The Valley Megaphone

Newsletter of the
Institute of Electrical and Electronics Engineers, Inc.
Phoenix Section
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Executive Committee

Past Chair
Shamala Chickamenahalli, 480-554-6774
shamala@ieee.org

Chair
Rao Thallam, 602-236-5481
thallam@ieee.org

Vice Chair
Rao Bonda, 480-413-6121
r.bonda@ieee.org

Secretary
Dongming He, 480-552-0947
dongming@ieee.org

Treasurer
Keith Holbert, 480-965-8594
holbert@asu.edu

Publicity
Eric Palmer, 480-554-8710
ecpalmer@ieee.org

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

Membership
Russ Kinner

Student Activities

Conferences
Henning Braunisch, 480-552-0844
braunisch@ieee.org

Awards
Vasudeva P. Atluri, 480-554-0360
vpatluri@ieee.org

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

Please send announcements for Valley Megaphone to Eric Palmer: ecpalmer@ieee.org.

Executive Committee

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

Web Master
Chandan K. Das, 480-554-1300
cdas@ieee.org

Chapters & Branches

Communication & Signal Processing
Dr. Gang Qian

Computer Society
Cesar A. Vasquez-Carrera
cvasquezcarrera@yahoo.com

Consultants Network (PACN)
Vaughn L. Treude, 602-750-3662
vaughn@nakota-software.com

CPMT Society
Daniel D. Lu
daniel.lu@ieee.org

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

Power Engineering Society
Doug Selin, 602-371-6388
douglas.selin@aps.com

Waves & Devices Society
Chuck Weitzel, 480-413-5906
Chuck.weitzel@freescale.com

GOLD
Peter Cioe, 480-441-1702
pcioe@ieee.org

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 Eric Palmer at the above email address. Deadline for announcements and advertisements is the third Friday of the month prior to publication.
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Change of address/email? Call toll free 1-800-678-IEEE. Please allow 6-8 weeks. Section Web Page is: http://www.ieee.org/phoenix

Student Branches

ASU Main, Engineering
Chair: Monir Kahn
mmkhan@asu.edu
Advisor: Cihan Tepedelenlioglu, (480) 965-6623
Cihan@asu.edu

ASU Main, Computer Society
Chair: Prashant Shukla
shaukat@asu.edu
Advisor: Joseph Urban, 480-965-3374, joseph.urban@asu.edu

ASU Polytechnic
Chair: Hassan Qasem
hassan.qasem@asu.edu
Advisor: Dr. Raji Sundararajan, 480-727-1507 Raji@asu.edu

DeVry, Phoenix
Chair: Derrick Higga
dfahiga@gmail.com
Advisor: Dion Benes, (602) 870-9222, dion.benes@phx.devry.edu

DeVry, Computer Society
Chair: David Huerta
huertanix@computer.org
Advisors: Diane Smith
602-870-9222, dasmith@phx.devry.edu

NAU, Engineering
Gabriel Brewer
rgb7@dana.ucc.nau.edu
Advisor: Phil Mlsna, 928-523-2112
Phillip.Mlsna@nau.edu

Embry-Riddle, Prescott
Chair: Jonathan Sundman
Advisor: Chuck Cone
conec@erau.edu

IT'S MIXER TIME AGAIN!

We, the IEEE Student branch at Arizona State University welcome one and all to our bi-annual Student-Faculty-Industry Mixer for Spring 2006! The event is an informal and casual meeting of students with industry representatives and of course our faculty, completing the circle. The Mixer is on March 31st, 2006 at the Hayden Lawns, ASU Main campus between 3pm and 6pm. The success of last year's Mixer has motivated us to bring out the best in us this time. So if you're a student (looking for internships this summer!), company recruiter or faculty member, please feel free to check out our website www.ieeeasu.org or contact our Chair, Monir Khan at mmkhan@asu.edu. Hoping to see you at the Mixer!

Message from the Chair

By Rao Thallam

The annual banquet held on February 11 was by all accounts a success. A record 230 people attended and enjoyed the program. The program included a Key Note Address by Dr. Neville Woolf, Professor, Steward Observatory, University of Arizona. The banquet committee, chaired by Dr. Vasu Atluri, worked very hard and deserves our appreciation.

The goal of this section and its chapters is to offer members technical and professional meetings for professional development and networking. Beyond that, our section goals for 2006 are as follows:

- Support the chapters to offer a wide range of professional development activities, including an increased number of technical, professional and networking events.
- Arrange technical presentations at student branches and sponsor a Students Professional Activities Conference (S-PAC) with support from the region. The students-industry-faculty mixers are popular and serve the purpose of networking and exposure of the student members to industry.
- Offer mentoring and introduce IEEE to pre-college level students and teachers. We will continue to support and participate in the "Future Cities Competition" for middle school students and give the "Communications Award". See article in this issue about the 2006 event.
- Re-activate the student paper contest. See the announcement in this newsletter. Award the section's student scholarships.
- Increase awareness of IEEE benefits to employees among organizations.

Among the new section officers, Russ Kinner is the new Membership Chair, replacing Mark Garula. Mark has done outstanding job for membership development for the last three years. Russ has a lot of experience in IEEE Region 4 and the Toledo, Ohio Section, where he was Section Chair. We welcome him to the committee and value his participation. We are looking for new Student Activities Chairperson, which was previously held by Professor Keith Holbert, who became Section Treasurer. This is a very rewarding position interacting with all five student branches within the section. If you are interested, please contact me by e-mail: thallam@ieee.org or at (602) 236-5481. The following chapters have new Chairs:

Communication and Signal Processing:	Dr. Gang Qian
Computer Society:	Cesar Vasquez-Carrera
CPMT Society:	Daniel Lu
Power Engineering Society:	Douglas Selin

The IEEE Board of Directors meetings were held in Scottsdale, during the week of February 13. Both the Regional Activities Board (RAB) and the Technical Activities Board (TAB) and their committees held the meetings. Several officers from the Phoenix section attended and provided input. The meetings were informative about how the IEEE policies are made and how they impact the sections and chapters.

IEEE Power Engineering Society Technical Meeting

LOCATION: March's meeting will be at SRP's PERA Club. The following web page shows a map of how to get to SRP's PERA Club:
http://ewh.ieee.org/soc/pes/phoenix/images/PERAMAP.pdf

Registration Deadline is Monday, March 13. Please register by then so we have appropriate numbers for the catering.

Power Engineering Society March 2006 Meeting

Reservations Required: Please email Steve Clark [steveclarkpower@earthlink.net] or call Betty at 480-661-8599.

Date: March, 16, 2006

Time: Registration: 11:30am, Lunch 12:00 noon, Program 12:30pm

Place: Salt River Project, PERA Club (see map on webpage or use link above)

Cost: $8.00 (Students $4.00)

Speaker: Laurie Woodall, Chairman - Arizona Power Plant and Transmission Line Siting Committee

Topic: Transmission Line Siting in Arizona

For reservations please contact Betty at the above contact numbers before noon, Monday March 16, 2006 or submit an online reservation at

http://ewh.ieee.org/soc/pes/phoenix/lunch.htm

IMPORTANT NOTE: If you make a reservation, please make every effort to attend as the PES still has to pay for your meal if you don't show up.

You do not have to be a member of IEEE to attend the programs.

If there are any questions, feel free to call Barbara McMinn at 602-371-6383.

IEEE Phoenix Section Student Paper Contest

The IEEE Student Prize Paper Contest offers the undergraduate IEEE Student member opportunities to exercise and improve both written and verbal communication skills. Throughout an engineer's career, (s)he will be constantly called upon to communicate ideas to others. Researching, writing, and presenting a paper provides a student with invaluable early experience in expressing ideas related to engineering. Since the paper contest primary function is to improve the engineering student's communicative skills, no student should be discouraged from entering the contest due to a false requirement of technical sophistication.

This undergraduate student paper contest consists of a written paper and an oral presentation. The written paper should be in the IEEE region 6 standard, which is available at http://www.ewh.ieee.org/reg/6/sac/paper_contest.htm. Briefly, the type-written papers are 15 pages maximum, double-spaced with 12 pt font use. The written paper, as either an MS Word or an Acrobat pdf file, should be emailed to vpatluri@ieee.org by 6 p.m. on March 15, 2006 (ten days before the oral presentation).

The oral presentations are 15 mins plus a 5-minute question & answer period. The oral portion of the contest to be held the morning of Saturday, March 25 at the ASU Tempe campus in the ASU Memorial Union (MU 222, the Mohave room) starting at 8 a.m. A computer with projector will be provided for the contestants to use, since PowerPoint slides are the recommended approach. The best place to park that day should be the visitor section of Parking Structure 1 which is located near the intersection of Apache Blvd. and Normal St., and which is a short walk to the south of the Memorial Union (see http://www.asu.edu/map/).

The local cash awards for the paper contest winners are (1) First Place – $300, (2) Second Place – $200, and (3) Third Place – $100. The five judges are IEEE members from local industries.

The top entrant from each Local Student Branch (ASU Main, ASU Polytechnic, DeVry, Embry-Riddle, and NAU) is eligible to present their paper to the IEEE Region 6 Southwest Area contest to be held April 8 in Las Vegas, NV.

If you have any questions, please contact:

Dr. Keith E. Holbert
Student Activities Chair

Associate Professor
Electrical Engineering Department
Arizona State University
Voice: (480) 965-8594
Email: holbert@asu.edu

Future Cities Competition Results

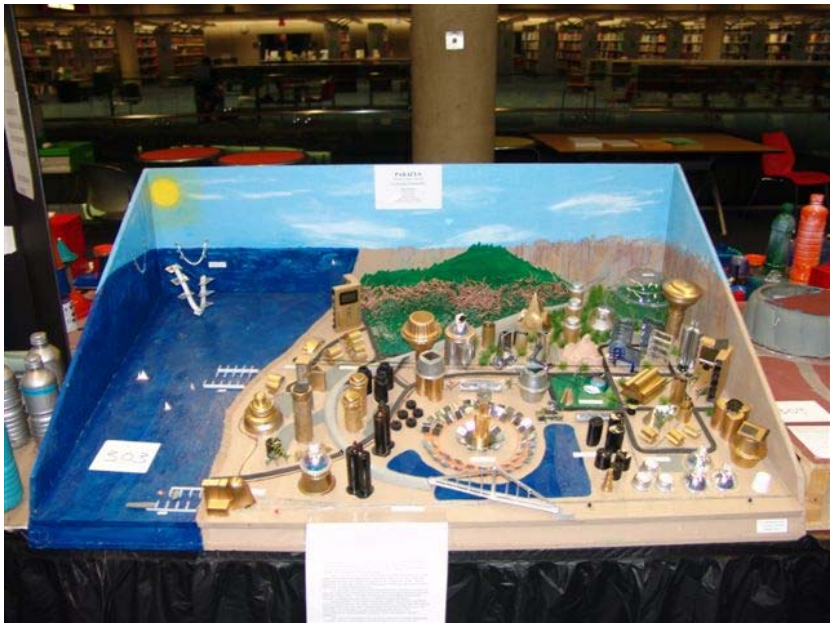
The Phoenix Section IEEE Society sponsors the Phoenix Region Nationals Engineers Week, Future Cities Competition each year. The Phoenix Section IEEE Society gives out an award for the "Best Communication System." In this year's competition, more than 80 teams of 7th and 8th grade students competed. The competition was held at the Phoenix Preparatory Academy on January 21, 2006. The IEEE Judges for this year's competition were Jim Drye, Rao Bonda, Rao Thallam, Vasu Atluri, and Shamala Chickamenahalli.

This year we chose the team from Ira Murphy Elementary School for the "Best Communication System" Award. Their city name is "Paracus." He student team members were Michael Morgan, Daisy Nunez, and Jessica Rhodes. The teacher was Marl Wingert and the engineering mentor was Paul Porell.

The team attended our IEEE Phoenix Section 2006 Annual Banquet, where they displayed their model and discussed their city's features and attributes with the Banquet attendees. Each team members were presented with individual awards at the banquet.

This year the team we choose for the IEEE award also won the overall regional competition and will be going to Washington DC.

Pictures from the event:



INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

WAVES AND DEVICES
PHOENIX CHAPTER

March 29, 2006 EDS Meeting
www.eas.asu.edu/~wadweb

Signal Integrity: A Process/Device or a Design Challenge?

Radu Secareanu

Freescale Semiconductor

Abstract

Since the invention of the semiconductor device, the imagination of scientists from a broad range of multidisciplinary fields has been the source of a continuous and fast-paced progress. Now, more than ever, developing a solution to a challenge requires multiple points of view. Now, more than ever, complex and diverse functionality is crammed on one common semiconductor substrate, while the quest for high-performance and low-cost is unprecedented. Gigahertz range RF circuits, high-accuracy A-to-D converters, high-speed digital processing units, and high-capacity memories must coexist on-chip with minimal interaction in order to preserve uncompromised functionality of the mixed-signal system.

Some of the aspects with impact on the interaction between various on-chip functional blocks comprising a mixed-signal system are being reviewed in this talk. During operation, an active semiconductor device generates noise. A device typically requires a substrate contact in its vicinity for such reasons as latch-up prevention. A substrate contact is tied to power/ground lines, which, together with the package, feature RLC parasitics. The RLC parasitics, in connection with the circuit operation, generate more noise. To overcome this positive loop for noise generation, one solution is to develop quieter devices together with materials featuring low RLC parasitics. Alternatively, develop process solutions to alleviate the noise, such as triple-wells and low-doped substrates. One step higher, the physical design in direct relationship with process options help in reducing the noise levels by employing such techniques as metal shields and substrate rings. The noise challenges however accentuate with the increase in circuit performances and technology advances. Circuit design solutions for noise reduction must be employed, methodologies for noise reduction such as the use of decoupling capacitors must be developed in order to reduce the noise gap. In this never-ending race, the imagination of scientists in multiple fields such as materials, devices, process, and design is the ultimate limit towards progress.

Biography

Dr. Radu Secareanu is with Freescale Semiconductor (formerly Motorola SPS) since 2000 as a member of the Technology R&D Organization, currently a senior member of the Microwave and Mixed-Signal Technologies Laboratory. Since 2002 he is also an adjunct professor in the EE Department at Arizona State University. Radu got his Ph.D. in 2000 from the University of Rochester, previously working for five years as a design R&D engineer. His current research interests are in signal integrity (substrate, interconnect, power-ground network) and the relationship with new technologies and mixed-signal and RF circuit design aspects, and low-voltage and low-power circuit design. He authored and co-authored over thirty referred papers, and five issued and several pending patents. He is an IEEE member, served in several conference committees at various levels, presented several conference tutorials and invited talks, served as IEEE-TVLSI Associate Editor, and is actively involved in SRC activities.

Date: March 29, 2006

Location: Arizona State University, Main Campus, Goldwater Center (GWC) Room 487
See http://www.asu.edu/map/b2.html for more details.

Time: 5:00-6:00pm Presentation, 7:00pm Pizza & soda are being provided by the WAD Phoenix Chapter

For more information, please call Chuck Weitzel (Chapter Chair) at (480) 413-5906.

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
WAVES AND DEVICES
PHOENIX CHAPTER

March 8, 2006 UFFC Meeting
www.eas.asu.edu/~wadweb

SiP/SoC Integration of RF SAW/BAW Filters

Ken-ya Hashimoto
2005-2006 IEEE UFFC Society International Distinguished Lecturer
Faculty of Engineering, Chiba University

Abstract
RF filters employing surface or bulk acoustic waves (SAW/BAW) have been mass produced and widely used in modern mobile communication equipment. Nowadays various analog functions are going to be merged into the baseband chip, and current concern is how to integrate remaining one, namely the RF front-end. This is not a simple task because major RF functional devices are based on non-Si technologies, and the RF section becomes complex rapidly for supporting multi-band and multi-mode operation.
This lecture discusses research trends of the RF SAW/BAW filters, focusing on their possible integration into RF ICs. First, modern SAW/BAW technologies are introduced, and it is shown how high performances are achievable by the use of current state-of-the-art technologies.
Secondly, current front-end modules are surveyed, and then it is discussed how they are going to be integrated with active elements.
Finally, System-in-Package (SiP) and System-on-Chip (SoC) technologies are discussed as a possible solution for the full integration of the RF front end including SAW/BAW devices into RF ICs.

Biography

Ken-ya Hashimoto was born in Fukushima, Japan, on March 2, 1956. He received his B.S. and M.S. degrees in electrical engineering in 1978 and 1980, respectively, from Chiba University, Japan, and Dr. Eng. degree from Tokyo Institute of Technology, Japan, in 1989.
In 1980, he joined Chiba University as a Research Associate, and is now Professor of the University. In 1998, he was a Visiting Professor at Helsinki University of Technology, Finland. In the winter of 1998/1999, he was a Visiting Scientist of the Laboratoire de Physique et Metrologie des Oscillateurs (LPMO), CNRS, France. In 1999 and 2001, he was a Visiting Professor at the Johannes Kepler University of Linz, Austria.

He serves as the International Distinguished Lecturer of the Institute of Electrical and Electronics Engineers, Ultrasonics, Ferroelectrics, and Frequency Control Society during July 2005 and December 2006.

His current research interests include various types of surface and bulk acoustic wave devices, acoustic wave sensors and actuators, piezoelectric thin films, and application of thin-film micro-machining technologies to the acoustic wave devices.

Date: March 8, 2006
Location: Bernoulli Conference Rm, Bldg 99, Freescale Semiconductor, 2100 E. Elliot Rd., Tempe, AZ
Drive North on Country Club off Elliot on the western edge of the Freescale site, enter back parking lot
Time: 3:30 - 4:30 pm Presentation
For more information, please call Chuck Weitzel (Chapter Chair) at (480) 413-5906.

March Meeting Announcement for the Phoenix Chapter of the IEEE EMC Society

Date: Wednesday, March 29th, 2006
Place: Garcia's Mexican Restaurant at Embassy Suites Hotel
Address: 4400 South Rural Road, Tempe, Arizona
Address: Just South of U.S. 60 on West side of Rural Rd.
Time: 5:30PM Social, 6PM Dinner (order off menu), 7PM Meeting and Presentation
Title: Numerical Field Simulation at the System Level
Speaker: Dr. Franz Schlagenhaufer of the Western Australian Telecommunications Research Institute (WATRI).

Abstract: Computer simulation is a useful tool for achieving electromagnetic compatibility on a system level. Electromagnetic fields can be analyzed near transmitters with a consideration of surrounding structures, shielding performance of enclosures with cable penetrations and openings, and coupling into and between cables, without the need to build expensive prototypes or risk costly modifications after the installation. This presentation will address the five basic steps of a typical simulation procedure:

1. Modeling: simplifying and neglecting non-essential parts of the physical model.
2. Meshing: segment sizing based on wavelength and structural discontinuities.
3. Computation: estimating calculation time and resource requirements.
4. Validation of the results: boundary conditions, power budget, field and current distributions, sensitivity for variation of input data.
5. Post-processing routines.

When it comes to field simulation for complex systems, some particularities can be noted:

- The modeling stage will, in most cases, involve significant simplifications of the physical structure, and the effect of these simplifications on the overall results must be estimated.
- The outcome from the simulations will, in most cases, not be the final result, but rather the simulation results will be the input data for the actual systems analysis.

About the speaker: Dr Franz Schlagenhaufer studied Electrical Engineering at the Technical University Munich, Germany and completed the Diploma Degree in 1988. From 1988 until 1992 he was a PhD student at the Technical University Hamburg-Harburg, and obtained the Doctorate in Engineering in 1994 with his thesis “Field Excitation of Multi-conductor Lines with Non-Linear Terminations”.

He was the manager of the EMC Laboratory at MAZ (Microelectronic Application Center) in Hamburg from 1992 until 1995 and Technical Manager of EMCSI (Electromagnetic Compatibility and Systems Integration) Pty Ltd, Melbourne, Australia, from 1996 until 1999. During this time, he was involved in EMC testing according to civilian and military standards and presented numerous workshops about EMC testing and design to industry. Since 2000, he is a Senior Research Fellow at The University of Western Australia, Perth, where his topics of interest are computer simulation of PCBs and shielding enclosures.

RESERVATIONS: Please call Daryl or Mary at Kimmel Gerke Associates in Mesa AZ at 480-755-0080. (If no answer, please leave a voice mail.) You may also register by email at dgerke@emiguru.com <mailto:dgerke@emiguru.com>. There is no charge for meetings, but you pay for your own meal and drinks. Since we order off the menu, we do not need an exact number, so if you decide at the last minute, please come anyway. You don’t need to be an IEEE or EMC Society member to attend -- all are welcome.

The world's leading professional association for the advancement of technology
www.ieee.org

www.computer.org

Computer Society Phoenix Chapter www.ieee.org/phoenix/compsociety

Upcoming Meeting

Speaker: Lonnie Dworkin

Topic: Computer Forensics

Date: Wednesday, March 1, 2006, 6:00-8:30 PM

Location: DeVry University, 2149 West Dunlap Ave, Phoenix, AZ 5021 (1 mile east of I-17 on Dunlap, SE corner of 22nd Ave and Dunlap). Networking will be in the Courtyard (6-7PM with light meal), presentation at 7PM.

Free, everyone is welcome. Please tell others about this meeting.

CompuFor

Established in 2004, CompuFor is a company based in Scottsdale, AZ that specializes in Computer Forensics and Information Security needs serving businesses in responding immediately, developing and evaluating theories of trial defense, drafting affidavits, and in the creation of pre-trial management conferences.

CompuFor works directly with local, national, and international law enforcement agencies. The company is involved in a wide variety of criminal matters and advises clients and attorneys in identity theft, Internet fraud, murder, and other type of illegal activities using the computer. CompuFor has extensive criminal defense and prosecution experience through the court system. Most of the cases are resolved without having to go to trial, saving in litigation costs to all parties involved. CompuFor makes every "bit" evident.

Lonnie Dworkin is an IEEE Computer Society member with an extensive background in IT. Company website: www.compufor.com

Next Meeting
Speaker: Dan Mazzola, Ph.D.
Topic: How To Be Employable
Company: Sun Microsystems
Date: Wednesday, April 5, 2006, 6:00-8:30 PM

For more information about either meeting, contact c.vasquez-carrera@computer.org

Science Bowl

Science Bowl is a DOE program to encourage and reward high-school students to become proficient in math and science to meet our country's needs in the decades ahead. This year we are desperately in need of volunteers to help with the competition, particularly before noon, on Saturday, March 4, at Glendale Community College. It's a lot of fun, and a lite breakfast and lunch are provided. Here are the jobs:

- Score Keeper: Adding 4 or 10 to a score to derive the next team score. No problem.

- Time Keeper: Using a big round clock or a laptop. Basically like setting an alarm clock.

- Rules Judge: For those who have helped before, since the students know the rules very well.

- Moderator: Reading the questions which involve chemical formulas and the pronouncing of scientific terms. The competition aspects are learned quickly.

We open registration (& lite breakfast) at 7AM and begin working by 7:30. The most help is needed up until lunch with eight competitions going on at the same time. Fewer occur after lunch, but it is also a chance to watch the future engineers and scientists do their best during the finals. The website is <http://www.wapa.gov/dsw/scibowl/Competition.htm>. Should you desire, training sessions are available at the WAPA facility (43rd Ave & Buckeye) prior to the event.

Please contact me at geneous@bigfoot.com, 602.243.6136 or the Coordinator, Dennis Schaefer at Dschaefe@wapa.gov, 602.605.2521. Hope you can participate. Somebody did something similar for me so many years ago and it made so much of a difference for me.

Gene Holmerud

Introduction to ECTC 2006

The premier international packaging, components, and microelectronic systems technology conference, the Electronic Components and Technology Conference (ECTC) strives to offer our attendees an outstanding array of packaging technology information. This year's conference will have 38 technical sessions, 16 professional development courses, a panel discussion, a plenary session, and a technology corner with over 70 exhibitors. The 56th ECTC will be held at Sheraton San Diego, San Diego, California, USA from May 30 -June 2, 2006.

The Technical Program contains papers covering leading edge developments and technical innovations across the packaging spectrum topics include advanced packaging, modeling & simulation, optoelectronics, interconnections, materials & processing, quality & reliability, manufacturing technology, Components & RF and packaging education. Both poster and presentation formats are used. Special papers presented at the ECTC will be awarded Motorola-IEEE CPMT Society Graduate Student Fellowship, Intel Best Student Paper award, and best and outstanding paper awards.

The Professional Development Courses offer state-of-the-art technology reviews and updates in condensed, half-day and full-day formats. Topics cover a wide range of technologies including: nanotechnology and packaging, Pb-free solders, RF/Wireless packaging, GHz IC packaging, optoelectronic components and modules, system-on-package, chip scale and wafer scale packaging, integrated passive technology, polymers for electronic packaging, and packaging failure analysis.

The panel discussion and plenary sessions both offer a format that allows for ample exchange and dialogue between the presenters and audience. The panel presentations focus on Pb-free industry update. The plenary session focuses on global manufacturing and provides the conference participants the opportunity to gain the insight and perspective of technical and business leaders.

The Technology Corner complements the technical program by providing companies the opportunity to exhibit their products and services in an environment that enables discussion and interaction with the managers and engineers attending ECTC.

This year, the ECTC will provide emphasis on two emerging areas in biomedical packaging and nano-scale technologies. Biomedical packaging is experiencing increased interest as these devices are shrinking and more point-of-care biochips are being developed with integrated capabilities. After years of laboratory research, promising implementations of nanotechnology are beginning to appear. Packaging and assembly breakthroughs are precursors to the successful use of many nanotechnologies. The 2006 ECTC Special Topics sessions will provide must-have information on challenges and advances of these two emerging technologies.

The ECTC would not be possible without the sponsorship of the IEEE Components, Packaging, Manufacturing Technology Society and the Electronic Components, Assemblies, and Materials Association (the components sector of the Electronic Industries Alliance), numerous corporate participants and sponsors, and the time and energies of the more than 170 engineers and scientists on the ECTC Executive and Program Committees.

IEEE

Bruce Angwin Memorial Scholarship

First Prize: $5,000 **Second Prize: $3,000**

FOR HIGH SCHOOL JUNIORS GRADUATING IN 2007

This Scholarship honors the memory of Bruce Angwin, one of the pioneers who established the West Coast Electronics Show and Convention (WESCON) under the auspices of the Institute of Electrical and Electronics Engineers (IEEE), Region 6.

Scholarship awards are made available in August following high school graduation, and are paid directly to the college or university of the winners' choice after verification of registration for 12 semester credits in an approved field of study.

Winners will be honored at the 2006 Region 6 Awards Banquet. Flight arrangements and accommodations for one night will be provided for each winner and one accompanying adult.

RULES & ELIGIBILITY

1. The Bruce Angwin Memorial Scholarship program is open *only* to high-school JUNIORS.

2. Scholarships are limited to students who will major in electronics engineering or an *approved* associated field, at a four-year college or university.

3. The student applicant must be graduating in 2007, from a high school in AK, AZ, CA, HI, ID, MT, NV, northern NM, OR, UT, WA or western WY.

4. The student applicant must submit a 500-600 word essay, typed and single-spaced, with the student's name at the top of the first page.

5. A high-school administrator must sign the application form, affirming the student's eligibility.

6. A current high school transcript for grades 9 through the first semester of the applicant's Junior year must be submitted *with the application*.

ESSAY GUIDELINES

Describe in your own words: the importance of, and the future of, electronics engineering or an ***approved*** associated field in the United States. Your essay should describe what this field will offer to the next generation. It should also address how you will prepare for a career in that field, how you will contribute, and how you and others will benefit.

A reproducible application form is printed on the back of this announcement.

Send completed application, essay & transcript, postmarked **NO LATER THAN** May 1, 2006, to:

Dr. Gene Stuffle, Chair
Bruce Angwin Memorial Scholarship Committee
c/o Idaho State University
College of Engineering
833 S. 8th Avenue, Campus Box 8060
Pocatello, ID 83209-8060

*Questions? Visit our website at **http://coe.isu.edu/ieee/BruceAngwin** for more details, including sample essays from past competitions and a partial list of approved associated fields.*

*If you still have questions, or need to request approval of an associated field, contact **gene.stuffle@isu.edu**.*

Bruce Angwin Memorial Scholarship

Application Form

1. Name: _____
2. Street Address: _____
3. City: _____ State: _____ Zip Code: _____
4. Home Telephone: _____
5. E-Mail Address: _____
   (REQUIRED – This will be our primary means of communication with you.)
6. High School Graduation Date: _____
   (Must be in 2007.)
7. High School Name: _____
8. HS Street Address: _____
9. HS City: _____ State: _____ Zip Code: _____
10. HS Counselor's Name: _____
11. HS Counselor's Phone: _____ Fax: _____
12. HS Counselor's E-mail: _____
    (REQUIRED – In case we can't reach you any other way.)
13. College You Plan to Attend (if known): _____
14. Major Area of Study: _____
    (See Rule #2.)
15. Applicant's Signature: _____
    (My signature verifies that the enclosed essay is my own composition.)
16. High School Administrator's Signature: _____
    (My signature verifies that the applicant is a high-school junior, expected to graduate in Spring 2007.)

INSTRUCTIONS

PLEASE read the guidelines and instructions at http://coe.isu.edu/ieee/BruceAngwin before submitting your application.

Please print neatly and fill out the Application Form completely. The student applicant must sign on line 15, and a high-school administrator must sign on line 16. Enclose the completed form, together with your essay and a copy of your high-school transcript (grade 9 through the first semester of your Junior year) in an envelope, and send it to:

Dr. Gene Stuffle, Chair
Bruce Angwin Memorial Scholarship Committee
c/o ISU College of Engineering
833 S. 8th Avenue, Campus Box 8060
Pocatello, ID 83209-8060

Applications must be postmarked no later than May 1, 2006.

Volunteer Opportunity

Sandra Everett (**severet@lib.az.us**) is the Assistant Director of the Arizona State Library for the Blind and Physically Handicapped (Braille and Talking Book Library). The Library distributes taped books and the special tape players that are provided by the Library of Congress to blind and handicapped people throughout Arizona. While the Library of Congress provides the tape players, the State Library is responsible for maintaining them. Many of the functions of the Library are carried out by volunteers, and the Library has a large cadre of volunteers. It is a very popular place among the volunteering public. For as long as anyone can remember, repair and maintenance of the tape players has been carried out by the Telephone Pioneers. This is a service organization made up of current employees and retirees of the old ATT and Baby Bells. However, with the demise of ATT and the rearrangement of the communications industry, the number of Telephone Pioneers is rapidly decreasing, and the Library needs to find a new source of skilled volunteers. Electrical engineers would seem to be the perfect fit to fill this need. I can't imagine that any self-respecting electrical engineer couldn't fix a tape recorder. Anyway, we would like to see if the Section would be willing to put an announcement in the Valley Megaphone asking for volunteers. There is an area set aside for them at the Library (located a block north of 32nd St. and Roosevelt and right next to Loop 202). The volunteers come in when they are available, repair the players, socialize with the other volunteers, have a good time doing it and provide a real service in the process. The Library has a full-time employee that does nothing but work with the volunteers, and they have a big Volunteer Appreciation event each spring.

The Library would greatly appreciate any help the Section can provide in finding good-hearted EE replacements for the lost Telephone Pioneers. This is a good opportunity, especially for our retirees, to do some good and have a good time doing it.

Paul M. Everett, Ph.D.
email: peverett@everettinfrared.com
telephone: 480-706-4753
fax: 480-706-4753