IEEE Central Texas Section

# ANALOG NEWSLETTER

#### Volume 49-4

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Newsletter of the <u>Central Texas Section</u> of the Institute of Electrical and Electronics Engineers, Inc.

Published monthly (Deadline for inclusion is the 25th day of the previous month). Dawn Roberson, Editor, (robersondj@ieee.org). Have a question or comment? <u>Contact us.</u>

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In February 2005, the next crop of new CTS IEEE Senior Members was announced! Please congratulate Teresa L McLaurin on her new membership grade! (John – any more info on her? All I have is her name – nothing else..)

# The Chairman's Column

## AS ALWAYS

We continue to work to get you more involved in your professional association. We always welcome your feedback (John.Purvis@ieee.org.). Please let all our leaders know how we are doing and please feel free to make any suggestions or recommendations.

## John R. Purvis, PE Chairman

# **Central Texas Section:**

As members of the Central Texas Chapter of the IEEE, we have been invited to submit proposals to organize sessions for the IEEE Communications Society 3rd Annual Design & Developers Forum to be held as part of IEEE Globecom 2005 in St. Louis, MO, Nov 28 to Dec 2, 2005. The success of the D&D Forum depends mostly on sessions organized by key presenters identified and

invited by us. Please also consider if you or someone else in your company would like to organize a session.

The deadline for proposal submissions for the D&D 2005 Forum is May 15, 2005. A call for proposals can be found at the following URL:

http://www.ieee-globecom.org/2005/developers.html.

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To All Region 5 Section Chairs

The IEEE Region 5 conference is fast approaching and the IEEE Denver Section with Region 5 would like to make the event a success.

There are two workshops that I would like to call your attention to: The NARTE prep workshop and the ABET Program evaluator workshop. These workshops may present a compelling argument for one or more of your members to come to Denver to attend the event.

Please post this message to any section email lists you control and post on your website if possible.

Thank you for your time,

Jim West IEEE Denver Section

# **Chapter Activities: Central Texas Section**

## Multi-Chapter Activities

**Event:** CTS and Joint Chapters Program in Austin **Place:** Avaya Auditorium in ACES Building, UT Austin **Time:** Thursday, May 12, 2005, 6-9 pm

**Program:** Rodger Ziemer, IEEE Fellow, and Region 5 Continuing Education Chair will present information on continuing education opportunities. Rodger has served IEEE in many capacities and was a distinguished lecturer for the Communications Society from 2001 to 2004.

**Abstract:** How do engineers stay current in today's rapidly changing technological world? The answer is to continue their education beyond the formal award of their bachelor's degree. As engineers, our technical knowledge becomes obsolete, it is said, within five years of graduation if nothing is done to renew it. The first part of this presentation focuses on this challenge to us as engineers and discusses ways to meet it. The second part discusses how the IEEE, at the local and national levels, can help in maintaining currency of technical knowledge. Options nationally include conferences and tutorials. At the section level, the options include sponsorship of distinguished lecturers and short course series. IEEE Sections that have sponsored short course series as a continuing education means will be used to provide examples of the types of courses offered. A strategy for determining topics and offering short courses in your section will be presented. The demand for continuing education opportunities will increase as more and more states are imposing continuing education requirements for the renewing of professional engineering licenses. In view of this, the procedure for offering continuing education units (CEUs) through the IEEE is described.

An Abstract of the presentation, Biography of the Speaker and Directions to Avaya Auditorium are available on the following link <u>http://ewh.ieee.org/r5/central\_texas/wie/meetings/meeting-centex-wie-050512.htm</u>.

We look forward to seeing you there!

(Joint) Circuits and Systems / Solid-State Circuits Societies Topic: Meeting: Cost: Reservations: Speaker: Directions For further information, contact Gerald Garcia at gerald.garcia@ieee.org

## (Joint) Signal Processing / Communications Societies [for more information]

**Topic:** Broadband wireless access with WiMax/802.16: Current performance benchmarks and future potential. (Broadband wireless access with WiMax/802.16: Current performance benchmarks and future potential) **Meeting:** 6:30 PM Thursday, April 21, 2005

Meeting: 6:30 PM, Thursday, April 21, 2005

Cost:

**Reservations:** Speaker: Dr. Jeffrey G. Andrews, WNCG, UT Austin Directions: Avaya Auditorium, University of Texas Campus

**Note that our dinner is now catered, so we will need to be paying for it.** Cost for Dinner:

Members with reservation - \$5.00 Members at door - \$7.00

- Non-members with reservation \$7.00
- Non-members with at door \$8.00
- Students Free! Free! Free!

Please RSVP to Howard Headrick at <u>file:///C:/My%20Documents/professional/IEEE%20Analog%</u> 20Editor/

#### Abstract:

The IEEE 802.16 family of standards, and its associated industry consortium WiMax, promises to deliver high data rates over large areas to a large number of users in the near future. This exciting addition to current broadband options such as DSL, cable, and Wi-Fi promises to rapidly provide broadband access to locations in the world's rural and developing areas where broadband is currently unavailable, as well as competing for urban market share. WiMax's competitiveness in the marketplace largely depends on the actual data rates and ranges that are achieved, but this has been difficult to judge due to the large number of possible options and competing marketing claims. This talk will first provide a brief tutorial overview of 802.16. Then, based on extensive recent studies, we will present the realistic attainable throughput and performance of expected WiMax compatible systems based on the 802.16 standard approved in June 2004 (now named 802.16-2004). We also suggest future enhancements to the standard that could at least quadruple the achievable data rate, while also increasing the robustness and coverage, with only moderate complexity increases.

#### **Bio**:

Jeffrey G. Andrews is an Assistant Professor in the Department of Electrical and Computer Engineering at the University of Texas at Austin, in the Wireless Networking and Communications Group (WNCG). He received the B.S. in Engineering with High Distinction from Harvey Mudd College in 1995, and the M.S. and Ph.D. in Electrical Engineering from Stanford University in 1999 and 2002, respectively. He helped develop Code Division Multiple Access (CDMA) systems as an engineer at Qualcomm from 1995 to 1997, and has served as a frequent consultant on communication systems to numerous corporations, startups, and government agencies, including Microsoft, Palm, Ricoh, and NASA.

Dr. Andrews serves as an associate editor for the IEEE Transactions on Wireless Communications. He also is actively involved in IEEE conferences and is co-chairing the DSP for wireless applications area at the fall 2005 VTC, as well as serving as a member of the technical program committee for ICC and Globecom.

The IEEE Communications Society/Signal Processing Society of the Central Texas Section holds technical meetings monthly and various special meetings and conferences throughout the year. Meetings are generally held from 6:30 to 9:00 pm on the third Thursday of each month at the Avaya Auditorium on the University of Texas campus in Austin, TX. More information on our chapter activities can be found by visiting our web site at: http://www.cts-comsoc-sp.org

Computer Society - Austin [for more information]

**Topic:** Software Development Challenges for the 21st Century **Meeting:** Tuesday, April 19, 2005, 6:30 pm **SPECIAL DATE! Cost:** Free

**Reservations:** N/A

Speaker: Steven Teleki, Software Development Director, Webify Solutions, Inc., Past Chairman, IEEE Computer Society, Austin Chapter

Directions: National Instruments, 11500 North MoPac, Building C, room 1S15, Austin, TX 78759

See <u>http://austin-cs.org/</u> for detailed directions and for last minute information. This presentation is open to the public.

For more details, see our Society website.

**Computer Society - San Antonio** [for more information] **Topic:** Student Presentation Night (mostly Senior Design Presentations) Meeting: Thursday, April 14, 2005 **Cost:** \$10 members/ \$2 students/\$13 non-members **Reservations: Speaker:** Local University Students **Directions:** Networking, Dinner, and Program will be in the Skyline Room, Coates Center, Trinity University, San Antonio, TX. 6:30 - Networking 7:00 - Dinner 8:00 – Program The meeting is open to the public. Please note that we have parking instructions on the Web site. The Alamo Stadium parking is reserved for Alamo Stadium Event parking. Please check out the instructions at http://www.ieee-cscts.org/meeting\_details.htm#Location%20&%20Directions for the parking by Laurie Auditorium. For more details, see our Society website. Consultant's Network [for more information] **Topic:** Speaker: **Date:** (2nd Thursday) **Time:** 6:30pm - Networking, 7:00pm - Program Location: China Star Restaurant, 6134 Hwy 290E, Austin, Texas, located at the north east corner of IH-35 and 290E The consultants' web directory has been updated. The directory is to be found at http://www.alesu.com/xltrp/ieeecons/listzero.htm Electromagnetic Compatibility Society [for more information] Speaker: **Topic:** Meeting: Cost: **Reservations:** Directions For more information, see the EMC website (above). **IEEE EMC Symposium Coming Back to Austin!** For the first time since 1997, the IEEE EMC Symposium will be returning to the Central Texas area. The Central Texas EMC Society was recently awarded the 2009 Symposium and the society looks forward to putting on another great event. If you are interested in assisting with this event, please see the website for contact information. Electron Devices Society (for more information: www.ieee.org/texedc) **Topic:** Speaker: Meeting: Thursday - March 31, 2005 6:00-6:30pm - Refreshments 6:30-7:30pm - Presentation Cost: **Reservations: Directions:** MER160, Room 2.114 J.J. Pickle Research Campus 10100 Burnet Road, Building 160, Austin, TX 78758 (view map)

**RSVP:** Andy Lin andrew.lin@freescale.comFor information, contact Thuy Dao, thuybdao@ieee.org.**Engineering Management Society** [for more information]**Topic:** The Alchemy of Teams**Speaker:**Bijoy Goswami

**Date:** Tuesday, April 5, 5:45 pm

**Time:** 5:45pm networking and dinner

6:45pm discussion

8:30pm meeting ends

Location: El Gallo Restaurant, 2910 S. Congress Ave. Austin

**Cost**: \$15 includes a selection of 7 entree choices, coffee/tea and dessert.

RSVP: Leslie Martinich <u>lmartinich@ieee.org</u>

Many teams fail because they have the Maven founder but lack the ability to forge relationships with partners (Relater) or the ability to evangelize their innovation (Evangelist). The best companies have management teams that blend all three capabilities. Through further investigation of the MRE framework, we will take a look at how the core energies can be best used for building more efficient and successful teams.

Bijoy is the co-founder and CEO of Aviri. Bijoy's diverse background provides him a unique vantage point from which he synthesizes disparate thinking into focused and actionable viewpoints. Bijoy's lifelong passion for personal and organizational transformation led him to the development of the MRE Framework. The Framework categorizes people into one of three core types—Maven, Relater, or Evangelist—and shows how these types affect our perceptions of the world. A synthesis of elements from eastern philosophy, the social sciences, and management theory, the MRE Framework is a powerful, practical tool for understanding yourself and others, for building better teams, designing better products, making sense of social and economic policies, and much more. His new book, The Human Fabric explores the MRE framework in detail.

For more information on Chapter Activites, please contact Leslie Martinich at 512-423-5121.

## Other Upcoming Engineering Management Events:

<u>2005</u>:

July 10-13, 2005: International Professional Communications Conference (IPCC), www.ieeepcs.org/conference/limerick, Limerick, Ireland

July 27-29, 2005: <u>6<sup>th</sup> Annual IEEE/UT Engineering Management Conference (Note new dates!)</u> Managing in Uncertain Times

CALL FOR PAPERS (IEEE Program Chair, sprough@austin.rr.com) Deadline for papers: March 1, 2005

Notification of acceptance: April 1, 2005

Deadline for final paper version: May 1, 2005

More info: http://lifelong.engr.utexas.edu/emc/2005/index.cfm

Sept 8-10, 2005: International Engineering Management Society Conference, St. Johns, Newfoundland

For information regarding chapter activities (and those wanting to volunteer), contact **Leslie Martinich** (<u>leslie@competitivefocus.com</u>) (512-423-5121).

**Engineering in Medicine and Biology Society Topic:** RF Dosimetry Standards for the Human Body **Meeting:** Wednesday, April 27, 6:30-9:00p **Cost:** \$10 members/ \$2 students/\$13 non-members

**Reservations:** Not required, but please email <u>Garrett Polhamus</u> so we have a head count for dinner. Speaker: Dr Michael Murphy

**Directions:** Networking, Dinner, and Program will be in the Loeffler Room, BSB 3.03.02 on the University of Texas at San Antonio campus.

6:30 - Networking

7:00 - Dinner

8:00 – Program

The meeting is open to the public.

This will be our first meeting since the retirement of Dave Kilpatrick. It will be an initial business meeting, followed by the presentation.

For further information, please contact Dawn Roberson,210-458-5520, robersondj@ieee.org.

#### Graduates of the Last Decade (GOLD)

**Topic:** Networking

Meeting: Sunday, April 17th 4pm-7pm

Speaker:

Cost:

#### **Reservations:**

**Directions:** Dave 'n Busters on Hwy 183 at Mopac Expwy, in Austin

Meet other young, engineering professionals over appetizers in the billiards area. For details, contact Julian Anugom <Julian.Anugom@conexant.com> or Kristi Hummel <khummel@ieee.org>. See you there!

For more information, please contact Julian Anugom at julian.anugom@conexant.com.

Laser and Electro-Optics Society Topic: Speaker: Date: Location: Building 160, Microelectronics Research Center Room 2.114 J. J. Pickle Research Campus, UT Austin 10100 Burnet Rd., Austin, TX 78758

For information contact Ray Chen <u>raychen@uts.cc.utexas.edu</u>.

Power Engineering Society [for more information] Topic: Power Cords 101 - An overview of requirements for power cords in various countries Speaker: Jay Voigt, Dell Enterprise Regulatory Engineer Meeting: April 19, 2005 (3rd Tuesday) 6:00PM Social 6:30 to 7:00PM Dinner 7:00 to 7:30PM Business Meeting 7:30 to 8:30PM Program Cost: Dinner is \$10.00 – IEEE Members \$12.00 – Non-IEEE Members Free for students.

**Reservations:** For further information, please contact Roy Matthews, P.E. or Susan Thornton at

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442-8085, ext. 25 or go to our web site at <u>http://ewh.ieee.org/soc/pes/centraltexas/</u> **Directions:** Dell Parmer Campus, Parmer South 4 Building, Victoria Conference Room, Austin, Sign in at the Security Desk next to the conference room.

#### **Future Events:**

May 17, 2005 (3rd Tuesday) Keith Hendrickson, Dell WW Regulatory Investigations & Globalization Engineer RFID - New Uses for an Old Technology 6:30 - 8:30pm, Dell Parmer Campus, Parmer South 4 Building, Victoria Conference Room Sign in at the Security Desk next to the conference room.

For further information, please contact Susan Thompton or Roy Matthews at 512-442-8085 ext 25

Product Safety Engineering Society [for more information]

Topic:

Speaker:

**Date:** 6:30 to 8:30pm (NEW: 3th Tuesday of the month) **Location:** Dell, Inc. Parmer South #4, "Victoria" conference room (off lobby)

We encourage you, others in your organization, or other interested parties to participate in our meetings every month. The PSES meets at Crossroads Systems, 8300 N. MOPAC in Austin, on the third Tuesday of every month except in November/December. A combined monthly meeting is held in early December to allow members and guests to enjoy the Thanksgiving and Christmas holidays. For further information about the PSES, please contact Dale Ritzen at (512) 651-5338.

Chapter Chair: Daniece Carpenter (<u>daniece\_carpenter@dell.com</u>).

Women in Engineering [for more information] Next Meeting: Saturday, April 2, 2005 Program: Expanding Your Horizons Conference Place: University Teaching Center at UT Austin. Time:

The conference is intended to promote interest in science and engineering for girls in grades 6 through 9. This is the 11th year in Austin. Details and registration at <u>http://www.twistinc.org/</u>.

#### **Upcoming Events:**

Date: May 12 Time: 6-9pm Place: Avaya Auditorium, ACES Building on UT Campus Speaker: Rodger Ziemer, IEEE Fellow and Chair, Continuing Education Chair for Region 5 to speak on Continuing Education Opportunities

Additional details and directions to the center are posted on the WIE website at <u>http://ewh.ieee.org/r5/central\_texas/wie</u>.

## **IEEE Central Texas Section Student Branches**

The four student branches UT Austin (UTA), UT San Antonio (UTSA), St. Mary's and Trinity are getting ready to attend the Region 5 Conference in Denver (April 8-10). To help the student branches defray the travel expenses to Denver, the Central Texas Section Executive Committee allocated a one-time travel budget item of \$7,500 for the student branches. This amount will greatly help the student branches in sending their members to Denver to compete in the robotics competition, the design competition, and to participate in student leadership forum. The student branches are most appreciative of the support of the Section in this allocation, and their resourcefulness is making these funds go a long way. The successes of the student branches will be reported in the May Analog.

The Region 5 Conference next year will be held locally in San Antonio. UTSA will be the host location, and the UTSA student branch is actively participating in the planning and holding of the Region 5 Conference. Mr. David Walker, a past chair of the UTSA student branch, is the director of Student Activities. This is a necessary and important position for the Region which carries large responsibility and considerable work. David's participation and involvement in his student branch and the Central Texas Section makes him well qualified to take on this challenge. From the planning meetings David has called to date, this will be a great success!

For information on events, click on the [for more information] links below: **St. Mary's University – San Antonio** [for more information]

## Trinity University – San Antonio

Contact Faculty Advisor: Farzan Aminian, Email: <u>farzan@engr.trinity.edu</u> Branch President: Brandi House, Email: <u>Brandi.House@Trinity.edu</u>

University of Texas at Austin [for more information]

University of Texas at San Antonio [for more information]

# **Upcoming Local Conferences**

**2005 IEEE International Electric Machines & Drives Conference** – (**IEMDC**). This conference will be held 15 May - 18 May 2005 at the Hilton Palacio Del Rio in San Antonio, TX. Check the IEEE conference website for more details.

**2006 World Congress on Information Technology Brings Legacy to Texas.** The World Congress on Information Technology (WCIT 2006) accepted the official crystal from WCIT 2004 symbolizing Austin, Texas, as the next official host of the 15th World Congress. The World Congress, which will be held in Texas May 1-5, 2006, will attract an estimated 2,000 global leaders from business, government and education to discuss IT policy, direct the future of technology, and drive social and economic development.

http://click.austinxl-mail.com/sp/t.pl?id=926096:371346593

# **Other Important Events and Notes of Interest**

2005 IEEE REGION 5 Technical, Professional and Student Development Workshop

(**TPS**). April 7 – 8, 2005, Coors Center, University of Colorado, Boulder, Colorado <u>http://r5.ieee-denver.org/</u>. The 2005 Technical, Professional and Student (TPS) Development Workshop will provide a forum for interdisciplinary interaction and exchange on new technologies, new paradigms and ideas, and a program of events that will help in our technical and professional development. TPS will have a balanced program of technical advances, tutorials, and professional development events. On-site meal breaks will provide an opportunity to network with leading engineers, managers, executives, and other professionals.

In addition to technical paper sessions, this event will include in-depth tutorials on RF Engineering, Power Engineering, Six Sigma for Competitive Advantage, Intellectual Property, NARTE Certification Preparation, Career Planning and Management, and other topics.

**Conference Contacts:** 

Technical Program Chair: Dr. Bill Newhall, Ball Aerospace & Technologies Corp., wnewhall@ball.com General Chair: Dr. Pankaj Goyal, MicroMega, <u>chair@r5.ieee-denver.org</u>

TPS 2005 (April 7-8, 2005) will be held in conjunction with the IEEE Region 5 Leadership Workshop (April 9-10, 2005).

## **Opportunities for the new CEU requirements for PEs**

#### ENGINEERING ETHICS SHORT COURSES

one-hour ethics courses are held in Austin, Texas

CEUs: 0.1

https://ruby1604.utsa.edu/exchweb/bin/redir.asp?URL=http://www.UTclee.org

June 2, 2005

September 1, 2005

November 3, 2005

*Editor's Note*: There were more listed, but they were later in the year – check the website to get more details of those later in the year - dr

file://C:\Documents and Settings\dawnlee.roberson\My Documents\professional\IEEE Ana... 12/6/2005

# More IEEE Information:

## **THE INSTITUTE**: can be found at <u>http://www.ieee.org/theinstitute</u>

**IEEE-USA NEWS & VIEWS** : IEEE Career-Building Resources: \*BOOKMARK THIS SITE\*: For career-building resources, including articles and product and service notices, visit IEEE-USA's CAREER NAVIGATOR at: <u>http://ieeeusa.org/careers/</u>.

# **Central Texas Section Editor's Notes**

The goal of this newsletter is to provide the more than 4700 members of the Section with up-to-date and meaningful information. We welcome contributions and suggestions that will improve the newsletter. Please contact the editor, Dawn Roberson at <u>robersondj@ieee.org</u> if you have any thoughts or suggestions. The deadline for submission is the 25th of the month.

The purpose of this Email list is to send notices of general interest to our Section IEEE members.

If you chose to subscribe, please send an Email to: <u>Majordomo@majordomo.ieee.org</u> with "Subscribe cts-section" in the body of the Email message.

If you chose <u>not</u> to receive these messages, please;

- 1. Address an e-mail message to listserv@listserv.ieee.org
- 2. Put the following in the body of the message: signoff cts-section

3. Do not include your name or e-mail address in the body of the signoff message. The message should be sent from the mail client you use to subscribe to the list