banquet - Saturday, February 13th, 2016

Hilton Phoenix Airport, 2435 South 47th Street, Phoenix, Arizona 85034

Keynote Presentation

Title: Are there plenty more fish in the sea?

Speaker: Dr. David A. Demer

Senior Scientist and Leader, Advanced Survey Technologies Program
National Oceanic and Atmospheric Administration
8901 La Jolla Shores Drive
La Jolla, CA, 92037

Abstract

Most people are consuming more fish and are paying more for it. Less of it is wild caught and more is from aquaculture. Wild fish populations depend on ecosystem productivity, which is effected by a variety of forces such as El Niño, the Pacific Decadal Oscillation, climate change, ocean acidification, pollution, and fishing. These factors can change fish distributions, damage habitats, and alter biodiversity and ecological functions. In this context, we will explore the living resources in two of the most productive ecosystems on Earth: the Scotia Sea in the Southern Ocean, off the Antarctic Peninsula; and the California Current off the west coast of North America. We will learn how a variety of optical and acoustic instruments, and manned and autonomous vehicles are used to probe these remote and often inaccessible regions. In the process of counting and mapping exploited fish, we will touch on the complex interactions of climate, weather, seabed and oceanographic environments, avian and marine prey and predators, and fishers. We may enhance our appreciation for the effect the world ocean has on humanity, and vice-versa.

Speaker Biography



Dr. David A. Demer earned a B.S. in Electrical and Computer Engineering (ECE) from University of Arizona in 1986, worked as a Product Engineer for Intel Corporation from 1986 to 1989, received a Hertz Foundation Fellowship in 1989, and was awarded a Ph.D. in Applied Ocean Science / ECE from Scripps Institution of Oceanography (SIO), University of California at San Diego in 1994. He began his career with the National Oceanic and Atmospheric Administration at the Southwest Fisheries Science Center (SWFSC) as a Research Engineer with the Antarctic Ecosystems Research Division in 1990. He became

the Leader of SWFSC's Advanced Survey Technologies Program (AST) in 1999, a Research Associate with the Marine Physical Laboratory at SIO in 2000, a Research Associate with the Integrative Oceanography Division at SIO in 2007, Guest Editor for the ICES Journal of Marine Science (JMS) in 2009, Review Editor for the JMS in 2012, and Senior Scientist at the SWFSC in 2010. Presently, he continues to lead the AST, acoustic-trawl surveys of fish and zooplankton, and the development and application of new marine and riverine sampling instruments and techniques. Over the last 25 years, Dr. Demer has designed and conducted investigations of zooplankton and fish stocks, predator-prey interactions, and ecosystems along the west coast of North America from the Sea of Cortes to the Bering Sea; along the east coast from the Gulf of Mexico to the Gulf of Maine; in the Irish, Ligurian, and Red Seas, off South Africa, and in the Southern Ocean.



IEEE PHOENIX SECTION



Annual Banquet - Saturday, February 13th, 2016

Hilton Phoenix Airport, 2435 South 47th Street, Phoenix, Arizona 85034

Banquet Agenda

Registration / Social Hour: 5:30 PM - 6:30 PMSit-Down Dinner: 6:30 PM - 7:15 PMSection Program: 7:15 PM - 8:00 PMKeynote Presentation: 8:00 PM - 8:30 PMAwards Presentation: 8:30 PM - 9:15 PMChange of Section Officers: 9:15 PM - 9:30 PM

Business Attire is recommended

Banquet Web Links

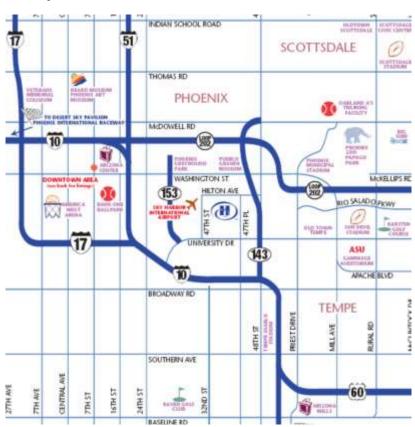
Complete Banquet Information along with Banquet Registration: http://sites.ieee.org/phoenix/ Banquet Registration Direct Link: https://meetings.vtools.ieee.org/m/36447

Banquet Venue



2435 South 47th Street Phoenix, Arizona 85034 (480) 894-1600

West of Hohokam (143) Freeway and North of University Drive



IEEE Phoenix Section Information

Please Support the IEEE Phoenix Section by Joining as Volunteer in Section Committees, Society Chapters, Affinity Groups, and Student Branches

IEEE Phoenix Section Executive Meeting on First Tuesday of the Month at Hilton Phoenix Airport IEEE Phoenix Section Executive Committee Meeting is Open to Section Members Visit the Section website at sites.ieee.org/phoenix/ for additional information

2015 Phoenix Tech-Security Conference

Place: Phoenix Marriott Mesa

200 North Centennial Way Mesa, Arizona 85201

<u>Date</u>: Thursday, November 19th, 2015

8:15am-5:00pm

Click on the following link to register for your free VIP pass: http://phoenixtechsecurity2015.eventbrite.com/?aff=np

- VIP passes include Breakfast, Lunch, Conference materials and Entrance into conference sessions and exhibit areas.
- This conference qualifies for CPE credits and Certificates of Attendance.
- Gift Cards, iPads, Kindles and many other door prizes and give aways.
- Featuring (11) IT Security speakers and over 30 exhibits!!

For full conference agenda click on:

http://dataconnectors.com/upcoming-events-and-agendas/15-phoenix-tech-security-conference-2015 or call Stephanie Lange at 636-778-9495 for more information.

slange@DataConnectors.com

To join our mailing list, click on:

http://dataconnectors.com/mailing-list-signup



Where Students and Young Professionals Come to Connect and be Inspired

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The IEEE Region 6 Rising Stars Conference is designed to Inform, Excite, Enthuse, and Enlighten the top engineering students and young professionals of IEEE. The program includes interactive events, introductions to new technical innovations, networking opportunities, and professional development.

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 IEEE MEMBER I \$349
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JANUARY 2 – 4, 2016 EXCALIBUR HOTEL

LAS VEGAS, NV

HELD IN CONJUCTION WITH THE

STORAGE VISIONS CONFERENCE

CONSUMER ELECTRONICS SHOW (CES)

SPEAKERS

- ★ Jamie Garcia, IBM
- ★ Karen Panetta, Dean of Tufts University
- ★ Kate Jenkins, Ejenta, Inc.
- * Monica Giffin, Raytheon
- * Tiffany Finley, Southwest Research Institute
- ★ Joey Yang, Google
- * Patrick Griffins, Dolby
- * whurley (William Hurley), Happy Dollar
- ★ Michelle Yung, Orbital ATK
- Karen Bartleson, Synopsys

TOPICS:

SPACE TECHNOLOGY
NINJA POLYMERS
INTERNET OF THINGS
WEARABLE DEVICES
ENTERTAINMENT TECHNOLOGY
POWER SYSTEMS AND STORAGE
CLOUD COMPUTING
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IEEE Components, Packaging and Manufacturing Technology Society Phoenix Chapter

2015 Executive Committee for CPMT Chapter for IEEE-Phoenix Section

Position	Name	Phone	Email Contact
		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. Rao Bonda	(480) 786-7749	r.bonda@ieee.org
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			
Tutorial Chair	Dr. Shawn Shi	480-929-5614	Songhua.Shi.2011@ieee.org
Asst. Tutorial Chair			
Workshop Chair &	Dr. Vasudeva P. Atluri	(480) 227-8411	vpatluri@ieee.org
Publicity			
Website Co-Chair	Bharat Penmecha	(480) 552 2511	bharat.penmecha@ieee.org
Website Co-Chair	Huiyang Fei		Huiyang.H.Fei@ieee.org

Tentative Schedule for Monthly Seminars

Date	Topic	Speaker
Feb. 18, 2015	Packaging & Failure Analysis Challenges in Advance 3D	Dr. Deepak Goyal
	packages	
Mar. 18, 2015	High Spatial Resolution Strain Mapping in TEM using	Dr. Amith Darbal
	Precession Electron Diffraction	
April 22, 2015	Seminar Cancelled	
May	No Seminar due to IMS-2015 in Phoenix	
June 17, 2015	Materials Characterization: A Model for Open Access	Leroy Eyring Center, ASU
July 22, 2015	In Preparation for Retirement: Plan Early and Plan	Gregory Wojak
	Often!	
August	No seminar for August	
September 23,	HDI Routing & Construction Design Strategies	Terry Regan,
2015	From 1.27 mm to 0.4 mm	TTM Technologies
October 21st,	Details to be Announced Later	Dr. Hans Stork, CTO
2015		ON Semiconductor
November 18,	Film Assisted Molding	John Crane,
2015		Boschman Technologies
December 9 th ,	Details to be Announced Later	Dr. Christopher Bower,
2015		CTO, X-Celeprint Ltd.
January 20 th ,	Understanding and Managing the Key Cost drivers in	Marc Licciardi, Founder
2015	PCB design to optimize performance and Cost	DFX Engineering
February 27 th ,	Details to be Announced Later	Dr. Bill Bottoms
2016		



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IEEE Components, Packaging and Manufacturing Technology Society Phoenix Chapter

Wednesday, October 21st, 2015 at 5:30 PM
Power and Sensor Devices Driving
Automotive Semiconductor Applications

Johannes M.C. (Hans) Stork
Senior VP and Chief Technology Officer
On Semiconductor
Phoenix, AZ 85008 USA
hans.stork@onsemi.com

ABSTRACT

Cars are increasingly driven by electronics to reduce human error, improve traffic flow and to meet environmental regulations. The semiconductor components that enable this functionality range from medium voltage discretes to replace relays to integrated, high-voltage motor drivers with reprogrammability at high temperature. In this talk we will review the technology trends underlying the improvements in power discretes, such as IGBTs and GaN HEMT devices, the scaling trends and integration needs of high-voltage BCD CMOS flows, as well as the adjacent assembly challenges of power devices and power integrated modules.

BIOGRAPHY



Dr. Stork is Senior Vice President and Chief Technology Officer at ON Semiconductor. He oversees the development of wafer process technologies, modeling and design kits, IP libraries, as well as packaging technologies and assembly support.

Prior to joining ON Semiconductor, Dr. Stork was Group Vice President and Chief Technology Officer of the Silicon Systems Group at Applied Materials. From 2001 to 2007 he was Senior Vice President and the Chief Technology Officer of Texas Instruments. Before that, Dr. Stork held various R&D and management positions at Hewlett Packard Laboratories and at IBM's T.J. Watson Research Center.

Dr. Stork serves on the supervisory board of ASML, is a member of the Scientific Advisory board at IMEC, and has previously served on the boards of Sematech and the SRC, and is a longstanding member of the SIA Technology Strategy Committee.

He has authored over 100 cited papers and holds eleven US patents. He was elected IEEE Fellow in 1994, and served on several IEEE sponsored conference program committees. He currently chairs the IEEE A. Grove Technical Field Award committee and is vice-chair of the Technical Field Awards council. Dr. Stork received the Ingenieur degree in electrical engineering from Delft University of Technology, Delft, The Netherlands, and holds a PhD in EE from Stanford University.

Date: Wednesday, October 21st, 2015

Location: Group Conference Room, Freescale Semiconductor, Inc., Discovery Business Center, 2100 E. Elliot Rd. Tempe,

AZ. Enter the facility through the Main (South) Lobby in building 94 and sign in with Security (<u>Photo ID required</u>) **BEFORE 6:00 PM**. You will be escorted to the meeting room. The presentation promptly starts at **6:00 PM**.

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. Please arrive at the facility entrance no later than 5:45 PM.

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

Vasu Atluri (480) 227-8411 Rao Bonda (480) 786-7749 David Dougherty (480) 413-6923

Vivek Gupta (480) 734-0266 Bharat Penmecha (480) 552-2511 Mahesh Shah (480) 544-9438



SP-COM Phoenix Chapter

Please join our Google Group!

Please join our increasingly popular Google group to get the most up-to-date information about the society's activities. We have now over 50 members who are availing of this facility. Email traffic is thin, and used only to send meeting notices. No spam!

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

In addition, we continue to post meeting notices on IEEE vtools at (https://meetings.vtools.ieee.org/main)



Phoenix Chapter of the IEEE Computer Society October, 2015

News

The chapter meeting dates and venues for the remainder of 2015 are listed below:

Ι

October 7th ITT Technical Institute, Tempe campus

Speaker: Schuyler St. Ledger, presentation "Sniffing the Air – Software Defined

Radio"

December 2nd ITT Technical Institute, Phoenix campus

Speaker: Mark Goldstein, presentation "The Internet of Things"

Meetings are held from 6:00 pm to 9:00 pm on the first Wednesday of the even numbered months.

The October meeting will feature Schuyler St. Ledger, a young man who has been present at several Computer Society meetings. Still in high school, he is well known in the maker universe, particularly in the area of 3D printing. He will be speaking on his adventures with software defined radio.

Sniffing the Air

Our world is filled with radio waves. They span the RF spectrum and come from sources as diverse as a garage door opener, microwave oven, wireless access point, mobile phone, and over-the-air radio and television signals. I'll share a few methods that allow you to look at and analyze these RF signals using some simple hardware tools such Software Defined Radio or SDR (prices range from \$20 to \$400+) and software tools (mostly free.) We'll also explore a pink toy called IM-ME and show how it can be hacked to be a spectrum analyzer and cheap low power receive/transmit unit. Live demos will (hopefully) occur and questions/comments/arguments are encouraged.

Schuyler St. Leger

Schuyler St. Leger (a.k.a. DocProfSky) is a perpetually inquisitive teengineer who enjoys technology. His interests include electronics (think Arduino), software programming (think Python), robotics (think FIRST Robotics), 3D printing (think MakerBot), and wireless explorations (think BladeRF.) He's a regular speaker at Desert Code Camp and has spoken on the Ignite Phoenix stage, at Autodesk University, and at Charles Schwab's MPACT conference. Schuyler lives in Phoenix, Arizona and is currently in high school at Brightmont Academy. His motto is "Don't be afraid to break something!"

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:

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



INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

WAVES AND DEVICES

PHOENIX CHAPTER

http://ewh.ieee.org/r6/phoenix/wad/ 2015 Event Calendar



Chapter Chair: Steve Rockwell <u>steve.rockwell@ieee.org</u>

Chapter Vice-Chair: Trevor Thornton <u>t.thornton@asu.edu</u>

Date	<u>Venue</u>	Topic / Title	<u>Speaker</u>	Affiliation	<u>IEEE</u> Society
25-Feb	ASU	Thermal Challenges in Mobile Devices and Potential Solutions	Mulugeta Berhe	Henkel	Electron Devices
26-Feb	ASU	Impact of Be-doping on the material properties of InAs/InAsSb type-II superlattices for infrared detection	Elizabeth Steeenberger	Wright- Patterson Air Force Base	Photonics
27-Mar	ASU	Advanced Antenna Systems for Satellite Communication Payloads	Sudhakar Rao	Northrop Grumman	Antennas
20-Apr	ASU	Surface Acoustic Wave Devices - Challenges for Technology Development in Modern Communication Systems	Richard Gruenwald	Vectron	Ultrasonics
22-May	ASU	Microwave and Millimeter Wave Power Amplifiers: Technology, Applications, Benchmarks, and Future Trends	Jim Komiak	BAE	Microwaves
22-May	ASU	Overview of Different Numerical Solvers for Electromagnetic Applications	Felipe Cátedra	Univ. of Alcalá, Madrid,Spain	Antennas
Aug					
23-Sept	ASU	Modern Methods for Microwave Filter Synthesis	Richard Cameron	MTT Dist. Lecturer	Microwaves
Oct					
Nov					

For more information, contact:

Steve Rockwell (WAD Chapter Chair) (480) 241-9891 Curtis Scott (WAD Chapter Publicity) (623) 703-9177 steve.rockwell@ieee.org curtiscott@gmail.com



IEEE Phoenix Section Life Member Affinity Group

Technical & Administrative Meeting October 20, 2015

Program Presentation: What an Engineer Should Know about Patents

This meeting's topic addresses a lesser known subject to many engineers, namely patents. For background, a brief overview of patents is discussed then the talk shifts to the basics such as what is included in a patent, the prosecution process and some of the limitations of patents. Further, the topic includes a discussion on the importance of patent claims and a conversation of why the inventor should understand the claims of their invention. Further yet, the discussion includes the process of determining who should be included as the inventors in a patent. Finally, there is a discussion and brief overview of the American Inventors Act of 2011.

The Presenter: Gary Malhoit

Gary is a Senior Engineer in the Power Quality Group of SRP. Prior to coming to SRP, Gary's career included working in various engineering positions at NCR, Bechtel and Motorola. While at Motorola nearly 20 years, he wrote numerous technical articles for Motorola's Silver Quill program and was on the original working group of SEMI F47 for voltage sag immunity. Gary is currently a member of the IEEE 1668 working group for testing electrical equipment. Gary has a BS in electrical engineering from of the University of Tennessee and an MBA from the University of Memphis. He is a registered electrical engineer in Arizona and licensed to practice patent cases before the United States Patent and Trademark Office.

NOTE MEETING STARTS AT 11 AM

Meeting Agenda:

11AM: Attendee introductions
11:15 AM: Program Presentation
Officer's report.
Agenda to be determined

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. The meeting will be in Centennial Conference Center (CCC) is on the west side of the parking lot. It's the stand

alone house up the walk way. There will be signs.

When: Tuesday, October 20, 2015 - 11:00am - 1:00pm, Registration fee is \$15. This fee will include lunch provided by the PERA Club.

Lunch: Chicken Pesto with Spiral Pasta, Ratatouille as the side dish, a Fresh Fruit salad, and a cherry bar for desert. Ice Tea and Lemonade will be the drink selections.

RSVP: Please advise Ronald Sprague <u>r.sprague@ieee.org</u> if you plan to attend so accounting for lunch is possible.

Technical Presentations: The Program Chairs are seeking suggestion from members for future presentations. Any ideas of interest to LM are open for consideration. Please contact Ronald Sprague or Barry Perlman Program Chairs at r.sprague@ieee.org and/or barry.perlman@gmail.com.

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 the 3rd Tuesday of 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 the meetings.

- Tuesday October 20, 2015
- Tuesday December 15, 2015

Officers:

Chair	Leslie Daviet II	lesdavietii@cs.com
Vice Chair	Jim Tang	JFTANG@cox.net
Secretary	Tom Lundquist	tom.lundquist@ieee.org
Treasurer	Leslie Daviet II	lesdavietii@cs.com
Membership	Rao Thallam	Rao.Thallam@gmail.com
Program	Ron Spraque	r.sprague@ieee.org
	Barry Perlman	barry.perlman@gmail.com
Volunteer	Gary Frere	gary.frere@gmail.com
Past Chair	Barry Cummings	abarrycummings@gmail.com



IEEE Young Professionals Phoenix Section Executive Board 2015

Chair: Jennifer Taggart (<u>jennifer.taggart@asu.edu</u>)
Vice Chair: Nick Spirakus (<u>nmspirak@asu.edu</u>)
Secretary/Webmaster: Harshad Surdi (hsurdi@asu.edu)

Treasurer: George Chen (gchen32@asu.edu)

Past Chair: Shafiul "Jacky" Islam (shafiul.islam.us@ieee.org)
Member: Joseph Caglio (joseph.m.caglio@intel.com)

March 17, 2015 Networking Mixer with IEEE/IEEE-HKN ASU and IEEE Phoenix Young Professionals

It was a brilliant Arizona spring evening when ASU HKN IEEE members gathered with industry members to discuss navigating through senior year and finding a place they could call home for 40+ hours a week. Young Professionals from Intel, ON Semiconductor, Texas Instruments, and General Dynamics gathered at Buffalo Wild Wings on March 17, 2015 to share their experiences with graduating and finding a job with Arizona State University students.

George Chen and Nick Spirakus from IEEE Phoenix YP board helped organize and coordinate the event.



April 18, IEEE R6 Southwest Area Meeting at in San Diego

Shafiul "Jacky" Islam, as IEEE R6 SWA Awards Chair, served as one of the judges for Student Poster Contest and announced the top three winners. Jacky also made announcement about the special session for Young Professionals at IMS.

May 17-22, 2015 International Microwave Symposium at Phoenix Convention Center

The IEEE MTT International Microwave Symposium (IMS) is the premier annual international meeting for technologists involved in all aspects of microwave theory and practice. It consists of a full week of events,

including technical paper presentations, workshops, and tutorials, as well as a full set of social events. The symposium also hosts a large commercial exhibition featuring over 550 companies. (http://www.ims2015.org/)

Special Session: The IEEE MTT-S Young professionals presents a special session on Tuesday titled "Young Professional Discussion Forum: Awaken the Entrepreneurial Genius in You!". It features dynamic entrepreneurial speakers and panelists discussing various aspects of entrepreneurship. (http://www.ims2015.org/about-microwave-week/young-professionals/young-professional-session.)

Complementary Reception: The IEEE MTT-S Young Professionals invite all young professionals, student members and guests to a complimentary reception at Lucky Strike following the session on Tuesday, May 19, 2015

Shafiul "Jacky" Islam and Jennifer Taggart from IEEE Phoenix YP board will be there as IEEE Global Young Professionals Representative.



WIEEE 2014 IEEE Phoenix Section News

IEEE Phoenix Section Awards For The Year 2015

The IEEE Phoenix Section recognizes the contributions of members, non-members, society chapters, affinity groups, student branches, corporations, and educational institutions at the annual banquet. The next banquet is scheduled for Saturday, February 13th, 2016 at Hilton Phoenix Airport located at 2435 South 47th Street, Phoenix, AZ – 85034 from 5:30 PM to 9:30 PM (Tel: 480-894-1600).

The Section is pleased to issue a call for nominations for this year's Section awards. The scope and purpose of the Section Awards Program is to plan, promote and implement IEEE award programs that recognize outstanding performance in furthering the objectives and professional aims of the IEEE Phoenix Section, the IEEE, and the IEEE-USA, and to stimulate others to pursue such achievements of excellence.

The Phoenix Section has established the following general award categories:

- Member
- Society Chapter/Affinity Group
- Non-member
- Corporate
- Educational
- Section Chair

The Awards Guide lists the awards along with the selection criteria that will be implemented for selecting the award recipient. The Awards Guide can be accessed at http://sites.ieee.org/phoenix.

Please read through the Awards Guide to help you in selecting the award category for nomination.

All sections of the form should be completely filled electronically. Submission of additional documents such as resume in support of the nomination is highly encouraged.

Key dates:

Submission deadline: Sunday, January 3rd, 2016

Awardees and nominators will be informed on: Sunday, January 10th, 2016

Only nomination forms submitted by the deadline will be reviewed by the awards committee consisting of the following IEEE Phoenix Section Officers:

- Awards Committee Chair: Dr. Vasudeva P. Atluri
- Awards Committee Co-Chair: Dr. Charles E. Weitzel
- Past Chair: Ms. Barbara McMinn
- Chair: Mr. Bruce J. Ladewig
- Vice Chair: Mr. Surinder K. Tuli
- Secretary: Mr. Vivek Gupta
- Treasurer: Dr. Mahesh K. Shah
- Student Activities Coordinator: Dr. Diane S. Smith

If you have any additional questions, please contact Dr. Vasudeva P. Atluri, Section Awards Committee Chair, at (480) 227-8411 or by email at vpatluri@ieee.org, and Mr. Bruce J. Ladewig, Section Chair, at (480) 620-9291 or by email at bruceladewig@ieee.org.

IEEE Phoenix Section Student Scholarships For The Year 2015

The IEEE Phoenix Section awards Student Scholarships to full-time graduate and undergraduate students who are IEEE student members. The applying student must attend a university in the Phoenix Section during 2015. The universities include Arizona State University, Arizona State University Polytechnic, DeVry University, Embry-Riddle Aeronautical University, and Northern Arizona University.

The student should submit a completely filled application along with financial aid statement; a one-page personal statement of achievements, interests, and goals; official transcripts of all college work; and recommendation letters. The scholarships are awarded based on academic achievement, financial need, and service to the IEEE.

The IEEE Phoenix Section will present the following Student Scholarship awards at the annual banquet scheduled for Saturday, February 13th, 2016 at Hilton Phoenix Airport located at 2435 South 47th Street, Phoenix, AZ – 85034 from 5:30 PM to 9:30 PM (Tel: 480-894-1600):

"Atluri Award" sponsored by Dr. Vasudeva Prasad Atluri and Dr. Satyavathi Atluri. Total of two award recipients are presented with a plaque and a check for \$1000.00 each. Only graduate students are eligible for these awards.

"Al Gross Award" sponsored by IEEE Components, Packaging, and Manufacturing Technology (CPMT) Society Phoenix Chapter. The award recipient is presented with a plaque and a check for \$1000.00. Graduate and undergraduate students are eligible for this award.

"Irv Kaufman Award" sponsored by IEEE Waves and Devices Phoenix Chapter. The award recipient is presented with a plaque and a check for \$1000.00. Graduate and undergraduate students are eligible for this award.

"Dieter Schroder Award" sponsored by IEEE Phoenix Section. The award recipient is presented with a plaque and a check for \$1000.00. Graduate and undergraduate students are eligible for this award.

The checks for these four awards are given out from the IEEE Phoenix Section Student Scholarship Endowment administered by the IEEE Foundation. To learn more about IEEE Foundation, access http://www.ieeefoundation.org/.

Only applications received by the deadline, Friday, January 1st, 2016, will be reviewed by the awards committee consisting of the following IEEE Phoenix Section Officers:

Awards Committee Chair: Dr. Vasudeva P. Atluri Awards Committee Co-Chair: Dr. Charles E. Weitzel

Past Chair: Ms. Barbara McMinn Chair: Mr. Bruce J. Ladewig Vice Chair: Mr. Surinder K. Tuli Secretary: Mr. Vivek Gupta Treasurer: Dr. Mahesh K. Shah

Students Activities Coordinator: Dr. S. Diane Smith

Student scholarship winners, upon receiving notification from IEEE Phoenix Section Awards Committee, should send by email completely filled either Form W-9 for US Citizen or Form W-8 for Non-US Resident to Mr. Michael Deering, Director of Development, IEEE Foundation, at m.deering@ieee.org with a copy to Dr. Vasudeva P. Atluri, Section Awards Committee Chair, at vpatluri@ieee.org, by Friday, January 15th, 2016.

Key dates:

Application submission deadline: Friday, January 1st, 2016

Scholarship recipients will be informed on: Monday, January 11th, 2016

Submit W-8 and W-9 Forms by: Friday, January 15th, 2016

If you have any additional questions, please contact Dr. S. Diane Smith, Section Student Activities Coordinator, at (602) 749-4601 or by email at sdianesmith@computer.org, and Dr. Vasudeva P. Atluri, Section Awards Committee Chair, at (480) 227-8411 or by email at vpatluri@ieee.org.

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.

2015 Executive Committee

Chair: Bruce Ladewig
Vice Chair: Surinder Tuli
Secretary: Vivek Gupta
Treasurer: Mahesh Shah
Past Chair: Barbara McMinn

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/

IEEE-Phoenix Section Annual Banquet 2015 Photos are posted at:

http://sites.ieee.org/phoenix/2015/06/01/pictures-from-the-2015-annual-banquet-2/

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 www.ieee.org for eligibility.

Eligible candidates are requested to send in their resumes to Dr. Vasudeva P. Atluri, Membership Development Coordinator, at vpatluri@ieee.org and Dr. Charles E. Weitzel, Section Chair, at c.weitzel@ieee.org 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 button on the <u>IEEE Phoenix Section home page</u>

IEEE Phoenix Section Ventures into Social Media

You can access the web page three ways:

Use the URL: https://www.facebook.com/lEEEPhoenixSection

Click on the Facebook logo 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 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 <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

Member Discounts

Plan for the Future and Live for Today

Daydreaming about goals can be exciting. It can also be daunting when we aren't sure how to achieve them. This is where financial wellness comes in. Most financial worries come from lack of planning, not lack of money.

That is why we are pleased to announce that you now have access to *my*Financial Wellness for IEEE Members, a new program available in the U.S.

Whether you are well along your financial plan or had some bumps along the way,



you still can benefit from financial planning. At *my*Financial Wellness for IEEE members, you can benefit from no-cost educational resources, financial tools, and credentialed financial advisors to help you get your financial plans in shape.

To learn more about *my*Financial Wellness, and how it can help you, register today for an upcoming webinar:

- Inside *my*Financial Wellness 30 July 2015 at 3:00 P.M. EST
- WealthView: Your Personal Financial Web site
 26 August 2015 at 3:00 P.M. EST

Visit IEEEFinancialWellness.com to learn more.

Save on Shipping

Did you know that IEEE members who used their IEEE UPS discounts saved an average of US\$94.18 in Q1 2015? Don't have your own discount UPS account? Solve that problem and register now. Discounts apply to new or existing UPS customers.

- Members in the US, enroll now atsavewithups.com/ieee
- Members in Canada, sign up today atmembersbenefitprogram.com/ieee



Car Rental Discount

Before hitting the road on your summer vacation, find out how you could save on car rental from Alamo Rent A Car® and National Car Rental®. Through this program, IEEE members can save up to 20% and enjoy additional offers.*



Visit Alamo Rent A Car or National Car Rental to book a car now.

* Terms and conditions apply. Where available.

Refer a Colleague, Get Great Merchandise!

In conjunction with IEEE-USA, IEEE is excited to continue this special offer for US members. Refer a colleague to IEEE. If they join before the end of the membership year, they'll get a

50% discount off their first year membership, and you'll get a gift. IEEE-USA gift items you can choose from include:

Cooler backpack Computer backpack

Portable solar battery charger Tablet case

Portable speaker Parker pen and mechanical pencil set
Parker ballpoint pen Travel coffee mug and tumbler set

Golf balls Baseball hat Golf umbrella Travel umbrella

Members remain eligible to receive incentives through the existing IEEE Member-Get-a-Member (MGM) program. How it works:

- Refer your colleague via the online form.
- Your referral will receive an e-mail inviting them to join at a 50% discount off firstyear membership dues, and will receive benefits through 31 December.
- Your referral will provide your IEEE member number when he or she joins.
- Within 1-2 weeks after your referral joins, you will receive an e-mail confirming your recruiting success, including a link which allows you to select your IEEE-USA merchandise item.
- You will receive a separate e-mail for each new member you recruit.

Please help spread the word and share your IEEE experience - no one knows how beneficial IEEE Membership is to technical and career development better than you, the member. Refer your friends and colleagues today!

Free IEEE-USA eBook Offered as Special Benefit to IEEE Members

As a special benefit of IEEE membership through 15 August, IEEE-USA is offering a free eBook, *The Best of Backscatter from Today's Engineer – Volume 3*, by Donald Christiansen.

The Best of Backscatter eBooks are composed of articles that were originally published in the *IEEE-USA Today's Engineer Online*.

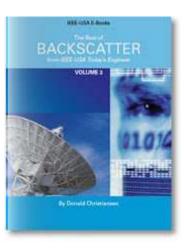
In Volume 3, Christiansen covers topics that have concerned (and sometimes perplexed) engineers for years, if not decades. Among them are how to manage careers, the future of the profession, and how the general public sees the role of engineers.

Some of the article titles included are:

Make or Buy, which discusses some of the factors an engineering team may face when deciding what

hardware and software it will recommend making or developing in-house, as opposed to outsourcing it.

Math...What Good Is It? probes the question many grade-school kids are said to be asking. Unlike students of an earlier generation, Christiansen writes, "they find math exercises boring, because they see no connection to the real world."



The Mouse that Wouldn't Quit recounts the story of *IEEE Spectrum's* Amazing MicroMouse Maze Contest. It originated in 1977, and has since given rise to an international phenomenon.

In his own "Andy Rooney"-like way, Donald Christiansen brings life to his Backscatter articles with eye-catching titles and humorous quotes. The columns are informative, and most of all, thought-provoking.



Members can download *The Best of Backscatter from Today's Engineer – Volume 3* for free through 15 August 2015. Sign in with your IEEE Account, add the book to your Cart, and enter the promo code **JULYFREE** at checkout.

In August, the IEEE-USA free eBook will be *Work-Life Balance – Book 2*, written by Peggy Hutcheson. This free eBook explores work-life balance, with regard to career stages -- young professional, mid-career and late career.

IEEE Mentoring Program

IEEE MentorCentre is the online mentoring platform for IEEE. This is a valuable resource for IEEE members seeking a professional mentoring partnership. That means all the best practices you have come to expect from an IEEE mentoring program are in place, with ample opportunity to enter a unique mentoring partnership not found anywhere else.

What you will find with IEEE MentorCentre:

- The ability to connect with mentors based on specialized areas of practice, experience, IEEE societal affiliation and more
- Opportunities to give back to the profession by registering as a mentor
- Additional fields to narrow down the preferred profile of the mentor
- Improved mentor controls allowing them to control how they are viewed in the system

Participation in the program is voluntary and open to all IEEE members above the grade of Student member.

Access IEEE MentorCentre

IEEE ResumeLab

IEEE members have a powerful tool to help gain a competitive edge in the employment process. IEEE ResumeLab is an online service thatallows IEEE members to develop a resume or curriculum vitae using specialized tools tailored for each step of



the job seeking process. This product is added to the list of offerings that assist members as they find jobs and develop their careers.

IEEE ResumeLab is designed with a series of modules that assist the member through the employment process. Key modules and features include:

- Resumes Select from a wide array of templates geared toward specific industries, sectors and work experience stages.
- **Letters** From cover letter to post-interview thank you letter, ensure optimal communication throughout the hiring process.
- **Skills Assessment** Highlight the skills you possess, your competency in those skills, and what makes your experience with these skills unique.
- Mock Interviews Prepare for the real thing by selecting an interviewer and the type of questions they'll ask. Choose to record your interview for evaluation and feedback.
- Video Resumes Record custom video messages for potential employers.
- Portfolios Upload and organize your past work to present to potential employers.
- Share Online Publish and share everything you create on a publicly viewable Web site.

Access IEEE ResumeLab

IEEE in 2030 Challenge Seeks Proposals for Innovative Projects

IEEE has launched the IEEE in 2030 Challenge with the goal of finding innovative, creative, and potentially disruptive approaches that will help engineers and technical professionals working in industry. The IEEE New Initiatives Committee will be awarding small seed grants (US\$40,000 or less) to those projects that are selected.

Applications may be submitted by one or more IEEE members or organizational units, individually or in cooperation with an IEEE staff group. The proposals will be based on their potential to lead to new IEEE products, services and communities, and have a significant impact on the overall organization.



The deadline for receiving proposals is 1 p.m.

EDT (17:00 GMT) on 24 August 2015. Notification of the proposals' acceptance or rejection will be made on 6 October (IEEE Day).

Find out more information or submit a proposal.

Get Access to the Research you Need with the IEEE Member Digital Library

As an IEEE member, you know the importance of having high quality research information at your fingertips. Access IEEE research conveniently and quickly with the IEEE Member Digital Library and get a free trial!

The IEEE Member Digital Library provides full-text access to any IEEE journal article or conference paper in the IEEE *Xplore*® digital library. There are two great options designed to meet the needs-and budget-of every IEEE member:

IEEE Member Digital Library

Designed for the power researcher who needs a more robust plan—access all the IEEE content you need to explore ideas and develop better technology with 25 article downloads every month.

IEEE Member Digital Library Basic

Created for members who want to stay up-to-date with current research—receive three new article downloads every month, plus rollover unused downloads for 12 months.

Find the research you need to stay current in technology with the IEEE Member Digital Library and **get a free trial!**



Access GoogleApps@IEEE via myIEEE

Did You Know?

IEEE members can quickly access their GoogleApps@IEEE service via myIEEE. The GoogleApps@IEEE gadget is visible to all members on the "myDesktop" page in myIEEE. Members can remove, relocate, or add the gadget back at any time. Users will experience:

- Services and account settings hot-linked to respective locations in GoogleApps (separate window)
- Single sign-on (no need to reauthenticate)

After signing in to myIEEE, select the "Customize" tab and begin personalizing your myDesktop page.