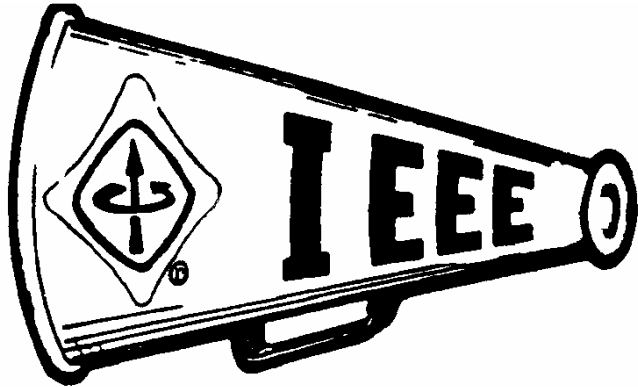


# The Valley Megaphone



Newsletter of the  
**Institute of Electrical and  
Electronics Engineers, Inc.**  
**Phoenix Section**  
August 2006, Volume XX, Number 8

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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).

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### Waves & Devices Society

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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>

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**Embry-Riddle, Prescott**

Chair:

Advisor: Chuck Cone

[conec@erau.edu](mailto:conec@erau.edu)

**Phoenix Section Executive Committee Meeting – First Tuesday of the month.**

**Time:** 6:00 pm to 8:30 pm

**Place:** Phoenix Airport Hilton, 2435 South 47th Street  
Phoenix, AZ, 85034  
Phone: 480-804-6017

**Directions:** From 143, exit University Ave, go west, turn right on 47<sup>th</sup> street.

**More Info:** Meetings held first Tuesday of month. No meetings in July and August. All interested IEEE members are welcome to attend.

**Contact:** Rao Thallam, Phoenix Section Chairman, ph: (602) 236-5481 or e-mail: [thallam@ieee.org](mailto:thallam@ieee.org)

**15th Topical Meeting on  
Electrical Performance of Electronic Packaging**

**EPEP 2006**

**October 23–25, 2006**

**Scottsdale, Arizona**

**Sponsors:**

**IEEE Components, Packaging and Manufacturing Technology Society**

**IEEE Microwave Theory and Techniques Society**

**Call for Papers**

The **general subject of the meeting** is the electrical modeling, design, analysis, and characterization of electronic interconnections and packaging structures. Authors are invited to submit papers describing new technical contributions in the areas broadly covered below:

- Current and future issues related to on-chip interconnections
- Router friendly models and modeling tools: accuracy & efficiency
- Modeling and design of high speed digital I/O circuits: signal propagation and reception
- On-chip power delivery and regulation
- Advances in modeling core switching noise, and design of novel solutions
- On-chip measurement techniques
- Package analysis, including numerical methods
- Electromagnetic analysis tools
- Advances in transmission-line techniques
- Power distribution and package resonance
- Long distance propagation in large switching complexes
- Switching noise in multi-layered systems
- Macromodeling techniques
- Signal integrity in mixed signal integrated circuits
- Electrical issues in MEMS packaging
- New and innovative interconnect packaging structures and their electrical performance
- RF/microwave packaging structures and their electrical performance
- MMIC modules and high density packaging
- Experimental characterization techniques
- EMC/EMI sources & effects
- Prediction/measurement of radiation from on-chip sources, interconnect structures and packages
- Electrical design implications for low cost, high volume packaging
- Packaging concerns for wireless communication: design and modeling
- Packaging solutions for on-chip radios: design and modeling
- Performance of packaging for automotive radar systems

**Conference Co-chairs:** Moises Cases, IBM; Paul Franzon, North Carolina State University

**Conference Web Page:** Detailed information can be found at <http://www.epep.org>

**Paper Submission:** Information for authors can be found on the conference web page. Electronic submissions of no more than four pages must be received no later than **July 10, 2006**.

**Student Paper Award:** Two awards will be presented to the best two papers submitted by students.

**Short Courses/Workshops:** On Sunday, October 22, 2006, a workshop entitled "Future Directions in Packaging" will be presented and short courses/tutorials will be offered.

**Contacts:**

Moises Cases, e-mail: [cases@us.ibm.com](mailto:cases@us.ibm.com)

Paul Franzon, e-mail: [paulf@ncsu.edu](mailto:paulf@ncsu.edu)

Kelly Sutton, e-mail: [epd@engr.arizona.edu](mailto:epd@engr.arizona.edu)

**IEEE Phoenix Area Consultants Network August Meeting:  
ASU Technopolis - Educating, Coaching and Collecting Innovators and  
Entrepreneurs**

**Date:** Thursday, August 10, 2006  
**Time:** Networking begins at 6:30 PM  
Dinner begins at 7:00 PM  
Program starts at 8:00 PM

**Place:** Denny's Restaurant  
3315 N. Scottsdale Rd. (at Osborn)  
Scottsdale, Arizona 85251

**Abstract:** This month's speaker will be Karen Katzorke, who has been with ASU Technopolis since the summer of 2004 as Program Manager, and is responsible for the planning and execution of programs and events. Karen previously worked as Program Manager of Entrepreneurial Services at the Greater Phoenix Chamber of Commerce, where she coordinated entrepreneurial programs and provided organization and promotion for the Arizona Venture Capital Conference. She is experienced with early to mid-stage life science and technology entrepreneurs, assisting companies with access to capital and other expansion and growth needs. Karen has more than 5 years of economic development experience, which includes the Greater Phoenix Chamber and the Greater Phoenix Economic Council.

For more information, contact Vaughn Treude, [vaughn@nakota-software.com](mailto:vaughn@nakota-software.com), or see the IEEE PACN website, [www.ieeepacn.com](http://www.ieeepacn.com).



**INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS  
COMPONENTS, PACKAGING AND  
MANUFACTURING TECHNOLOGY SOCIETY  
ECTC Components & RF Program Committee  
CPMT RF & Wireless Technical Committee**



**57th ECTC May 29 – June 1, 2007  
Reno, Nevada, USA**

The CPMT RF & Wireless Technical Committee and the ECTC Components & RF Program Committee encourage you to submit an abstract to ECTC 2007 in the area of passive components & networks, RF and Microwave components and modules and subsystems. ECTC is the premier Electronic Components and Packaging conference held annually and attended by about 1000 delegates with equal participation from companies and academia. As in the past, Components, RF & Microwave related papers are solicited for focus sessions during this prestigious conference.

**Passive components**

Design, Materials, Processes and manufacturing considerations for discrete passive components-resistors, capacitors, inductors and passive networks

**Integrated / Embedded Passives for digital, mixed signal, RF/Microwave applications:**

Design, technology, characterization - Embedded passives (inductors, capacitors) for RF/microwave applications & evaluation of their performance in terms of Quality Factor (Q), component value, fabrication challenges & cost

**RF and Microwave Components:**

Integrated Antennas, filters, baluns, RFID/sensors, RF MEMS, high power and high efficiency RF/microwave power amplifiers – design, technology, new high frequency characterization methodologies

**RF and Microwave Modules:**

RF/Microwave Packaging techniques & characterization

Module Integration in semiconductor, ceramic, organic or glass substrates for UWB, integrated transceivers for Zigbee, mobile digital TV ---

EMI and innovative shielding techniques for passive components and mixed signal application

**SUBMISSIONS:**

Please submit abstracts using the ECTC web site: [www.ectc.net](http://www.ectc.net) by October 15, 2006. Abstracts must comply with the guidelines outlined at the website. To have your paper considered for inclusion in the “Components & RF” focused sessions **YOU MUST SELECT**

**“Components & RF” committee as your PRIMARY subcommittee preference**

when you submit your abstract at the ECTC web site. Again, to have your paper considered for the RF & microwave components sessions, please do the following:

STEP #1: Submit abstract through the ECTC web site ([www.ectc.net](http://www.ectc.net)) and select **“Components & RF” as PRIMARY subcommittee preference**

STEP #2: Email abstract copy and author’s email & contact information to:  
Craig Gaw at [c.a.gaw@ieee.org](mailto:c.a.gaw@ieee.org) & Mahadevan Iyer at [mahadevan.iyer@ece.gatech.edu](mailto:mahadevan.iyer@ece.gatech.edu)

## PES September 2006 Luncheon Meeting

*Date:* Thursday, September 21, 2006

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

*Location:* SRP PERA Club  
1 E. Continental Dr.  
Tempe, AZ

*Speaker:* James Hsu, Senior Principal Engineer, Transmission System Planning Department,  
Salt River Project

*Topic:* Palo Verde Congestion Management

*Cost:* \$8.00 (Students \$4.00)

*Reservations:* Contact Michelle at (602) 437-0469 or submit your name through the PES website at <http://ewh.ieee.org/soc/pes/phoenix/>.  
**Reservations deadline is Noon Monday, September 18, 2006.**

*Abstract:*

A presentation of the technical analysis of utilizing the Special Protection Systems (SPS) such as (1): a direct load tripping scheme (DLT) during the two major generating units' outages to mitigate the post-transient voltage instability problem and (2): a direct generator tripping scheme (DGT) in the event of double circuits outage to maintain transient stability performance to meet the reliability criteria. Implementation of these SPS can minimize the adverse impact and prevent from further system wide spread cascading outages on the existing system and therefore will maximize system power transfer capability. Discussion of the planning studies and the associated technical advantages that can be achieved by utilizing these two types of special protection systems in the WECC major southwest network hub.

*Biography:*

Mr. Hsu graduated from the National Taipei Institute of Technology in electrical engineering in 1962. He received his MSEE degree from the State University of New York at Binghamton in 1970. During 1968 to 1978, Mr. Hsu was an employee at New York State Electric & Gas Corporation, working primarily with New York Power Pool (NYPP) and Northeast Power Coordinating Council (NPCC) system studies. He has been with Salt River Project since 1978. He is currently a senior principal engineer in the Transmission System Planning Department of Salt River Project. His primary responsibility includes developing plans for the company's major transmission projects and directing technical studies for power system planning and operations. He is a member of the IEEE Dynamic Stability Performance Subcommittee and has recently made submission to the CIGRE Task Force 38-02-25 on "Modeling of Gas Turbines and Steam Turbines in Combined-Cycle Power Plants". He has authored and coauthored several papers on power system planning and power system analysis and techniques. Mr. Hsu is a registered Professional Engineer in the State of Arizona

**49<sup>TH</sup> ANNUAL I E E E – PES GOLF OUTING**

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DATE: Saturday, SEPTEMBER 23RD, 2006  
TIME: 8:00 a.m. SHOTGUN START- Best Ball Four Man Scramble  
PLACE: ANTELOPE HILLS GOLF  
One Perkins Dr.  
Prescott, AZ 86301

FEE PER PLAYER: \$ 85.00 - includes: Green Fees  
Golf Cart  
Buffet Lunch

PRIZES: Prizes for the top three teams plus individual skills will be awarded.  
There will also be a raffle.

LUNCH: Included- will be served immediately following golf

RESERVATIONS: Call Steve or Pam by September 6<sup>th</sup> @ (480) 661-8599

CHECKS MUST BE MADE PAYABLE TO: I E E E – PES (If not checks will be returned)

PLEASE MAIL CHECKS TO: I E E E – PES  
% Clark Power Products  
10752 N. 89<sup>th</sup> Place # 104  
Scottsdale, AZ 85260

Checks must be received by SEPTEMBER 8<sup>TH</sup> (NO LATER!)





**Institute of Electrical and Electronics Engineers, Inc.**  
**Phoenix Section**  
**Components, Packaging and Manufacturing Technology Society Chapter**  
**&**  
**Waves and Devices Chapter**  
**PRESENT AN ALL-DAY WORKSHOP ON**

**Convergence in Communication and Computing**

**Date:** Friday, November 17<sup>th</sup>, 2006      **Time:** 7:00 A.M. – 5:00 P.M.  
**Location:** Arizona State University, Tempe, Arizona – ASU Memorial Union (Arizona Room)

**Abstract**

The convergence of mobility, seamless connectivity, and broadband access are the underpinning of next-generation communication systems. Several new applications such as video-conferencing and wireless multimedia are emerging to leverage this capability. Many communication platforms (3G Cellular, WiMax, WLAN, etc.) compete to provide the best solutions for consumer needs in communication, computing and entertainment products. Technology challenges - component through system level - abound for realizing such opportunities at a marketable price point. This one day workshop will bring together experts from industry, academia, government labs, and the financial community to share market visions and to discuss technology issues, options, opportunities and emerging standards. The goal is to provide a comprehensive view of the challenges facing system, device, interconnect and packaging technologies. A panel discussion on the “Future of Convergence in Communications” will bring closure to the day’s workshop. Vendors in the entire supply chain will display their products and services throughout the day.

**Topics**

- Vision – A View of the Future of Convergence
- Market – Current Status and Future Trends
- Business Model
- System and Architecture
- Communication Technology Options and Standards
- Device Technology – RF, Microwave, Analog, and Base Band / Graphic Processing
- Packaging – Mobile Products and Infrastructure
- Antenna / Propagation
- System Integration
- Panel discussion on the Future of Convergence in Communications



Chair: Vasu Atluri (480) 554-0360

Co-Chair: Chuck Weitzel (480) 413-5906

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For General Information:  
<http://www.ieee.org/phoenix>

For Workshop Registration Forms: Sergio Pacheco (480) 413-3737

For Vendor Registration Forms: Vivek Gupta (480) 554-2195