



# the Analog

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

Published 9 times a year, September through May

VOLUME 41, NO. 1  
SEPTEMBER 1997

## CENTRAL TEXAS SECTION PLANNING MEETING REPORT

On Saturday, August 9th, officers and volunteers of the section and technical society chapters met for six and a half hours to review accomplishments, goals and responsibilities of the different offices and committees and to make plans for the coming year.

Bruce Williams presented his Past-Chairman's report, reviewing the results of the membership survey taken last year and noting that the Section achieved 75 percent of the goals set for this past year. Ernest Franke reviewed highlights of the Region 5 meeting held last spring and discussed resources for officers and volunteers included in the Section Manual. Larry Deuser, Section Vice-Chair and Chair of the Programs Committee, discussed plans for very interesting and informative Section meetings during the coming year.

The Section officers, Technical Society Chapter Chairs, Section Committee

Chairs and representatives of the student branches each reviewed their '96-'97 activities and their goals and plans for the coming year. Section goals were adopted for next year including improving Section communications and Section Committee activities, holding a video conference between Austin and San Antonio, and initiating an industry partner program.

The proposed budget for 1997-98 was presented by Treasurer Joe Redfield and additional funding requests from different groups were discussed. Major items in the budget approved for the coming year include:

<b>INCOME</b>	
IEEE Rebate	\$16,000
Interest	1,000
Income from Investment Acct	5,000
Meetings	500
Other	500
<b>Total Income</b>	<b>\$23,000</b>

### EXPENSES

Publications	\$12,000
Meetings	13,600
Professional Activities	6,360
Student Activities	6,080
Grants and Awards	9,500
Membership Services	1,000
General Office Expenses	1,000
Travel Expenses	7,000
Equipment Expenses	3,000
<b>TOTAL INCOME</b>	<b>\$ 23,000</b>
<b>TOTAL EXPENSES</b>	<b>50,990</b>
<b>NETBUDGET</b>	<b>\$-27,990</b>

### PROJECTED END-OF-YEAR STATUS

Cash Reserves	\$ 4,614
IEEE Investment Acct	78,810
Net Worth	\$83,424

Additional details on goals and plans of the different groups will be carried in future Analog issues.

\*\*\*\*\*

## SEPTEMBER CHAPTER MEETINGS

### IEEE CENTRAL TEXAS SECTION MEETING

Joint with

### COMPUTER SOCIETY

Tuesday, September 16, 1997

**Time:** 6:30 PM - Social (cash bar)  
7:00 PM - Dinner (\$15, Students \$5)

7:30 PM - Program  
8:30 PM - Adjourn

**Place:** Holiday Inn Town Lake  
1-35 and Town Lake  
Austin, TX

**Speaker:** Dr. Jim Truchard  
President and CEO,  
National Instruments, Inc.

**Program:** Leveraging Technology to  
Build a Successful Company

National Instruments (NI) now offers over 500 instrumentation hardware/software products for a wide variety of computers/operating systems. However, 21 years ago they started with a

single IEEE 488 (GPIB) instrument control interface and software driver. This has led to world-wide leadership in this area; additionally, they have moved significantly into VXI, PCI, PC card (PCMCIA), ISA and NuBus products. They now offer DAQ, RTSI signal synchronization bus, SCXI signal conditioning, and FOUNDATION Fieldbus products.

Among the successful "Software is the Instrument" products, we find LabVIEW, LabWindows/CVI, Measure for Microsoft Excel, ComponentWorks, and VirtualBench. For industrial automation, NI offers BridgeVIEW with the power and flexibility of G graphical programming to MMI/SCADA. For modeling, postacquisition analysis and visualization HiQ is an interactive package to help pose, execute, and document real-world mathematical applications.

**Biography:** Jim Truchard is the co-founder of National Instruments. Prior

to NI, Jim was Director of Acoustics Measurements Division at Applied Research Laboratories of the University of Texas at Austin for 16 years. He earned his PhD in Electronics Engineering and MS and BS in Physics at the University of Texas at Austin.

In 1991, Truchard received the prestigious John Fluke, Sr. Memorial Award by *Test and Measurement World Magazine* for significant contributions to the electronics test industry. He was also recognized as the first High Technology Entrepreneur awardee for nurturing a high-tech enterprise into a rapidly growing, successful company in 1987. Jim has among other professional endeavors served UT on the ECE Visiting Committee and Engineering Faculty Advisory Council (EFAC), and was a founding member of the Austin Software Council. He has published numerous technical articles, co-inventor of LabVIEW, and designer of several GPIB (IEEE 488) products. He

continues to play a day-to-day role in the technical and strategic planning at NATI (Nasdaq).

**Directions:** Holiday Inn Town Lake is located on the Northwest shore. Take First St. exit if North Bound.

**Reservations:** Required by noon Monday, September 15:  
Austin..... Kelly Butler (512) 452-2811  
or kbutler@ccsi.com  
SA..... M. Abdolsalami (210) 431-2047  
or m.abdolsalami@ieee.org

★ ★ ★ ★ ★ ★ ★

**IEEE CONSULTANTS'  
NETWORK MEETING  
September 4, 1997**

**Time:** 6:30 PM - *Social/Networking*  
7:00 PM - *Program*

**Place:** Red Lion Restaurant  
North of 290E  
East Side of I-35  
Austin, TX

**Program:** Future of Section

The chairman will make a short presentation of the IEEE Section Meeting and the place of the Consultants' Network within the IEEE. Chapter business will include the preparation of short resumes for the 1998 directory and the next scheduled WorkShop.

For more information, please call:  
Austin..... Bill Thorpe (512) 863-8621  
SA..... Paul Alesu (210) 263-0033

★ ★ ★ ★ ★ ★ ★

**ELECTRON DEVICES SOCIETY  
MEETING  
Tuesday, September 16, 1997**

**Time:** 4:00 PM

**Place:** J.J. Pickle Research Center  
10100 Burnett Rd.  
Bldg. 16, Room 2.114 (directly  
above the Lobby across from  
elevators)  
University of Texas at Austin  
Austin, TX

**Speaker:** Gowri Chindalore  
University of Texas

**Program:** Experimental Studies of MOS  
Inversion and Accumulation  
Layers and Quantum  
Mechanical Effects and  
Mobility

Gowri L. Chindalore (S '93) was born in Bangalore, India, in 1971. He received his BS in Electronics Engineering from Bangalore University, India, in 1992 and MSEE from Purdue University, IN, in 1994. He is currently pursuing the PhD degree (expected November 1997) in Solid State Electronics at the University of Texas at Austin under Prof. Al Tasch. During his Master's at Purdue,

he worked under Prof. James Cooper and his research was on evaluating and improving the quality of the SiO<sub>2</sub>/6H-SiC interfaces. His PhD research interests include, experimental measurement of quantum mechanical effects in MOS inversion and accumulation layers, experimental extraction of majority carrier mobilities in MOS accumulation layers, and modeling.

**Directions:** The J.J. Pickle Research Center is located on the southeast corner of Burnet Road and Braker Lane in the Microelectronics and Engineering Research Building (MERB). The MERB is the first building on the left-hand side when you enter from Burnet Road into the J.J. Pickle Research Center. Attendees may enter by way of Braker Lane or Burnet Road. These roads may be accessed by way of either I-35, Loop 1/Mopac, or 183.

★ ★ ★ ★ ★ ★ ★

**SIGNAL PROCESSING/  
COMMUNICATIONS SOCIETY  
MEETING**

**Thursday, September 25, 1997**

**Time:** 6:30 PM - *Social*  
7:00 PM - *Dinner* (we will order  
from the menu; you will pay  
for your meal)

**Place:** Tree Tops  
New Braunfels, TX

This will be an informal dinner at which you will have a chance to meet and exchange ideas and information with your fellow society members. Suggestions for the desired format, time, and locations of future meetings will be solicited. Come and have a good time! We encourage you to bring your spouse or a friend.

**Directions:** From I-35, take the McQueeney exit (FM 725) and proceed west on Seguin St. toward downtown New Braunfels. Enter the circle downtown and take the first right onto San Antonio Street. Tree Tops is on the right just before you reach the bridge.

**Dinner Reservations:** Please call one of the following by Monday, September 22:  
Warren Rogers..... (830) 885-4411  
Cliff Denny ..... (210) 456-3919  
Scott Atkinson..... (210) 456-2101

★ ★ ★ ★ ★ ★ ★

**EMC SOCIETY MEETING  
Thursday, September 25, 1997**

**Time:** 6:30 PM - *Social*  
7:00 PM - *Dinner*  
8:00 PM - *Meeting*

**Place:** Tres Amigos  
Hwy 290 East, 3rd Exit  
Austin, TX

**Program:** EMC Symposium Synopsis

For further information contact:  
Jim Polonis.....(210) 522-2283  
mail: jpolonis@swri.org

★ ★ ★ ★ ★ ★ ★

**ENGINEERING IN MEDICINE AND  
BIOLOGY SOCIETY MEETING  
Tuesday, September 30, 1997**

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

**Place:** Tree Tops  
New Braunfels, TX

**Speaker:** Susan Zogbi  
Research Engineer  
Bioengineering Department  
Southwest Research Institute

**Program:** Election of Officers for 1997-98; ISO 9001, EN 46001, and the New FDA Quality System Regulation: An Overview

Ms. Zogbi will provide an overview of recent changes in the domestic and international regulations for designing and developing medical devices. Last fall the FDA published the Quality System Regulation which now includes Government regulation for product design. To harmonize with the rest of the world, many U.S. medical device companies have also adopted ISO 9001 and EN 46001 (European standard). Ms. Zogbi will focus on the quality system and engineering procedures required to meet these standards and regulations.

**Biography:** Susan Zogbi holds a bachelors degree in Mechanical Engineering from Penn State and masters degrees in Biomedical and Mechanical Engineering from Ohio State and the University of Virginia, respectively. At Southwest Research Institute, Ms. Zogbi provides regulatory affairs guidance and mechanical design expertise to the staff and clients. For the Bioengineering Department, she directed the implementation of the quality system and engineering operating procedures. She is currently developing a custom pressure-relief valve for a surgical system. Susan worked previously at the U.S. Patent and Trademark Office as a patent examiner and at the Texas Back Institute Research Foundation as a biomechanical design engineer.

Nominations and election of officers for 1997-98 will also be held.

**Directions:** From I-35, take the McQueeney exit (FM 725) and proceed west on Seguin St. toward downtown New Braunfels. Enter the circle down-

town and take the first right onto San Antonio St. Tree Tops is on the right just before you reach the bridge.

**Reservations:** Please call one of the following by 5:00 PM on Thursday, September 25:  
 Austin.....D. Kilpatrick (512) 834-6649  
 SA ..... Brian Robey (210)-522-5115

★ ★ ★ ★ ★ ★ ★

**OCTOBER MEETINGS**

**IEEE CENTRAL TEXAS SECTION MEETING**

Mark your calendar for the October Section Meeting to be held in San Antonio on Thursday, October 9. IEEE

Distinguished Lecturer Dr. Richard Doviak of the National Severe Storms Laboratory in Norman, OK will present the program on "Doppler Radar and Weather Observations."

Future Section Meetings will be held on the 2nd Thursday of each month. Topics will include:

- Current and Future EE Employment Opportunities (Austin and San Antonio area - two meetings)
- Future of Electric Rates and Competition in Central Texas - a video teleconference
- PATHFINDER to Mars - How to do more with less

- Additional IEEE Distinguished Lecturers

★ ★ ★ ★ ★ ★ ★

**IEEE CONSULTANTS' NETWORK MEETING**

Thursday, October 2nd is the date for the next Consultants' Network meeting. The guest speaker will be James J. Mercier. The tentative topic will be "Multidisciplinary Knowledge in the Department of Transportation." This meeting will be held at the Red Lion Restaurant in Austin, TX.

★ ★ ★ ★ ★ ★ ★

**SEPTEMBER 1997 MEETINGS**

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1	2	3	4 CONSULTANTS' NETWORK MTG (Austin)	5
8	9	10	11	12
15	16 SECTION joint with COMPUTER MTG (Austin) EDS MTG (Austin)	17	18	19
22	23	24	25 ASSP MTG (New Braunfels) EMC MTG (Austin)	26
29	30 EMBS MTG (New Braunfels)			

**WEB PAGE WORKSHOP (Tentative Schedule)**

**Tentative Date:** Saturday, October 25, 1997  
**Tentative Place:** St. Mary's University  
**Tuition:** \$50.00

**Duration:** Two 2-hour sessions with lunch break

Topics to be covered:

- |                                |                               |
|--------------------------------|-------------------------------|
| (1) The Basics                 | (4) Images                    |
| • Document Tags                | • Colors in Images            |
| • Tag                          | • Images in HTML Documents    |
| • Meta Information             | • Graphics Format             |
| • Headings                     | • Tips and Tricks             |
| • Paragraph Formatting         | (5) Design Guidelines         |
| • Character Formatting         | • Page Design an Layout       |
| • Miscellanies                 | • Navigation                  |
| (2) URLs and Links             | • Testing Documents           |
| • What is URL                  | (6) Publicizing Your Web Page |
| • Tags Used in URL             | • Generating Traffic          |
| (3) Tables (50 Minutes)        | • Places to Go for More Help  |
| • Important Tags               |                               |
| • Netscape Extensions          |                               |
| • Internet Explorer Extensions |                               |

