The Valley Megaphone



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

February 2006, Volume XX, Number 2

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

Mark Garula, 602-436-4031 mgarula@ieee.org

Student Activities

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

Conferences

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

Awards

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

This Issue of The Valley Megaphone Features:

Contacts:

- Executive Committee (page 1)
- Chapters and Branches (page 1)
- Student Branches (page 2)

Contents:

- Message from the 2006 Phoenix Section Chair (page 3)
- 2005 IEEE Sections Congress Report (pages 4 5)
- Science Bowl Volunteer Request (page 6)
- 2006 ECTC (pages 7 8)
- Phoenix Section 2006 Annual Banquet (pages 9 11)
- Bruce Angwin Memorial Scholarship Application (pages 12 -13)
- Library Volunteer Request (page 14)

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

Cihan Tepedelenlioglu, 480-965-6623 cihan@asu.edu

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. 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://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: Muhammad Shaukat Lodhia shaukat@asu.edu Advisor: Joseph Urban, 480-965-3374, joseph.urban@asu.edu

ASU East, Technology

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

DeVry, Phoenix

Chair: Derick 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: Tina Ponce,
tponce@phx.devry.edu, 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

Embry-Riddle Computer Society

Advisor:

Electrical Engineer

Mesa high-tech, fast growing company. Salary with opportunity for bonuses and stock options.

Work with SmartWheel and GameCycle products that incorporate technologies such as video game control, magnetic brake control, LCD, Windows and embedded user interfaces, sensors including accelerometers, strain gauges and optical encoders, and 802.11 (Wi-Fi), Multimedia Card interface, and power management.

Qualifications:

- · BSEE, new or recent graduate
- Strong ability to write Windows applications, preferably in C++ with MFC
- Strong ability to design circuit boards which integrate a microcontroller, power management, LCD, buttons, and analog sensors
- Strong ability to write software for embedded systems like the above, preferably in C

Full job description: www.3rivers.com/jobs.php

Email or fax resume to: jobs@3rivers.com -or-

Fax: 480-833-1837

Message from the 2006 Chair

By Dr. Rao Thallam



The IEEE Phoenix Section with more than 4,000 members is one of the larger sections of IEEE. To be elected as Chairman is an honor and privilege to serve. I thank all the members for giving me this opportunity to serve the Section for the year 2006. I am pleased to have the support of the experienced members in the Executive Committee: Dr. Rao Bonda as Vice Chair, Dr. Dongming He as Secretary, Prof. Keith Holbert, Treasurer.

I joined IEEE in the college and continued since then. Over the years, IEEE membership helped me to enrich my knowledge and stay active in my field.

Per IEEE records, Phoenix Section started in 1941, about 65 years ago. We are part of IEEE Region 6 which covers the 13 western states including Alaska. The Section has six active chapters, two affinity groups (GOLD and PACN), and Student Branches at ASU Main, ASU East, DeVry, NAU and Embry Riddle. A new chapter of the Education Society is approved. I urge all the section members to actively participate in the chapters, affinity groups and student branch meetings in areas of your interest. IEEE is a volunteer organization. If you have suggestions or ideas, or interested in participating in the section activities, please contact me at thallam@ieee.org, or any of the section Executive Committee members. You can find the current section officers names, phone numbers and e-mail addresses in the Section Website: www.ieee.org/phoenix.

The Phoenix Section's Annual Banquet is scheduled for February 11, 2006 at Airport Hilton. Details of the program, registration form, location and directions are in the web site and in this News Letter. The banquet program includes key note speech "Telescopes of the Future: Expanding the Frontiers of Astronomy" by Prof. Neville Woolf, Professor, Department of Astronomy, Steward Observatory, University of Arizona, Tucson. Members who made significant contributions to the profession, Senior Members, IEEE Fellows, and Companies will be recognized at the banquet. It will also be a good networking event. Please register and attend, and make the banquet a big success. I look forward to see you at the banquet.

IEEE Sections Congress 2005

IEEE is the world's leading professional association with nearly 400,000 members in over 150 countries. There are about 350 sections in ten geographic regions worldwide that serve the members. The IEEE Sections Congress held once in three years provides a forum that brings together the Institute's grassroots leadership from the sections so that they can share ideas, concerns and solutions. The Sections Congress meetings began in 1984 and this year is the 8th in series. In 2005, it was held in Tampa, Florida, from October 14 – 17, 2005. Dr. Rao Thallam, Vice-Chairman, and Dr. Rao Bonda, Secretary attended as Phoenix Section delegates.

The theme of the 2005 Congress is "Promoting a World Class Volunteer Community". The main thrust of the Congress meetings is:

- 1. Officers Training with following tracks:
 - a. Core Training
 - b. Relationship
 - c. Membership
 - d. Section Operations
- 2. Develop and vote on issues to recommend to the IEEE Board to take action for the next three years. In the final closing session, ten issues were selected by the delegates through balloting.
- 3. Networking

Copies of the CD containing the training sessions and the proceedings are available. Contact Rao Thallam, rsthalla@srpnet.com

Each IEEE Region proposed five issues prior to the Congress. These were discussed in the issues caucuses, refined and reduced to 20 issues. The delegates by electronic voting selected the final recommendations listed below.

Recommendations developed at the 2005 Sections Congress:

- 1. Increase membership value. Include as part of the basic membership free limited access to online publications, products and services <u>or</u> one free society membership with increased benefits according to membership grade, volunteer contributions, and years of membership. To be implemented by 2007 membership year.
- 2. Develop web-based interactive seminars, downloadable and on-line electronic presentations on technical subjects including an exam which, when completed will provide CEU/PDH credit for participants. Available to members at minimal cost; students, unemployed, life members, and presentations at sections and chapters at no cost. 50 CEU awardable tutorials Q32006

- 3. Provide incentives to companies encouraging employee involvement in the IEEE. Reach out to companies showing the value of IEEE membership (Provides better understanding of current trends in the industry, networking, professional development, and continuing education).
- 4. IEEE should provide to organizational units and members new tools that demonstrate the value of IEEE membership, both in terms of the advantages to employers and benefits received by members; for implementation by 4Q2006.
- 5. Update, expand, and improve the IEEE Job Site to:
 - a) Expand marketing world-wide, visible to both large and small employers
 - b) Develop materials to create more effective job searches
 - c) Provide on-line guidance/training for unemployed and underemployed members
 - d) Make it easier for employers using the Job Site
- 6. The IEEE Board of Directors shall direct the Regional Activities Board to find means to increase awareness of the value and expertise that IEEE members add to society, but particularly to their employers.
- 7. Further develop interactive training toward specific volunteer functions. There shall be quick-start, basic, and advanced training that is easily updatable. Feedback shall be collected on the training effectiveness. Entity leaders upon assumption of office will be notified via an e-mail of training availability. Pilot 4Q06, Training 4Q07.
- 8. Often, we lose the expertise of past leaders while new leaders end up reinventing the wheel. Records retention requirements are ill-defined. IEEE shall institute, mechanisms, and resources for capturing, archiving, searching, and delivering collective records, knowledge, and wisdom of past and current volunteer leaders. Guidelines and pilot 4Q06
- 9. To recruit and retain members, IEEE should **automatically** provide recognition for years of membership in the form of a progressive series of benefits; for implementation by 4Q2006
- 10. Create IEEE Digital Video Library in 2007 Provide web-based continuing education that captures presentations in conferences, societies, sections and chapters and provide virtual speakers for other sections and society meetings. Presentations would provide valuable training courses to all IEEE members.

Rao Thallam Vice Chairman, Phoenix Section

Electrical Engineer

Mesa high-tech, fast growing company. Salary with opportunity for bonuses and stock options.

Work with SmartWheel and GameCycle products that incorporate technologies such as video game control, magnetic brake control, LCD, Windows and embedded user interfaces, sensors including accelerometers, strain gauges and optical encoders, and 802.11 (Wi-Fi), Multimedia Card interface, and power management.

Qualifications:

- BSEE, new or recent graduate
- Strong ability to write Windows applications, preferably in C++ with MFC
- Strong ability to design circuit boards which integrate a microcontroller, power management, LCD, buttons, and analog sensors
- · Strong ability to write software for embedded systems like the above, preferably in C

Full job description: www.3rivers.com/jobs.php

Email or fax resume to: jobs@3rivers.com -or- Fax: 480-833-1837

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 <u>geneous@bigfoot.com</u>, 602.243.6136 or the Coordinator, Dennis Schaefer at <u>Dschaefe@wapa.gov</u>, 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 <u>Technology Corner</u> 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

IEEE ANNOUNCEMENTS

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 PHOENIX SECTION ANNUAL BANQUET

Saturday, February 11th, 2006

At





Hilton Phoenix Airport Grand Ballroom

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

Program: 6:00 PM - 7:00 PM Registration and Social Hour with Cash Bar

7:00 PM – 8:30 PM Dinner and Keynote Presentation

8:30 PM - 9:30 PM Awards Program

Keynote Speaker: Prof. Neville Woolf

Professor, Department of Astronomy, Steward Observatory

University of Arizona, Tucson, Arizona

Keynote Presentation: Telescopes of the Future: Expanding the Frontiers of Astronomy

AWARD RECOGNITION CATEGORIES

Member

Young Engineer of the Year Engineer of the Year

Advance Member Grade Fellows, Senior Members

Chapter/Society

Individuals, Teams, Organizations, Best Society Chapter

Non-IEEE Member

Contributions to the Engineering Profession

Corporate

Large Company of the Year Small Company of the Year Education

Outstanding IEEE Student Branch

Outstanding Faculty

Outstanding Pre-College Educator Phoenix Section Student Scholarships

Special Chair

Chair Special Recognition Phoenix Section 2005 Officers

Future Cities Competition

Phoenix Section Communication Award

Banquet Fees: IEEE Members and Guests \$30.00 IEEE Student Members \$20.00 IEEE Student Member Guests \$30.00 IEEE Chapter / Society Table \$240.00*

Corporate Sponsorship \$500.00**

*Table sits 8 persons

**Sponsorship includes recognition at program, table of eight for dinner, and space for display

The deadline for receiving the registration fee is Friday, February 3rd, 2006

For Making Reservations and For Further Information Please Contact Annual Sending Checks Please Contact: Banquet Organizing Committee Members:

Dr. Dongming He Dr. Vasudeva P. Atluri (480) 554-0360 Treasurer Dr. Shamala Chickamenahalli (480) 554-6774 IEEE Phoenix Section Mr. James E. Drve (480) 413-5685 437 East Tonto Place Dr. Dongming He (480) 552-0947 Chandler, AZ - 85249 Dr. Keith E. Holbert (480) 965-8594 Tel: (480) 552-0947 Dr. Rao Bonda (480) 413-6121 Fax: (480) 552-1304 Dr. Rao S. Thallam (602) 236-5481

Email: dongming.he@intel.com (preferred)

For more information visit our web page: http://www.ieee.org/phoenix



IEEE PHOENIX SECTION ANNUAL BANQUET

Saturday, February 11th, 2006







Hilton Phoenix Airport Grand Ballroom

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

Registration Form

Banquet Fees:

IEEE Members and Guests \$30.00
IEEE Student Members \$20.00
IEEE Student Member Guests \$30.00
IEEE Chapter / Society Table \$240.00*
Corporate Sponsorship \$500.00**

*Table sits 8 persons

**Sponsorship includes recognition at program, table of eight for dinner, and space for display

For additional information please access www.ieee.org/phoenix

The deadline for receiving the registration fee is Friday, February 3rd, 2006

Banquet Timings:

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

Social Hour Hors D'Oeuvres:

Tequila Jalapeno Poppers Crab Stuffed Mushrooms Teriyaki Beef Kabobs Cheese and Cracker Tray

Vegetable Tray with Ranch Dip

Cash Bar:

Sodas and Alcoholic beverages

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

Dr. Dongming He Treasurer IEEE Phoenix Section 437 East Tonto Place Chandler, AZ 85249

Tel: (480) 552-0947 Fax: (480) 552-1304

Email: dongming.he@intel.com (preferred)

Dinner Menu:

- 1) Petite Filet Mignon and Chicken Piccata Combo Dinner
- Chilean Sea Bass Dinner
- 3) Vegetable Wellington with Roasted Red Pepper Sauce

Dinner Menu also includes Field Green Salad with Ranch and Vinaigrette Dressings, Garlic Mashed Potatoes, Rolls and Butter, Fresh Vegetables, Ice Tea and Water

Dessert:

New York Cheesecake with Strawberry Sauce

Coffee, Decaffeinated Coffee and Tea are served with Dessert

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

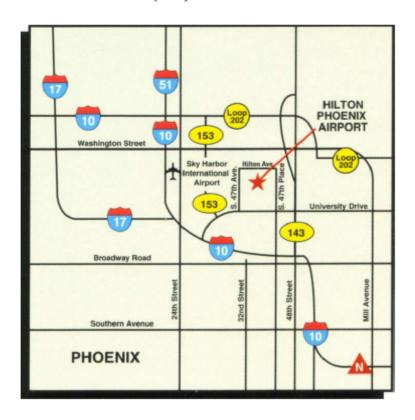
IEEE PHOENIX SECTION ANNUAL BANQUET – 2006 Registration (Please complete all sections of the form by typing or printing in bold and capital letters)				
Name:				
Guest Name:				
Address:				
Telephone Number: Email:				
IEEE Member: Yes No Student Membership #				
Dinner Choice (please select one per person)				
(1)Petite Filet Mignon and Chicken Piccata Combo Dinner (2)Chilean Sea Bass Dinner (3)Vegetable Wellington with Roasted Red Pepper Sauce				

IEEE Phoenix Section Annual Banquet 2006 Venue Directions and Map



Hilton Phoenix Airport Is Located at 2435 South 47th Street Phoenix, Arizona 85034

West of 143 Freeway and North of University Drive For Further Assistance Call (480) 894-1600





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 – 1	his will be our primary means of communication with you.)
	High School Graduation Date:		
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.)
	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

Electrical Engineer

Mesa high-tech, fast growing company. Salary with opportunity for bonuses and stock options.

Work with SmartWheel and GameCycle products that incorporate technologies such as video game control, magnetic brake control, LCD, Windows and embedded user interfaces, sensors including accelerometers, strain gauges and optical encoders, and 802.11 (Wi-Fi), Multimedia Card interface, and power management.

Qualifications:

- BSEE, new or recent graduate
- Strong ability to write Windows applications, preferably in C++ with MFC
- Strong ability to design circuit boards which integrate a microcontroller, power management, LCD, buttons, and analog sensors
- · Strong ability to write software for embedded systems like the above, preferably in C

Full job description: www.3rivers.com/jobs.php

Email or fax resume to: jobs@3rivers.com -or- Fax: 480-833-1837