



IEEE

# The Analog

A Newsletter of the Central Texas Section of the Institute of  
Electrical and Electronics Engineers Inc.

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## IEEE CONSULTANTS' NETWORK SOCIETY MEETING Thursday, April 3, 1997

**Time:** Social & Networking: 6:00 PM  
Program: 6:30 PM  
**Place:** Red Lion Inn (Restaurant)  
Austin, TX

Speakers are frequently business administration specialists in areas of interest to small businesses and consultants. Representatives from central Texas businesses are also invited to network or participate in general discussions of their specific technical problems.

**Directions:** North of 290E on the East I-35 access road in Austin.

For more information please call:

Georgetown .... B. Thorpe (512) 863-8621  
Dallas ..... David Allen (214) 558-7270

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## CENTRAL TEXAS ELECTRONICS ASSOCIATION (CTEA) MEETING Wednesday, April 9, 1997

**Time:** Social: 6:00 PM  
Program: 7:00 PM  
**Place:** Holiday Inn NW  
Austin, TX

The Central Texas Electronics Association (CTEA) holds joint meetings of the local chapters of the International Micro-electronics and Packaging Society (IMAPS) and the Surface Mount Technology Association (SMTA) on the second Wednesday of each month (September through April).

For more information contact:

Robert Flake ..... (512) 471-1014  
robert.flake@mail.utexas.edu  
Keith Vanderlee ..... (512) 838-7297  
kvanderlee@us.ibm.com

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## IEEE POWER ENGINEERING SOCIETY MEETING Thursday, April 17, 1997

**Time:** Social: 6:30 PM  
Dinner: 7:00 PM  
Program: 8:00 PM  
**Place:** Pepper at the Falls  
Downstairs Meeting Room  
San Marcos, TX

**Speaker:** John Hoffner  
Planergy, Inc.  
**Program:** Solar Electricity (Photovoltaics)  
as a Utility Customer Service  
Option

Scheduled topics to be discussed are:

- An update on the latest solar photovoltaic technologies
- The photovoltaic industry and manufacturing
- The US and foreign market
- Green Power marketing
- Photovoltaic activities with utilities in Texas
- Photovoltaic projects in the US
- Photovoltaic business opportunities in Texas

**Biography:** John Hoffner is the Director of Advanced Technologies at Planergy, Inc. in Austin, Texas. He is heading up the renewable and advanced technology section for Planergy, a 80 year old energy services company. Before Planergy he was with the City of Austin Electric Utility for 13 years as Manager of the Alternative Energy Section. Under his direction the City was involved in almost 1 MW of photovoltaics, a 3 MW bio-power plant using landfill gas, and a 10 MW share of the Texas Wind Power Project built by the LCRA.

At Planergy, Mr. Hoffner is working with cooperative and municipal electric utilities and the State of Texas to find opportunities for using stand-alone photovoltaics as a customer service option.

Mr. Hoffner is a member of the IEEE Power Engineering Society and is Chairman of the Photovoltaic Working Group.

**Directions:** From Austin, take I-35 South to San Marcos. From San Antonio, take I-35 North to San Marcos. Take the Aquarena Springs Drive exit. Go west (young man) past the SWTSU Stadium. After crossing the San Marcos River, turn right on Session Road. Peppers at the Falls will be on the right.

**Reservations:** Call David Aldrich at 1-800-257-2883 or Doug Evans at (512) 248-3137 by noon, Wednesday, April 16.

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## ELECTRON DEVICES SOCIETY ORGANIZATIONAL MEETING AND OFFICER ELECTIONS Tuesday, April 22, 1997

**Time:** Program: 7:30 PM  
Electurus: 8:00 PM

**Place:** Meeting Room  
City of Austin Old Quarry  
Branch Library  
7051 Village Center Drive  
Austin, TX

**Program:** Organizational Meeting and  
Officer Elections

Bruce J. Williams, Chairman of the Central Texas Section, will initially review the organization of the Central Texas Section and discuss the meeting and reporting requirements for the Electron Devices Society. The various duties of the officers of the Electron Devices Society will be briefly reviewed.

Robert D. Hunter, Past Chairman of the Central Texas Section, will conduct Officer Elections for the Electron Devices Society. Nominations for the following offices will then be tendered followed by election of officers: Chairman, Vice Chairman, Secretary, and Treasurer

This meeting is open to all IEEE members. However, only currently active members of the IEEE Electron Devices Society may serve as officers. All meeting participants are encouraged to bring along specific suggestions for future programs of the Electron Devices Society.

**Directions:** From San Antonio, drive north on I-35 and take the 15th Street exit just past the State Capital. Turn left at the light and head west on 15th Street for approximately two miles to Loop 1 (Mopac). Turn right and head north on Loop 1 for approximately 5 miles and take the Far West exit. Turn left at the light and cross over Loop 1. Go two blocks and turn left at the second light onto Village Center Drive. The Old Quarry Library will be in the shopping center on your left.

**Reservations:** Please call or send email by NOON Friday, April 18:

Bruce G. Williams ..... (512) 345-5773  
b.williams@ieee.org

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**CENTRAL TEXAS SECTION**

Joint with

**COMPUTER SOCIETY**

Wednesday, April 23, 1997

**Time:** Social: 6:30 PM  
 Dinner: 7:00 PM  
 (\$15, Students \$5)  
 Program: 8:00 PM

**Place:** The Austin Club  
 110 East 9th Street  
 Austin, TX

**Speaker:** Philip Heisel  
**Topic:** JAVA, The Future of Network Computing

**Biography:** Philip Heisel is a System Engineer with Sun Microsystems. During his seven plus years with Sun, he has specialized in Software development and for the past one and half years focused on Java and Internet/intranet technology. Mr. Heisel is a founding member of Sun's Java Accs. He was a contributor to IDG's "Internet World - 60 Minute Guide to Java" and a reviewer for Prentice Hall's "Practical UNIX Programming." Currently, Mr. Heisel is the Director of San Antonio UNIX Users Group. He has a BS degree in Math/Physics from University of Pittsburgh and fifteen hours toward a MS in Computer Science from the University of Texas.

**Direction:** From I-35, take the 6th-12th Street exit, go west on 6th Street to Congress. Turn right on Congress, go three blocks and turn right on Ninth Street. The Austin Club is located about a half a block down Ninth Street (between Congress and Brazos) on the left. Parking is available in the garage to the right of the Austin Club and behind the Austin Club.

**Reservations:** Reservations are required by NOON on Monday, April 21.  
 Austin.....Kelly Butler (512) 452-2811  
 kbutler@ccai.com

SA.....M. Abdolsalami (210) 431-2047  
 m.abdolsalami@cece.org

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**EMC SOCIETY MEETING**  
 Thursday, April 24, 1997

**Time:** Social: 6:30 PM  
 Dinner: 7:00 PM  
 Program: 8:00 PM

**Place:** Molly Joe's Restaurant  
 1153 Oasis  
 New Braunfels, TX

**Speaker:** Tim D'Arcangelis  
 Kalmus Engineering

**Program:** Amplifiers for EMC Applications

Our EMC community has come a long way. We have the amplifiers and techniques to do a better job, yet we seem to fall into the same traps that plagued us in the early years. With automated control and hands off data recording, we now have the ability to make the same mistakes faster than ever. Worse, we may be losing the sense and available means to detect errors.

This presentation will include a brief review of early broadband testing and the changes made to do it better. It will be shown how amplifiers are very much a part of doing it right or doing it wrong.

- The many factors that determine the required RF power.
- Some problems with broadband amplifiers and broadband antennas.
- The omissions in the standards.
- The problems with radiated testing at 27 MHz with the suggested means.
- Class A and Class AB amplifiers: is one better than the other for EMC?
- Amplifier ability to drive high VSWR loads; is there a downside?
- Simple tests to check out an existing immunity test system.

**Biography:** Tim D'Arcangelis is Director of RF Technical Sales at Kalmus Engineering, a division of Thermo Voltek. He was previously employed at Scientific Power Systems and at Instruments for Industry. In both affiliations, he developed, or managed the development of, tube and solid state amplifiers, E-Field sensors, leveling preamplifiers and other leading developments. Mr. D'Arcangelis's previous experience included the development of antennas for high tech defense and commercial applications.

**Directions:** From I-35, take the Seguin-Boerne exit (46 - No. 187). Molly Joe's is approximately 1/4 mile west on your left.

**Reservations:** None necessary.

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**IEEE UT AUSTIN STUDENT BRANCH MEETING**  
 Thursday, April 10, 1997

**Time:** 4:30 PM to 5:30 PM  
**Place:** UT Austin Campus\*  
 Austin, TX

**Speaker:** Michael Dell  
 Chairman and CEO  
 Dell Computer Corporation

**Program:** Future of Computer Industry

**Biography:** As a 19-year-old freshman at the University of Texas, Michael Dell founded Dell Computer Corp. in May 1984. The company pioneered the direct sale of PCs and peripheral computing products and services. Since then, the company has become one of the largest PC manufacturers in the world, with more than 7,500 employees and revenues of nearly \$3 billion in 1994. Today, as a Fortune 500 company, Dell Computer Corp. designs, develops, manufactures, markets, services and supports a complete line of personal computers compatible with industry standards.

**SPECIAL INVITATION FOR MEMBERS TO ATTEND APRIL SECTION MEETING**

The Central Texas Section of the IEEE is looking for a permanent dining/meeting facility in Austin (and in San Antonio) where we could hold our Section and Chapter meetings each month. The motivation for having such a facility is to have our meetings at the same place (so members always know WHERE the meetings are being held and WHAT accommodations to expect) and make our members comfortable.

In order to explore the possibilities of such an arrangement and to gauge our members' response, the Section has decided to hold our April Section meeting at the Austin Club. The Austin Club is located one block east of Ninth and Congress in downtown Austin. I would like to extend a special invitation for all Section members to join us at our April Section meeting.

Bruce G. Williams, Chairman  
 Central Texas Section

**1997-98 NOMINATIONS FOR IEEE SECTION OFFICERS**

Elections will be held for the 1997-98 Section Officers during our April Meeting. The Nominations Committee has nominated the following:

- Chairman, Ernest A. Franke** (See March issue)
- Vice Chairman, Larry M. Deuser** (See March issue)
- Secretary, Farzan Abdolsalami** (See March issue)
- Treasurer, Joe Redfield**  
 Joe Redfield, a Registered Professional Engineer in the State of Texas, is a Senior Research Engineer at Southwest Research Institute. Mr. Redfield is a member of the Power Engineering Society and has been serving as Associate-Editor for the IEEE Analog for the past two years. At Southwest Research Institute, Joe is currently responsible for developing innovative approaches to flight crew training systems for the aerospace industry.



For further information, call UT Austin IEEE Student Branch Office at (512) 471-4500 or email: ieee@uts.cc.utexas.edu.

\*The room location will be posted on the front of the ENS Building on the UT campus.

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**IEEE UT AUSTIN STUDENT  
50TH ANNIVERSARY AND TIME  
CAPSULE DEDICATION  
Thursday, April 24, 1997**

- Time:** 3:30 PM to 4:30 PM  
**Place:** UT Austin Campus  
 Electrical and Computer Engineering Bldg (ENS) - Outside  
**Speaker:** Dr. Archie Stratton, PE  
 Prof. Emeritus of Electrical and Computer Engineering  
 Life Fellow of the IEEE  
**Program:** The Last Fifty Years of Technological Development  
**Speaker:** Dr. Ben G. Streetman, Dean  
 UT College of Engineering  
 Fellow of the IEEE  
**Program:** UT Austin College of Engineering in the 21st Century  
**Speaker:** Scott M. Blair, Chairman, IEEE  
 UT Austin Student Branch  
**Program:** UT Austin IEEE Student Branch: Past, Present and Future

The UT-Austin Student Branch of the IEEE was formed as a joint branch of the IRE and AIEE in late spring of 1947. This spring, the student branch turns 50 years old. Since that time, there has been an amazing amount of technological growth, thousands of students have graduated from the ECE Department, and the UT Student Branch of the IEEE has grown and thrived over the years. Today, the UT Student Branch is not only the largest

IEEE Student Branch in the world, but has also broken the membership records for an IEEE student branch.

To celebrate this historic event, a time capsule will be buried with items showing the current state of technology and Electrical Engineering student life. The capsule will be opened in 50 years at the 100th birthday of the student branch. Anyone interested in including items should contact the UT Student Branch.

Sponsors include UT Austin College of Engineering, UT Austin IEEE Student Branch, and IEEE Central Texas Section.

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**DO YOU QUALIFY TO BE A SENIOR MEMBER OF THE IEEE?**

Senior Members is the highest IEEE membership grade which may be obtained by application. Membership is open to engineers, scientists, educators, technical executives or those in IEEE designated fields who have at least ten years of active professional practice, with five or more years of significant performance.

For more information and/or to request a Senior Member Upgrade Kit, contact Bruce G. Williams at (512) 345-5773.

**CALENDAR OF MEETINGS FOR APRIL 1997**

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	1	2	3 CONSULTANTS NETWORK MTG (Austin)	4
7	8	9 CTEA MTG (Austin)	10 UT AUSTIN STUDENT BRANCH (Austin)	11
14	15	16	17 PEB MTG (San Antonio)	18
21	22 ECS MTG (Austin)	23 SECTION Joints with COMPUTER SOCIETY MTG (Austin)	24 EMC MTG (Austin) UT AUSTIN STUDENT BRANCH (Austin)	25
28	29	30		

**BACK BY POPULAR DEMAND!**

**14th ANNUAL AUSTIN ELECTRONICS EXPO '97**

May 15, 1997  
11:30 AM to 5:30 PM

Doubletree Hotel  
6505 North IH 35, Austin, TX

The Austin Electronics Expo '97 is the event for electronics professionals involved with the hardware and software design, purchasing, fabrication, assembly and test of semiconductors through electronics products in Central Texas. Austin Electronics Expo '97 is featuring 150 electronics industry suppliers as well as a symposium with several presentations from industry specialists with IBM, Motorola Xetel and others.

There is no charge for electronics industry personnel to attend the exposition; yet, the symposium will be \$25.00 for members and \$75.00 for non members. For more information, contact Pat Eagan at (512) 267-4620.

Presented by the Central Texas  
Electronics Association (CTEA)

**IEEE/PACE AND CENTRAL TEXAS  
CONSULTANTS NETWORK (CTCN) WORKSHOP**

May 17, 1997  
8:00 AM to 5:00 PM

Norris Conference Center  
1016 La Posada, Suite 280, Austin, TX

The focus of the First Annual Industry/Consultants Workshop in Central Texas is to provide a forum where industry trends can be discussed with multi-disciplined experts and potential time saving solution to present and future problems can be initiated. The membership consists of licensed PEs, ASQC certified quality and reliability engineers, senior professionals working at project management, software, hardware (mechanical and electrical), forensic analysis, expert witnessing, process control and improvement, etc. Another workshop feature is CTCN member presentations on determining product feasibility, flip chip attach to FR-4, advertising on the www, statistical process control, designing for noise minimization, genetic engineering. Industry representatives are invited to network privately for solutions to confidential problems. For information call Bill Thorpe at (512) 863-8621.