



Dallas Section

Direction

Volume 50, Number 1

September 2006

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From the Chair

by Kaijian Shi

Dallas Section is back to normal activities after the summer break. I hope everyone had wonderful time during the break. In the past two months, CVT and CE chapters jointly organized a half day Wireless Multimedia Symposium where 30 people attended. EMC Chapter organized a very successful one-day EMC Colloquium where two distinguished IEEE lecturers talked to 56 attendees and 27 exhibitors came from all over the US. Excellent job! I'd like to thank EMC, CVT and CE chapter officers for successfully organizing the conferences to stimulate and promote IEEE and engineer community in Dallas.

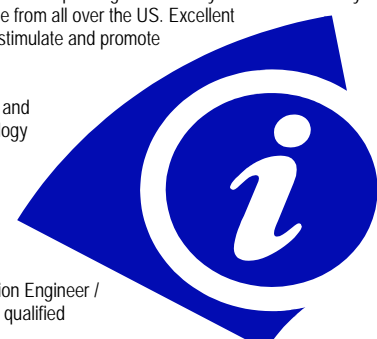
Next month, CAS chapter is holding a workshop "Circuits & Systems: Design, Applications, Integration and Software" (http://www.ewh.ieee.org/soc/cas/dallas/wks2006) and Section will hold an Emerge Technology Conference (http://www.ieee-etc.org). You are encouraged to participate.

I am very please to inform you that a new Dallas chapter of Computational Intelligence Society (CI) has been approved by IEEE national. Please join me welcoming Robert Marks (Robert_Marks@baylor.edu) Chair of CI chapter and his team.

For those outstanding application engineers, I am glad to inform you that IEEE has added an "Application Engineer / Practitioner" category in IEEE Fellow nomination and selection to stimulate more nominations of highly qualified Application Engineers and Practitioners. Please take a look at the web link www.ieee.org/fellows.

The 2006 BEST (Boosting Engineering, Science, and Technology) Robotics Competition http://www.dallas-best.org is looking for volunteers to mentor and coach student teams. I'd like to encourage chapters and individuals help this event. Please contact Jon Spangler, j_spangler@raytheon.com, 972-344-8057

We are approaching IEEE Dallas Section Officer election time. If you would like to contribute to section activities in 2007, please contact Election Committee Chair Dane Watson (dane.watson@ieee.org).



DALLAS SECTION SEPTEMBER 2006 MEETING

"How to keep the pieces of your financial picture together"

Date: Tuesday, September 12th, 2006 Dinner/Section business: 6:30 PM – 7:00 P.M./Program: 7:00 ~ 8:00 P.M.

Place: Holiday Inn Select, Richardson 1655 N. Central Expressway

Speaker: Mike Dulac (Citibank) & Kenneth J. Belter II (Citicorp Investment Services)

Program Summary: This is going to be a financial seminar that will give you an overview of your entire financial situation. We will take a look at a comprehensive strategy to look at both your short term and long term perspectives. We will take a look at protecting and growing your lifestyle, assets and leaving your legacy.



There is no membership requirement to attend this meeting.

For further info contact Dallas IEEE Section Activities Chair Will Lumpkins at (214) 543-0858. Please send RSVP to xillia@ieee.org

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Microwave Theory & Techniques (MTT)

Chair Robert Eye (972) 994-5818

Power Electronics (PELS)

Chair Don Marabell (469) 330-9100 x230

Reliability (RL)

Chair Lon Chase (972) 952-3138

Signal Processing (SP)

Chair Nasser Kehtarnavaz (972) 883-6838

Solid State Circuits (SSC)

Chair Xiaopeng Li (214)480-4175

Aerospace & Electronic Systems

Visit the IEEE AESS Dallas Chapter web site at <http://ewh.ieee.org/r5/dallas/aes>

For information, please contact Tim D. Reichard (972) 344-7512

Tim_D_Reichard@raytheon.com, Boyd Gallatin (903) 457-6689 Boyd.Gallatin@L-3Com.com, or Mark Gober (903) 457-5122 Mark.D.Gober@L-3Com.com

Antennas & Propagation

For more information, please contact:

Dr. Choon Sae Lee, AP Chairman, 214-768-3257, csl@engr.smu.edu
Anand Lakshmanan, AP Secretary, 469-499-6789, anand.em@gmail.com

Circuits & Systems

Please visit our Website listed below for latest updates, abstract of talk and seminar details <http://ewh.ieee.org/soc/cas/dallas/>

Communication & Vehicular Technology

"The Texas RF Innovation & Technology Center"

Date: Tuesday, September 19th, 2006
Luncheon: 11:00 AM / Program: 12:00 PM – 1:00 PM

Cover: \$5 for IEEE Members, \$10 for non-IEEE Members/Guests (includes luncheon)

Place: Holiday Inn Select, 1655 North Central Expressway, Richardson, TX

Speaker: **Dr. Richard E Billo, Associate Dean of Engineering Research, University Texas at Arlington**

Program Summary: The Texas RF Innovation & Technology Center (The "Texas Center") is a collaboration of four North Texas Universities including UT Arlington, UT Dallas, University of North Texas, and North Lake College. The Center is designed to meet the workforce and product development needs of the more than 70 RFID technology development companies in the Dallas – Ft. Worth Metroplex. The research focus of the Center encompasses such diverse technology areas as Wireless Sensors, Wireless Medical Devices, Wireless Secure Supply Chains, and Wireless Mesh Networks. Additional capabilities include antenna design, performance testing of new RFID products, and deployment of existing RFID applications. The education programs of the Center include an Executive RFID Education Program offered at UT Dallas and an RFID Certificate Program offered at North Lake College.

Richard Billo is Associate Dean of Engineering Research at the University of Texas at Arlington. He specializes in such diverse technology areas as radio frequency, automatic data capture, and nanotechnology device development. Dr. Billo has been awarded over \$20 million in grants and gifts and has published over 70 papers. He currently serves as the Associate Editor of the International Journal of Radio Frequency Identification Technology and Applications. His research has led to the adoption of two American standards in automatic data capture including the current ANSI standard for passive RFID tag technology. Dr. Billo has conducted research for such organizations as the National Science Foundation, the U.S. Department of Defense, and the Canadian Department of National Defense. In addition, he has performed research for over 30 corporations including such companies as Intel, Motorola, Symbol Technologies, and Hewlett Packard. Dr. Billo has received awards for Outstanding Faculty, as Intel Faculty Fellow, and the Whiteford Faculty Professorship.

Meeting details for Communication & Vehicular Technology Dallas Chapter can be found on their web site. Visit <http://www.cvt-dallas.org/>

Computer

"Beyond the System Shell – A Journey from Good to Great Requirements"

Date: Friday, September 22nd, 2006
Lunch/Chapter business: 11:35 AM – 12:15 PM
Program: 12:15 PM - 1:00 PM

Place: Texas Instruments (South Campus)
12500 TI Blvd., Dallas, TX

Speaker: **Tony Chen, Co-Founder and Principal Analyst, Seilevel, Inc.**

Program Summary: Today, only a small percent of IT projects succeed while the rest significantly under perform or fail outright. Seilevel will begin the presentation by delving into the statistics behind this statement and then move on to discuss how poor software requirements are a primary reason. We will explore the root causes behind the problem and then provide suggestions as to how companies can improve the situation. A key insight is the notion that requirements engineering will never be a one-size-fits-all discipline. Success requires that companies not only find the right people and give them

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the appropriate resources, but also allow them to develop and apply a varied set of tools for meeting disparate software requirements challenges. Of these tools, perhaps none are more important than the set of models that can drive completeness and clarity into software requirements specifications. The presentation will close with an overview of these models including examples of use cases, state diagrams, decision trees, and others.

Tony Chen is Co-Founder and Principal Analyst at Seilevel, where he is working hard to push the envelope of requirements definition. Tony's range of expertise includes software architecture, project management, strategic planning, system design and development, requirements analysis, and database applications. Always looking for practical and refreshing methods for achieving greater success in requirements elicitation and documentation, Tony has been instrumental in driving Seilevel's expertise in requirements definition. Seilevel is a professional services firm located in Austin, Texas, with a simple mission: to redefine the way companies create software requirements.

Remember to visit <http://chapters.computer.org/dallas/> for updates, to download presentations, or view upcoming calendar!

Consultants Network

"The Artful Dodge: How to Survive Long Enough to Make Effective Presentations"

Date: Monday, September 11th, 2006,
Social/Networking/Dinner 6:15 pm
Program 6:45 pm.

Cover: \$5 for IEEE Members, \$15 for non-IEEE Members/Guests (includes light supper buffet)

Place: Holiday Inn Select, 1655 North Central Expressway, Richardson, TX

Speaker: **John J. Barnes**

Program Summary: John Barnes will give a talk on "The Artful Dodger" or how engineers and scientists can avoid making the kind of presentation mistakes that are almost bred into them by their disciplines. For example, no matter how elegant and promising an experiment or product design may be, what is the next step?: figuring out not only how it can break but almost every conceivable contingency per the specs. Now this is a great mindset when you are stress testing concrete, but it is not an excuse for stress testing a live audience. And by the way, when making a public presentation that is important to your career, your livelihood, and your status with "the group", the stress points do rank up there with live combat, according to psychologists. As a former coach of the Pittsburgh Steelers, Chuck Noll, once noted, "To win a game, you first have to not lose it." So there are very good reasons to find alternatives to dying on stage. Come immerse yourself in the Artful Dodger principles for a humorous but dead-on seminar on how to do it right.

Prepared by a couple of hard decades of "manual labor" in technical and marketing communications for such companies as Texas Instruments and FSI International, John dedicates about half of his time to investor communications & relations and capital solicitation, in affiliation with Turner Business Capital of Austin, Texas, and the other half organizing and creating investment, trade, and educational conferences in affiliation with UT Dallas. John is also the director of public relations for the MIT Enterprise Forum and a vice president for the Irish American Society of Dallas – and is active in other internationally oriented organizations, especially helping to organize presentations and events. Contact: john.james.barnes@comcast.net

Contact information: Maura Schreier-FLeming 972 380 0200 or info@bestatselling.com

Consumer Electronics

"The Challenges of Digital Displays)"

Date: Tuesday, September 12th, 2006
Lunch/Chapter business: 11:15 am – 11:45 am
Program: 11:45 am - 12:45 PM

Place: Holiday Inn Select, 1655 North Central Expressway, Richardson, TX

Speaker: **Sue Hui, Texas Instruments DLP**

Program Summary: Digital displays are rapidly growing to replace the century old CRT. They are thinner, lighter, and sharper than the CRT. Despite the higher cost, consumers are buying them at a rapid pace. However, as any new technology, there are growing pains. Whether it is LCD (LCOS), Plasma, or DLP® technology, digital displays have their challenges. This talk will examine the advantages and disadvantages of each major digital display technology. Particularly, this talk will give in-depth discussions of DLP® technology from Texas Instruments. Last but not least, for all who are interested and able to take the time, a tour of the DLP® demo center located in Spring Creek and US-75 in Plano will be offered after the presentation.

Sue Hui is currently with Texas Instruments DLP® business where she develops algorithms and software that enable DLP® display technology. Her technical

experiences lie in the areas of algorithm and software development in broadband communications (e.g. modems), network communications (e.g., echo cancellers), audio signal processing, and most recently digital video processing. She holds BS, MS, and Ph.D. degrees in electrical engineering, and was a lecturer in Southern Illinois University and an assistant professor in Oregon State University respectively from 1988 to 1991.

There is no membership requirement to attend this meeting.

For additional information, please contact Dr. Baowei Ji at (972) 761-7167 baowei.ji@samsung.com or Sam Broyles at (214) 480-3232 sam.broyles@ti.com

To download presentations, view upcoming calendar, etc. check out our web site at: <http://www.DallasCES.org>

Electromagnetic Compatibility

"Wireless Concepts: The Use and Abuse of Wireless Technology"

Date: Tuesday, September 19th, 2006
Refreshments & Networking: 6:00 PM / Program : 7:00 PM
RSVP to Bill Paschetag, bpaschetag@IEEE.org

Place: NTS
1701 East Plano Parkway, Plano, TX

Speaker: Mr. Tom Tidwell, Wireless Manager of NTS - Plano

Program Summary: There are many things to consider when integrating a wireless module into a product. Understanding how best to use wireless technology will prevent you from being abused during the design and approval process.

- What wireless technology is best suited for the application?
- Is it best to buy an approved module?
- What restrictions of use might there be?
- What additional EMC design challenges will there be?
- How will the regulatory testing be performed?
- What administrative challenges will be faced during the regulatory process?

In this presentation we will attempt to discover the answers to these and many of the other mysteries of life! We will explore some of the coming wireless technologies and some of unique measurement challenges they present.

Tom Tidwell has worked for 20 years in the testing and global certification business, primarily in the areas of Electromagnetic Compatibility, and Wireless. He has eight years as a NARTE certified EMC laboratory engineer. Tom trained as a TCB review engineer

for performing review of FCC and Industry Canada Equipment Authorization filings. Currently Mr. Tidwell is employed by NTS Corporation as Wireless manager in the Plano, Texas facility.

For more information, visit the Dallas IEEE/EMC Chapter Website (<http://www.DallasEMC.org>), or contact Bill Paschetag, bpaschetag@IEEE.org

Electron Devices

For program information please contact Zeynep Celik-Butler, (817) 272-1309, zbutler@uta.edu

Engineering Management

"Fall Kick-Off"

Date: Friday, September 8th, 2006
Lunch/Chapter business: 11:30 AM
RSVP Bob Bishop, r.bishop@IEEE.org

Place: Holiday Inn Select, 1655 North Central Expressway, Richardson, TX

Speaker: Mr. Johannes M.C. (Hans) Stork, Senior Vice President and Chief Technology Officer, Texas Instruments Incorporated

Dr. Stork is Senior Vice President, and Chief Technology officer, of Texas Instruments. As Director of the Silicon Technology Development organization, his primary responsibilities are the development of advanced CMOS, packaging and mixed signal process technologies.

He joined Texas Instruments in September 2001, after being the Director of the Internet Systems and Storage Lab at HP Laboratories, Hewlett-Packard from 1999 until 2001. He

had joined Hewlett-Packard in 1994, holding the position of Director of the ULSI Research Lab between 1995 and 1999, after several management jobs at IBM.

Dr. Stork started his professional career in 1982 at IBM's T.J. Watson Research Center as a research staff member in the bipolar technology and circuits area. In 1987 he formed an exploratory devices group and this team demonstrated record breaking SiGe HBTs. Hans was awarded two Outstanding Technical Achievement Awards from IBM. He has written or co-authored nearly 100 cited papers and holds eleven US patents. He was elected IEEE Fellow in 1994 for his contributions to SiGe devices and technology.

Hans has served on various conference and IEEE committees, including IEDM, VLSI, and BCTM for many years between 1986 and 1996. Presently, Dr. Stork serves on the Board of Directors of Sematech, and is chairman of the Semiconductor Research Corporation (SRC) board of directors. He has been a member of the SIA Technology Strategy Committee since 1999.

For program information please contact Bob Bishop, 903.482.5320 or r.bishop@IEEE.org

Industry Applications

If you are interested in this society please contact Dr. Tim Ozugur at (972) 477-2737 Tim.Ozugur@alcatel.com

Lasers & Electro-Optics

Details for IEEE-LEOS Dallas Chapter seminar series are listed on our website at <http://www.engr.smu.edu/leos/>

Microwave Theory & Techniques

Program information for the Microwave Theory and Techniques Dallas Chapter can be obtained by e-mailing either Bob Eye (reya@tqtx.com) or Bob Coats (rcoats@flash.net).

Power Engineering [Fort Worth, TX]

For Program information please contact Julio Chavarria at jchavar1@txued.com, or telephone number 214-743-6681.

Reliability

"RoHS Compliance Testing for the Electronics Industry"

Date: Tuesday, September 19th, 2006; 6:30 PM

Place: UTD Waterview Science Technology Center (WSTC Bldg. Room CSEPI)
17919 Waterview Parkway, Richardson, TX 75252

Speaker: Mr. Glenn Robertson, Process Science, Inc.

Program Summary: RoHS and other legislative initiatives for the elimination of Lead and other materials in electronic products continue to create confusion. The number of analytical techniques to quantify the concentration of RoHS-restricted elements is limited. Most of these methods are destructive and rather costly. One exception is analysis by X-ray Fluorescence, which is non-destructive and relatively fast and inexpensive. In this presentation we will discuss the operating principles of XRF, and the application of XRF and other analytical techniques to RoHS compliance testing.

Glenn Robertson is a Process Engineer with Process Sciences, Inc. in Leander, Texas. He has worked in the fields of Optoelectronic components, Optical hybrids, and PCB assembly, and holds degrees in Physics and Materials Science.

All attendees are welcome. Refreshments will be served.

For more information please contact Lon Chase (972) 952-3138

Signal Processing

"OpenMAX Advanced Multimedia Architectures"

Date: Thursday, September 7th, 2006, 11:00 AM

Place: UTD Engineering Building, TI Auditorium

Speaker: Dr. Leonardo Estevez, Texas Instruments

For Abstracts and directions to UTD, please see the chapter website at
<http://www.utdallas.edu/~kehtar/ieee-sp>

For Program information please contact Chapter Chair

Solid State Circuits

For Program information please contact Chapter Chair.



The Dallas Section of the **Institute of Electrical and Electronic Engineers (IEEE)** for the benefit of its members publishes **Direction** monthly from September through May. Articles and information for publication should be submitted to: Biron Pickens, Editor, 5015 Moss Point Rd., Dallas, TX 75232, Phone (972) 824-8284, Fax (972) 263-6710, Email: drbtimothy@sbcglobal.net. Special announcements must first be submitted to Bob Shapiro, Administrative Chairman, Phone (214) 448-4818, Email: rcshapiro@comcast.net, and will be published on a space-available basis. Deadline for submission of materials is no later than the first of the month prior to the month of publication.

Advertising: *Direction* is distributed to approximately 7,200 members in the Greater Dallas area. Camera-ready copy must be submitted by the first of the month prior to the month of publication to the Editor at the above address.

Invoicing and/or contractual agreements for advertising are administered by Biron Pickens, Editor, and Gerry Burnham, Administrative Chairman. All ad insertions must be cleared through Biron Pickens or Dr. Gerry Burnham before being submitted for publication. Advertising rates are as follows:

	Per Insertion	
Full Page	\$800.00	Quarter Page \$200.00
Half Page	\$400.00	Bus. Card \$120.00

BEST Robotics Coaches and Volunteers Needed

The 2006 BEST (Boosting Engineering, Science, and Technology) Robotics Competition is now organizing high school teams and is looking for volunteers to mentor and coach student teams in their quest to address this year's theme: "Laundry Quandary". Assistance is also needed for the numerous competitions. Events are planned for many local areas, a few of which are listed below. Contact any of the individuals below or visit the websites for more details.

- Dallas BEST - <http://www.dallas-best.org>
Contact: Jon Spangler, j-spangler@raytheon.com, 972-344-8057
- Collin County BEST - <http://www.cocobest.org>
Contact: Monica Nunez m-nunez1@raytheon.com, 972-952-2565
- Cowtown BEST (Fort Worth) - www.cowtownbest.org
Contact: Angela Wilbers, angela.n.wilbers@lmco.com
- DC BEST (Denton County) - <http://www.etec.unt.edu/dcbest/home.htm>
Contact: Leticia Anaya, Lanaya@unt.edu, 972-624-5144
- North Texas BEST (Sherman) - <http://www.ntbest.org>
Contact: Ted Mahler, t-mahler@ti.com
- Texas BEST (regional) - <http://www.texasbest.org/>
- BEST Robotics, Inc. - <http://www.bestinc.org>

Dallas, CoCo, and NT BEST 2006 dates:
 Kickoff - September 9
 Mall Day - October 14
 Game Day - October 21

Texas BEST Regional Game Day - December 2-3

