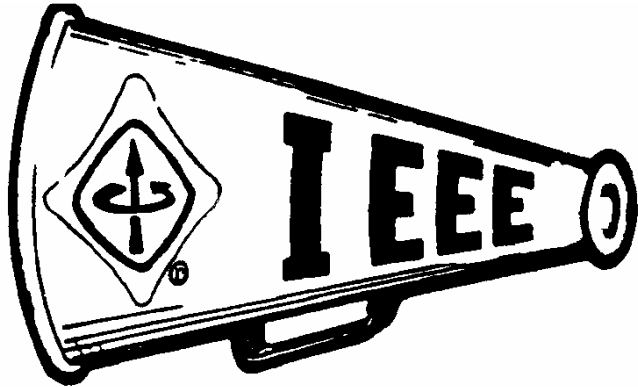


# The Valley Megaphone



Newsletter of the  
**Institute of Electrical and  
Electronics Engineers, Inc.**  
**Phoenix Section**  
March 2008, Volume XXII, Number 3

## Executive Committee

### Past Chair

Rao Bonda, 480-413-6121  
[r.bonda@ieee.org](mailto:r.bonda@ieee.org)

### Chair

Keith Holbert, 480-965-8594  
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### Vice Chair

Debendra Mallik, 480-554-5328  
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Henning Braunisch, 480-552-0844  
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### Treasurer

Jim Hudson  
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### Publicity

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[ecpalmer@ieee.org](mailto:ecpalmer@ieee.org)

### PACE

Mike Andrews, 480-991-1619  
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### Student Activities

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### Conferences

Russ Kinner, 602-997-2353  
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### Awards

Vasudeva P. Atluri, 480-554-0360  
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### Inter-Society

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### Web Master

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[mhbraunisch@ieee.org](mailto:mhbraunisch@ieee.org)

## *This Issue of The Valley Megaphone Features:*

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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](mailto:ecpalmer@ieee.org).

## Chapters

### Communication & Signal Processing

Gang Qian  
[gang.qian@asu.edu](mailto:gang.qian@asu.edu)

### Computer Society

Joy Shetler  
[jsshettler@juno.com](mailto:jsshettler@juno.com)

### Consultants Network (PACN)

Vaughn L. Treude, 602-750-3662  
[vaughn@nakota-software.com](mailto:vaughn@nakota-software.com)

### CPMT Society

Qing Zhou  
[qing.a.zhou@intel.com](mailto:qing.a.zhou@intel.com)

### Education Chapter

Martin Reisslein, 480-965-8593  
[reisslein@asu.edu](mailto:reisslein@asu.edu)

### EMBS Chapter

Ahmed Abdelkhalik  
[ahmed\\_a@acm.org](mailto:ahmed_a@acm.org)

### EMC Society

Harry Gaul, 480-441-5321  
[harry.gaul@ieee.org](mailto:harry.gaul@ieee.org)

### GOLD

Mat Mets  
[Matt.Mets@freescale.com](mailto:Matt.Mets@freescale.com)

### Power Engineering Society

Barbara McMinn  
[barbara.mcminn@aps.com](mailto:barbara.mcminn@aps.com)

### Solid State Circuits

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### Teacher-in-service

Mike Poggie  
[Mike.Poggie@ieee.org](mailto:Mike.Poggie@ieee.org)

### Waves & Devices Society

Chuck Weitzel, 480-413-5906  
[Chuck.weitzel@freescale.com](mailto:Chuck.weitzel@freescale.com)

### Life Members

Rao Thallam  
[thallam@ieee.org](mailto:thallam@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, 1/2 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>

## IEEE ANNOUNCEMENTS

<p><b>Student Branches</b></p> <p><b>ASU Main, Engineering</b> Chair: James Stape <a href="mailto:ieeasuchair@gmail.com">ieeasuchair@gmail.com</a> Advisor: Cihan Tepedelenlioglu, (480) 965-6623, <a href="mailto:Cihan@asu.edu">Cihan@asu.edu</a></p> <p><b>ASU Main, Computer Society</b> Chair: Luis Tari <a href="mailto:luis.tari@asu.edu">luis.tari@asu.edu</a> Advisor: Joseph Urban, 480-965-3374, <a href="mailto:joseph.urban@asu.edu">joseph.urban@asu.edu</a></p> <p><b>ASU Polytechnic</b> Chair: James (Bon) Brannan <a href="mailto:jbrannan@asu.edu">jbrannan@asu.edu</a> Advisor: Barbara Rempel <a href="mailto:Barbara.Rempel@asu.edu">Barbara.Rempel@asu.edu</a></p> <p><b>DeVry, Phoenix</b> Chair: Mason Surerus <a href="mailto:MSurerus@ieee.org">MSurerus@ieee.org</a></p> <p><b>DeVry, Computer Society</b></p> <p><b>NAU, Engineering</b> Chair: Kenji R. Yamamoto <a href="mailto:Kry3@nau.edu">Kry3@nau.edu</a> Advisor: Niranjana Venkatraman <a href="mailto:v.niranjana@ieee.org">v.niranjana@ieee.org</a></p> <p><b>Embry-Riddle, Prescott</b> Chair: Maria Nzmebi Ngomba <a href="mailto:ngomb7db@erau.edu">ngomb7db@erau.edu</a> Advisor: John E. Post <a href="mailto:postj@erau.edu">postj@erau.edu</a></p>	<p><b>Phoenix Section Executive Committee Meeting – First Tuesday of the month.</b></p> <p><b>Time:</b> 6:00 pm to 8:00 pm</p> <p><b>Place:</b> Phoenix Airport Hilton, 2435 South 47th Street Phoenix, AZ, 85034 Phone: 480-804-6017</p> <p><b>Directions:</b> From 143, exit University Ave, go west, turn right on 47<sup>th</sup> street.</p> <p><b>More Info:</b> Meetings held first Tuesday of month. No meetings in July and August. All interested IEEE members are welcome to attend.</p> <p><b>Contact:</b> Keith Holbert, Phoenix Section Chairman, <a href="mailto:holbert@asu.edu">holbert@asu.edu</a></p>
<p style="text-align: center;"><b>Life Members Chapter in Phoenix Section</b></p> <p>A petition to form Life Members Chapter in Phoenix section has been submitted and approved by the Section executive Committee and Region 6 Director Loretta Arellano.</p> <p>As of last month there are 435 Life Members in IEEE Phoenix Section. Life Members have long IEEE experience and can contribute significantly to the Section. Life Members Chapter like GOLD Members Chapter, and Consultants Network is an affinity group recognized and supported by the IEEE.</p> <p>If any Life Member is interested in becoming Chapter Executive Committee Chair, Vice Chair, Secretary, Treasurer or Program Committee Chair, please contact Rao Thallam: Phone (602) 236-8064, Cell: (602) 818-0549, e-mail: <a href="mailto:thallam@ieee.org">thallam@ieee.org</a></p>	
<p style="text-align: center;"><b>NSF Scholarships in Electrical &amp; Computer Engineering at Embry-Riddle Aeronautical Univ., Prescott, AZ</b></p> <p>Embry-Riddle Aeronautical University is offering individual student scholarships funded through a grant provided by the National Science Foundation of up to \$10,000 per academic year (up to four years with qualifying criteria) to academically talented and financially challenged students accepted into either the Electrical Engineering or Computer Engineering degree programs offered at the Prescott, Arizona Campus. These scholarships are provided to assist students in paying Embry-Riddle costs of attendance. Scholarship recipients also receive a minimum assurance of \$5,000 per year in other scholarships and grants funded by Embry-Riddle. These scholarship amounts are in addition to assistance for which the student qualifies from other federal and state programs. For complete information visit <a href="http://www.erau.edu/pr/news/1007nsf.html">http://www.erau.edu/pr/news/1007nsf.html</a> or contact Ed Post at <a href="mailto:john.post@erau.edu">john.post@erau.edu</a>.</p> <p>For more information visit <a href="http://www.erau.edu/pr/news/1007nsf.html">http://www.erau.edu/pr/news/1007nsf.html</a> or email <a href="mailto:john.post@erau.edu">john.post@erau.edu</a></p>	

## Student Activities Chair Needed

The IEEE Phoenix Section needs a member to fill the critical position of Student Activities Chair. This person is a voting member of the Executive Committee. The duties of the Student Activities Committee Chair include the following:

- Act as a filter regarding student requests (financial or otherwise) in order to convey historical section practice, conformance to IEEE rules, etc;
- Facilitate interaction between the student branches and student branch chapters in the Phoenix section area;
- Act as liaison between the student branches and the Phoenix section;
- Coordinate the student branch reports at the monthly Executive Committee meeting;
- Encourage student participation in regional meetings;
- Keep and update the list of student branch officers and advisors;
- Organize the Phoenix student paper contest;
- Coordinate the Scholarship Awards process; and
- Encourage nominations and assist in the selection of student related awards for the annual Phoenix section awards banquet.

There are five student branches within the Phoenix Section: (1) Arizona State University (ASU) in Tempe, (2) ASU Polytechnic, (3) DeVry University, (4) Embry-Riddle Aeronautical University in Prescott, and (5) Northern Arizona University in Flagstaff.

If you are interested in encouraging and promoting the IEEE with tomorrow's leaders---today's students, then please contact Keith Holbert, Chair, IEEE Phoenix Section, (480) 965-8594, [holbert@asu.edu](mailto:holbert@asu.edu) .

## Publicity Chair Needed

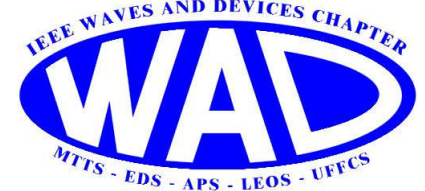
The IEEE Phoenix Section needs a member to fill the critical position of Publicity Chair. This person is a voting member of the Executive Committee. The duties of the Publicity Chair include the following:

- Publishing The Valley Megaphone, a monthly newsletter
- Relaying information on conferences, technical meetings, and other events that are of interest to all or part of the IEEE Phoenix Section members
- Working with the Web Master to provide content for the Phoenix Section Webpage

If you are interested in this position, then please contact Keith Holbert, Chair, IEEE Phoenix Section, (480) 965-8594, [holbert@asu.edu](mailto:holbert@asu.edu) .



IEEE ANNOUNCEMENTS  
INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS  
WAVES AND DEVICES  
PHOENIX CHAPTER



March 31, 2008 MTTs Meeting  
Freescale Semiconductor  
3:30-4:30 PM

## Liquid Crystal Polymer for RF and Millimeter-Wave Multi-layer Hermetic Packages and Modules

**Anh-Vu Pham**

Associate Professor, University of California at Davis

### Abstract

We present the design and development of multi-layer organic modules and packages using liquid crystal polymer (LCP). An overview and unique properties of liquid crystal polymer will be discussed. We will present the development of lamination processes that bond LCP to LCP, Si, and printed circuit board materials. These processes are used to develop wafer-scale and surface mount packages that have a fine leak rate of  $\sim 3 \times 10^{-8}$  cc-atm/s. We will present the electrical characteristics of packaged devices, embedded passive components, and communications modules. We will also demonstrate that the LCP packages can withstand 1500 hours of 85/85 and  $> 100$  temperature cycles.

### Biography



Anh-Vu Pham (SM'03) received the B.E.E. (with highest honors), M.S., and Ph.D. degrees in electrical engineering from the Georgia Institute of Technology, Atlanta, in 1995, 1997, and 1999, respectively. Anh-Vu joined the University of California at Davis in 2002 and is currently an Associate Professor. From 1999 to 2002, he held a faculty position at Clemson University. At UC Davis, Anh-Vu leads the Microwave Microsystems Lab, which has been supported by DARPA, NSF, AFRL and numerous companies for research on RF and millimeter-wave frequency organic packages and multi-chip modules, RF CMOS circuits, and

wireless sensors. Recently, his group has focused on developing organic packages and modules that can provide hermeticity and reliability as ceramic counterparts. He has published  $\sim 90$  peer-reviewed papers, several book chapters, and one book in print. Anh-Vu has served as the Chair of IEEE Microwave Theory and Techniques (MTT) Technical Coordinate Committee on Microwave and Millimeter Packaging (2003-2006), and is currently the Vice Chair of IEEE International Microwave Symposium Technical Committee on Power Amplifiers and Integrated Devices. He received the National Science Foundation CAREER Award in 2001 and the 2008 Outstanding Young Engineer Award from the IEEE Microwave Theory and Techniques Society.

In 1997, Anh-Vu co-founded RF Solutions, a fabless semiconductor company providing RFICs for WiFi applications. In April 2003, Anadigics Inc. (NasdaqNM:ANAD) acquired RF Solutions. In 2008, he has co-founded Planarmag, Inc, a company specializing in electromagnetic components for data communications applications (Ethernet, DSL, etc) and serves as the CTO.

**Date:** March 31, 2008

**Location:** Freescale Semiconductor, Large Bernoulli in Bldg 99.

**Time:** 3:30-4:30 PM *Presentation*    4:30 PM *Discussion with Pizza Served*

For more information, please call Steve Rockwell (Chapter Vice-Chair) at (480) 413-5235.

**Student Chapter at Arizona State University presents**



## **Insight Racing “Lone Wolf”: Journey in DARPA Challenge**

**Mr. Grayson Randall, IEEE Distinguished Visitor  
Insight Racing Team Leader and IBM senior software engineer**

- Discuss the development of the autonomous vehicle “Lone Wolf”
- Talk about Lone Wolf’s participation in the DARPA Urban Challenge for autonomous vehicle research

**Thursday, March 20, 2008  
12:00 – 1:30 pm BYENG 210**

***Everyone is welcome to attend!***

**FREE PIZZA & SODAS**

## Phoenix Chapter of the IEEE Computer Society

**Speaker: James Spindler**

**Date: 6:00 P.M., Wednesday, April 2, 2008**

**Location: DeVry University,**

**2149 West Dunlap Ave, Phoenix, AZ 85021 (1 mile east of I-17 on Dunlap, SE corner of 22<sup>nd</sup> 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.**

### Description

**ANSR** (Arizona Near Space Research) is a Phoenix, Arizona based non-profit 501(c)(3) organization that promotes science and education by exploring frontiers in amateur radio and high altitude balloons. These projects cover a wide range of disciplines. All the designs are released under the GNU General Public License for non-commercial usage.

The helium filled weather balloons reach a typical altitude of 90,000 to over 105,000 feet before bursting. A parachute allows the payload to fall at a controlled speed to the ground. The balloons take skyward a variety of small packages that contain a variety of electronics and experiments. The electronics include APRS (Automatic Position Reporting System), cross-band voice repeaters, and ATV (Amateur Television). APRS is a digital system that transmits position and altitude from a GPS receiver to a ground station. A cross band repeater receives voice or data signals on one frequency and simultaneously transmits the same voice or data on a different frequency. Because the balloon is at high altitude, it allows amateur radio operators to make contact over a long distance. ATV is used to relay the pictures from a small camera on the payload to a ground receiver much the same way a television station broadcasts its signal.

### About the Speaker

James Spindler is the Vice-President of Arizona Near Space Research, or "ANSR". ANSR is a non-profit organization whose goal is to promote science and engineering education thru high altitude ballooning and Amateur radio.

### For more Information

See <http://www.ansr.org> and <http://www.kd7lmo.net> for more information.

## **Risk Management Course**

IEEE now offers a [Risk Management Course for Professional Engineers](#) through IEEE Expert Now. In this course, you will learn how to apply the concept of Risk Management to your business or your organization in order to prevent your exposure to the risks of loss due to the various risk factors that are involved in any engineering disciplines: Electrical, Software, Computer, Environmental, Mechanical, Biotech, and even Packaging.

After completing the course, you will earn a risk management premium credit of 10% when you purchase your coverage through the IEEE-Sponsored [Professional Liability Insurance Plan](#). To qualify for this IEEE member-exclusive offer, the Risk Management for Professional Engineers course must have been completed within the past 15 months and you must submit the course Certificate of Achievement at the time of your application for coverage. At least one principal of the firm must submit a certificate for the firm to receive a credit. The maximum risk management credit is 10% in one policy year.

<http://www.ieee.org/web/membership/financial-advantage/fapnews/index.html>





# GENSIPS'2008



## IEEE International Workshop on Genomic Signal Processing and Statistics

Phoenix, Arizona

June 8–10, 2008

<http://gsplab.tamu.edu/gensips2008>

Recent advances in genomic studies have stimulated synergistic research in many cross-disciplinary areas. Genomic data, especially the recent large-scale microarray gene expression data, present enormous challenges for signal processing and statistics, which has led to the development of the new field of Genomic Signal Processing (GSP). This workshop is the sixth in a series of international scientific meetings devoted to the area of GSP and its applications in biology and medicine. The workshop addresses the emerging need for demonstrating to the signal processing community the potential for using signal-processing and statistical tools to uncover complex biological phenomena. The scientific program will include invited talks, tutorials, contributed papers and poster presentations. Participants will have the opportunity to be exposed to the most recent developments in the field and meet colleagues from all around the world.

### AREAS OF INTEREST

Topics of interest to the conference include, but are not limited to:

- Signal processing and statistical approaches for functional genomics problems
- Statistical inference of biological networks from experimental data
- Pattern recognition methods for functional genomics
- Control theory and systems theory techniques for systems biology
- Models for cellular metabolism and intercellular signaling
- Modeling and simulation of biological regulatory networks
- Novel architectures and implementation methods for large-scale functional genomics
- High-throughput hardware and software approaches to genome-scale network modeling
- Integration of heterogeneous data
- Microarray image and data analysis
- Signal processing methods in sequence analysis
- Computational methods for modeling and simulation of biological regulatory networks

### VENUE

GENSIPS'2008 will be held at the Embassy Suites Biltmore, in Phoenix, Arizona, which is located in the Biltmore area of Phoenix, home of fine dining, shopping, and other attractions, all within walking distance of the hotel.

## IEEE ANNOUNCEMENTS

### ORGANIZING COMMITTEE

General Chair: **Aniruddha Datta**, Texas A&M University, College Station  
Technical Program Chairs: **Paola Sebastiani**, Boston University  
**Gustavo Stolovitzky**, IBM T.J. Watson Center  
**Ciprian Doru Giurcaneanu**, Tampere University of Technology  
Tutorial Chair: **Ilya Shmulevich**, Institute of Systems Biology  
Plenary Speaker Chair: **Ioan Tabus**, Tampere University of Technology  
Special Session Chair: **Tewfik Ahmed**, University of Minnesota  
Finance Chair: **Ranadip Pal**, Texas Tech University  
Publication Chair: **Yufei Huang**, University of Texas at San Antonio  
Local Arrangement and Registration: **Jianping Hua**, Translational Genomics Research Institute  
Publicity Chairs: **Ulisses Braga-Neto**, Texas A&M University  
**Seungchan Kim**, Translational Genomics Research Institute and Arizona State University

### PROGRAM COMMITTEE

**Tatsuya Akutsu**, Kyoto University  
**Gil Alterovitz**, Massachusetts Institute of Technology  
**Junior Barrera**, University of São Paulo  
**Michael Bittner**, Translational Genomics Research Institute  
**Xiaodong Cai**, University of Miami  
**Yidong Chen**, National Cancer Institute, NCI/NIH  
**Paul Dan Cristea**, University of Bucharest, Romania  
**Nevenka Dimitrova**, Philips Research  
**Simon Godsill**, University of Cambridge, UK  
**John Goutsias**, The Johns Hopkins University  
**Arjang Hassibi**, University of Texas at Austin  
**Robert S. H. Istepanian**, Kingston University, UK  
**Ivan Ivanov**, Texas A&M University  
**Stephen Marshall**, University of Strathclyde, UK  
**Lijun Qian**, Prairie View A&M University  
**Gail Rosen**, Drexel University  
**Dan Schonfeld**, University of Chicago  
**Chao Sima**, Translational Genomics Research Institute  
**Anne Stomp**, North Carolina State University  
**Qi Tian**, University of Texas at San Antonio  
**Xiadong Wang**, Columbia University  
**Z. Jane Wang**, University of British Columbia  
**Stephen Wong**, The Methodist Hospital Research Institute  
**Rui Yamaguchi**, University of Tokyo  
**Byung-Jun Yoon**, Texas A&M University  
**Xiaobo Zhou**, Harvard Medical School

## Engineering and the Environment Conference and Exhibition

For additional information, contact Michael Andrews, [m.andrews@ieee.org](mailto:m.andrews@ieee.org), (602) 368-6013

Volunteers are needed to serve on the Organizing and Technical Committees for the first Engineering and the Environment Conference and Exhibition planned for March 2009.

The **ENGINEERING AND THE ENVIRONMENT CONFERENCE AND EXHIBITION** offers engineers and technical professionals the opportunity to:

- Share experience, concepts, innovations and technologies that address various environmental issues
- Demonstrate constructive concern from a global technical community
- Promote public awareness of engineering solutions to environmental issues
- Involve and inspire students, both university level and K-12, by including them in discussions, demonstrations and exposure to emerging technologies
- Provide a public event that will enhance the public image of the engineer and technical professional
- The event that is politically supportive/neutral and represents an untapped, unbiased knowledge base

The **ENGINEERING AND THE ENVIRONMENT CONFERENCE AND EXHIBITION** is designed to provide an opportunity for the engineering and technical community to address environmental issues of concern by the engineering community and design considerations that address sustainability. The Exhibition will provide an opportunity for organizations to spotlight emerging technologies and create innovative solutions for a number of environmental concerns.

Presentations can be a combination of technical track presentations, forums and tutorials. The **technical program** would be organized and managed similarly to other IEEE technical conferences with Track/Program Chairs, formal call for papers and refereed papers. The **forum** will be hosted by the conference with speakers invited based on a specific area of expertise or field of interest. **Tutorials** would be classroom-based presentations that provide conference attendees and the general public with implementable solutions to specific problems.

### Technical Tracks

- **Energy**
  - Energy conservation, building materials, lighting systems and controls, low voltage, starters, thin film, etc.
  - Renewable power generation, biomass, building materials, fuel cells, geothermal, hydrogen, nanomaterials and nanocells, nuclear, solar, wind, etc.
- **Green Materials**
  - Standards
  - Consumer and Industrial Electronics
  - Building and construction materials
  - Integrated elements
  - Infrastructure elements

## IEEE ANNOUNCEMENTS

- **Impact of Emerging Nations**
  - Use of natural resources
  - Design of new manufacturing and distribution facilities
  - Pollution control systems
  - Regulations and self-regulated development
- **Nanotechnology**
  - Nanotoxicology
  - Nanopollution
  - Nanosensors and control systems
- **Manufacturing**
  - Consumer electronics
  - Emerging economies
  - New manufacturing and distribution facilities, processes and systems
- **Sustainability**
  - Green engineering (process, building and infrastructure improvements)
  - Industrial Ecology (improved operating efficiency and waste reduction)
  - Ecological Engineering (systematic resource restoration)
  - Earth Systems Engineering (mitigation systems)
  - Energy systems
  - Water use, reclamation and reuse
  - Buildings
  - Transportation systems

### **Forum:**

In addition to the technical tracks identified, the conference could host a forum(s) that specifically address:

- A specific environmental issue
- National initiatives
- Funded research initiatives
- Transferable or repeatable approaches in manufacturing that positively impact the environment
- Award winning systems

## IEEE ANNOUNCEMENTS

### IEEE Mentoring Connection

IEEE is offering its members the opportunity to participate in an online program which will facilitate the matching of IEEE members for the purpose of establishing a mentoring partnership. By volunteering as a mentor, individuals use their career and life experiences to help other IEEE members in their professional development. I believe this program can be a great tool to provide our newest members of our profession guidance in their careers and provide experienced members a chance to hear first hand from the newly graduated about the latest training the next generation is receiving. This is a program for higher level members and is provided to help ease the transition out of school and into a career.

As a mentee, you lead your partnership by selecting your mentoring partner from among those who have volunteered to serve in this capacity. I ask that you review the time and effort commitment to the program to ensure a successful mentoring partnership. Participation in the program is voluntary and open to all IEEE members above the grade of Student Member.

If you are interested, please go to <http://www.ieee.org/mentoring> for information on the roles and responsibilities of each mentoring partner. I encourage you to take advantage of the IEEE network of technical professionals or offer your expertise and sign up for the online mentoring program today.

#### Who can be an IEEE Mentor?

IEEE higher-grade members (above Student Member grade) who are, but not limited to:

- Willing to give time and effort to the mentoring partnership (we suggest minimum of two hours per month)
- Able to communicate effectively with others
- Willing to share some career successes and failures
- Individuals who may be or have been executives, consultants, or in middle or upper management, or in research
- Individuals who may be or have been educators, entrepreneurs, or self-employed
- Individuals who may be or have been proven leaders offering inspiration and insight
- Individuals who may be or have been IEEE officers or volunteers
- Willing to review an orientation session to learn guidelines, tools of program and the mentee and mentor's role and responsibilities

#### Who can be an IEEE Mentee?

IEEE higher-grade members (above Student Member grade) who are, but not limited to:

- New professionals in their first or second job, or considering entering graduate programs
- Recent graduates entering the professional workforce for the first time
- Professional making a career move or career change
- Passionate for learning
- Willing to give time and effort to the mentoring partnership (we suggest minimum of two hours per month)
- Willing to identify and clarify their developmental goals
- Interested in learning from another professional "who has been there"
- Willing to participate in mentee orientation session to learn guidelines, and tools of program and their role and responsibilities as a mentee

This program deserves your consideration and doesn't require a large amount of time on your part. It can provide of great assistance to the next generation of engineers.

Russ Kinner  
Membership Chair, Phoenix Section

# RE-SEED

## Retirees Enhancing Science Education through Experiments & Demonstrations

### Overview

RE-SEED (Retirees Enhancing Science Education through Experiments and Demonstrations) is a Northeastern University program that prepares engineers, scientists, and other individuals with science backgrounds to work as volunteers, providing in-classroom support to upper elementary and middle school science teachers with teaching the physical sciences.

After completing a comprehensive free training program, participants volunteer in middle school classrooms on the average once a week for at least one year. RE-SEED began in 1991 with six volunteers. To date close to 500 RE-SEED volunteers have worked in schools in about 100 communities throughout the country offering about 500,000 hours of their time.

Nationally, 75 percent of 7th and 8th grade students are taught physical science by teachers who do not have a major or a minor in the subject (The National Science Board, Science and Engineering Indicators 2000). RE-SEED volunteers possess talent and expertise that complement those of science teachers. They bring with them a wealth of knowledge and experience that allows them to make science interesting and relevant to everyday situations.

RE-SEED volunteers work closely with the host science teachers to help them enrich and implement their school curriculum. Overall the volunteers become involved members of their schools' and even their districts' teaching team, sometimes taking part in curriculum adoption decisions.

Please contact us by email at [reseed@neu.edu](mailto:reseed@neu.edu) or phone 888-742-2424; Shelia Kirsch at [Sheila.Kirsch@asu.edu](mailto:Sheila.Kirsch@asu.edu) and / or Deirdre Weedon, [d.weedon@neu.edu](mailto:d.weedon@neu.edu). if you are interested in learning more about these training programs.