



Dallas Section

Direction

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From the Chair

by Kaijian Shi

It is a great honor to serve you as Chair of IEEE Dallas Section in 2006. Please join me in welcoming the 2006 IEEE Dallas Section officers which are listed to the left. Please offer your support to these officers.

We have more than 5000 members and 14 active society chapters in Dallas, making our section one of the large in IEEE. I'd like to thank all Section and Chapter officers and our volunteer members for their time and effort that made IEEE Dallas successful in 2005. Looking forward to 2006, we are determined to further improve IEEE's services to our members so you can obtain the most out of your memberships. In this regard, we have planned three programs.

Professional Skill Training Program

We shall provide short courses, workshops and on-line training at a low cost to our members. We hope to help those of you who have jobs in promoting your career and to provide those of you who are currently between jobs with a better resource pool for seeking jobs.

Membership Development Program

We shall develop a portal in Section website where selected information, programs and benefits most valuable to IEEE members are compiled for easy access. We shall continue organizing senior member upgrade drives to help you elevate your membership grade.

Service Improvement Program

We shall organize a special workshop to train IEEE Section and Chapter officers in leadership skills and IEEE activities so that they can be more proficient in IEEE services. We shall hold quarterly Section officer and Chapter chair meetings to enrich communications and collaborations between Section and chapters as well as among the chapters in order to improve our service quality.

We'd like to hear your suggestions to improve our services. Please feel free to contact me and other Section and Chapter officers.

Finally, I'd like to wish every one of you prosperity in 2006. Happy New Year!

DALLAS SECTION JANUARY 2006 MEETING

"Voice & Video over IP"

Date: Tuesday, January 10<sup>th</sup>, 2006  
Dinner: 6:30 PM – 7:00 P.M./ Program: 7:00 PM~ 8:00 P.M.

Place: Holiday Inn Select, Richardson  
(1655 N. Central Expressway (US 75), Richardson, TX 75080)  
(Near 75 & Campbell)

Speaker: Steven Goodrich, Senior Architect, Grandstream Networks

Voice-Over-IP technology has gained tremendous tractions in the market in recent years. Major service providers are racing to offer commercial VoIP services to consumers in a big way. IP-PBX deployments in enterprises have also surpassed traditional PBX system deployments for the first time in history. With high profile mega deals of sky-reaching valuation announcing almost every month, are internet bubbles of the late 90's happening again? Is VoIP a fad or major trend? Where is the market going? How is VoIP technology going to evolve in the future? Is Video-over-IP going to be the next big thing? Who will likely be the winners emerging from this major market and technology shift that will fundamentally change the way people communicate over broadband IP networks in the future? Are there opportunities for small companies?

There is no membership requirement to attend this meeting.

For additional information, please contact Will Lumpkins at (214) 543-0853 [xillia@ieee.org](mailto:xillia@ieee.org) Please RSVP for the Section Presentation.

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Program Chair Carl Zhou (972)995-2241

## Aerospace & Electronic Systems

### **"Optimizing Data Converters for High Frequency Operation"**

**Date:** Tuesday, January 24, 2006  
6:30: Meet & Greet; 7:00pm: program

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

All our society meetings are free of charge, and open to all interested in attending. Our programs start at 6:30 PM with a social, networking, snack and refreshment period, followed by the program at 7:00 PM. Please mark your calendars and be sure to attend our very informative programs.

**Speaker:** Paul F. Smith, Senior Field Applications Engineer, Analog Devices, Inc.

**Program Summary:** One of the consistently common trends in data converters applications is the need to use them with ever higher signal frequencies. This talk will give an overview of the problems encountered in dealing with high data rates and signals in the super-Nyquist bands. Topics will include traditional subjects such as phase noise, frequency response, and analog/digital interface issues, as well as more esoteric subjects like ping-ponged architectures and multi-converter synchronization. This talk will not only focus on real-world applications and solutions, but also provide the required theory as needed. It is intended to help the engineer get the maximum performance out of his data converter devices and may even allow some capabilities previously considered unobtainable.

**Paul Smith** is a Senior Field Applications Engineer for Analog Devices. He received his MS degree in Electrical Engineering from the University of Illinois in 1977, and currently holds 20 patents. Prior to joining Analog Devices he worked in the wireless infrastructure industry as a Senior Staff Engineer, researching wideband, multi-carrier software radio architectures and the applicability of high-speed, high-precision data converters. He has been a member of IEEE for over 30 years.

Visit the 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](mailto:Tim_D_Reichard@raytheon.com), Boyd Gallatin (903) 457-6689  
[Boyd.Gallatin@L-3Com.com](mailto:Boyd.Gallatin@L-3Com.com), or Mark Gober (903) 457 5122 [Mark.D.Gober@L-3Com.com](mailto:Mark.D.Gober@L-3Com.com)

## Antennas & Propagation

For additional information visit our website at <http://ieeedallas-aps.org> For comments contact Ken Tallent, (972) 952-3702, [ktallent@raytheon.com](mailto:ktallent@raytheon.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

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

## Computer

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

## Consultants Network

### **"Accounting and Tax Concerns for Consultants"**

**Date:** Monday, January 9, 2006,  
Social/Networking/Dinner 6:15 pm Program 7:00 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:** Matt Peck, CPA, Lane Gorman Trubitt, L.L.P.

**Program Summary:** Discussion of some record keeping ideas for the self employed and the use of spread sheets or accounting software to track income and expenses. Matt will discuss tracking business use of an automobile. He'll also discuss tax matters applicable to the self employed including: self employed health insurance deductions, Section 179 expensing, Self Employed Pension Plans, Office in Home expense and related topics. As well as some general tax matters that relate to individuals.  
Speaker Bio: Matt Peck joined the accounting firm of Lane Gorman Trubitt, L.L.P. in 1997. He is currently a senior manager in the tax department. Matt is a licensed Certified Public Accountant in the State of Texas and has a Masters of Science degree with a specialty in taxation from the University of North Texas.

**Matt** began his career in public accounting in 1994 and currently works with a variety of business clients including manufacturing, wholesale distribution, real estate, professional service, retail, and various other privately held businesses. Matt also works with high wealth individual clients. Matt is a native Texan, and currently resides in Coppell Texas with his wife Nichole and daughter Torie.

Contact information:  
[Maura Schreier-FLeming 972 380 0200](mailto:Maura.Schreier-FLeming@972.380.0200) or [info@bestatselling.com](mailto:info@bestatselling.com)

## Consumer Electronics

### **"Voice & Video over IP"**

**Date:** Tuesday, January 10th, 2006  
Lunch/Chapter business: 11:30 AM – 12:00 P.M.  
Program: 12:00 - 1:00 P.M.

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

**Speaker:** Steven Goodrich, Senior Architect, Grandstream Networks

**Program Summary:** Voice-Over-IP technology has gained tremendous tractions in the market in recent years. Major Service providers are racing to offer commercial VoIP services to consumers in a big way. IP-PBX deployments in enterprises have also surpassed traditional PBX system deployments for the first time in history. With high profile mega deals of sky-reaching valuation announcing almost every month, are internet bubbles of the late 90's happening again? Is VoIP a fad or major trend? Where is the market going? How is VoIP technology going to evolve in the future? Is Video-over-IP going to be the next big thing? Who will likely be the winners emerging from this major market and technology shift that will fundamentally change the way people communicate over broadband IP networks in the future? Are there opportunities for small companies?

**Steven Goodrich** is responsible for software and hardware architecture and integration for Grandstream Networks VoIP and Video terminal products. He brings over 15 years of embedded systems and DSP experience in wireless communications and acoustics, and has been with Grandstream for just over a year. Prior to joining Grandstream Networks, Steven held various technical lead and managerial positions at Samsung, SOMA Networks, NEC America and Active Noise and Vibration Technologies. He holds a BSEE degree from Penn State University and an MSEE degree from Arizona State University.

For additional information, please contact Will Lumpkins at (214) 567-3333 [xillia@ieee.org](mailto:xillia@ieee.org) or Sam Broyles at (214) 480-3232 [sam.broyles@ti.com](mailto:sam.broyles@ti.com). To download presentations, view upcoming calendar, etc. check out our web site at: <http://www.DallasCES.org>

## Electromagnetic Compatibility

### **"EMC & Safety: Harmonious Regulations?"**

**Date:** Tuesday, January 17<sup>th</sup>, 2006  
Refreshments 6:00 -- Program 7:00 P.M.  
RSVP to Bill Paschetag, [bpaschetag@IEEE.org](mailto:bpaschetag@IEEE.org)

**Place:** Intertek, ETL SEMKO (ITS),  
420 North Dorothy Drive, Richardson 75081

**Speaker:** Mr. Mike Cantwell, Senior Account Manager,  
Intertek, ETL SEMKO, Richardson, Texas

**Program Summary:** The presentation will discuss the regulatory requirements that force engineers to consider EMC and safety in their designs as well as the standards for EMC and safety that apply to the products. Typical design solutions will be presented for EMC and safety to highlight areas where the two technical requirements are harmonious and where they create technical challenges.

**Mike Cantwell** is a Sr. Account Manager with Intertek, ETS SEMKO in Richardson Texas, a graduate of the University of Lowell with a Bachelor's of Electrical Engineering, a senior member of the IEEE, a member of the EMC and Product Safety Societies, a NARTE Certified EMC Engineer and also a Licensed Professional Engineer in the states of Texas and Massachusetts. He also performs EMC laboratory assessments for NVLAP as a consultant to the US Department of Commerce.

**Mike Cantwell's** experience in systems interconnect, integration, and EMC/Immunity engineering has been demonstrated on many high performance products. This engineering involved the evaluation and measurement of processor and I/O designs at the board, backplane, enclosure, and overall system levels.

Mike has managed and developed EMC laboratories at Digital Equipment Corporation, RheinTexas (now NTS), and Flextronics (now TUV Rheinland).

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

**Electron Devices**

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

**Engineering Management**

For program information please contact Bob Bishop, 903.482.5320 or [r.bishop@ieee.org](mailto: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](mailto: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**

The MTT Chapter will not have a scheduled meeting for December, however MTT Chapter activity will resume with the January 2006 meeting scheduled for January 24<sup>th</sup>.

Program information for the Microwave Theory and Techniques Dallas Chapter can be obtained by e-mailing either Bob Eye ([reve@tatx.com](mailto:reve@tatx.com)) or Bob Coats ([rcoats@flash.net](mailto:rcoats@flash.net)).

**Power Engineering [Fort Worth, TX]**

For Program information please contact Julio Chavarria at [jchavar1@txued.com](mailto:jchavar1@txued.com), or telephone number 214-743-6681.

**Reliability**

**"Reliability in Biomedical Instrumentation "**

**Date:** Tuesday, January 17, 2006, 6:30 P.M.

**Place:** UTD Engineering and Computer Science Building, Room 3.503, Richardson, TX

**Speaker:** Dr. H. F. Tibbals, UT Southwestern Medical Center at Dallas

**Program Summary:** This presentation overviews work in progress and some completed projects for developing and testing biomedical instrumentation at the Bioinstrumentation Resource Center of UT Southwestern Medical Center at Dallas. Dr. Tibbals will discuss aspects of reliability for medical devices and biomedical research instrumentation, including FDA regulations, safety monitoring, and standards organizations involved in ensuring safety and reliability for medical devices.

Projects include electrophysiology systems for stimulation and response studies in animals and human subjects, electromagnetic stimulation for enhancement of bone growth and healing, and special waveforms for cardiac pacemaker stimulation. Also discussed will be a recently completed study done in collaboration with Dr. Austin Cunningham of UTD for reliability of gas sensor

devices as part of spaceflight qualification for use by NASA as life support monitors for the International Space Station and Spacelab.

**H. F. Tibbals** is Director, Bioinstrumentation Resource Center, University of Texas Southwestern Medical Center in Dallas, Texas. The Bioinstrumentation center provides engineering support to researchers and clinicians. As one of the basic research service organizations in the University, the Center provides design and analysis consulting in mechanical, electronic, and systems engineering. Its priorities are to provide a customer service oriented support organization with the capabilities to meet UT Southwestern's world class requirements.

**All attendees are welcome. Refreshments will be served.**  
For Program information please contact please contact Lon Chase (972) 952-3138.

**Signal Processing**

For more information on the Dallas Chapter and directions to UTD, please refer to <http://www.utdallas.edu/~kehtar/ieee-sp/ieee-sp-index.htm>

**Solid State Circuits**

For more information please contact society chair.

**Announcements**

THE UNIVERSITY OF TEXAS AT DALLAS  
**School of Management**

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**When:** February 13, 14, and 15, 8:30 a.m. – 5:00 p.m.

**Where:** UTD School of Management

**Cost:** \$1,595 including lunch and all materials

**Contact:** Judy Clothier, [judyc@utdallas.edu](mailto:judyc@utdallas.edu) or 972-883-2656

**Webpage:** <http://som.utdallas.edu/mpab>

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**Semiconductor Thermal Measurement, Modeling, and Management Symposium**

March 14-16, 2006  
Intercontinental Hotel  
Dallas, TX USA

SEMI-THERM is the premier forum for the exchange of information between the industrial and academic communities on topics related to semiconductor thermal measurement, modeling and management. Using a unique combination of technical paper presentations, tutorial(s), short course(s), exhibits, vendor workshops, topic tables and invited luncheon speakers, this symposium provides a continuous stream of information exchange over three conference days and two short course days. Attendees and exhibitors come from all over the world to participate in an informal atmosphere conducive to maximum exposure to leading technologies and the people behind the technologies.

SEMI-THERM is sponsored by:

- o Institute of Electrical and Electronics Engineers (IEEE)
- o IEEE Components, Packaging and Manufacturing Technology (CPMT) Society
- o National Institute of Standards and Technology (NIST)
- o American Society of Mechanical Engineering (ASME)

In its 22nd year, SEMI-THERM will include Topic Sessions, Invited Speakers, an Evening Tutorial, and a Short Course program to address key issues highlighted by attendees at the last symposium. Technical workshops, tutorials and vendor exhibits -- for which SEMI-THERM is well known -- are also a large part of the technical program.

Semi-Therm 22 Preliminary Program				
Tuesday March 15, 2005	Wednesday March 16, 2005		Thursday March 17, 2005	
High-Performance Air Cooling Solutions	Impingement, Spray Cooling, and Refrigeration Implementations		Packaging and Testing of Power LED Assemblies	
Thermal Interface Materials	Poster Papers		Thermoreflectance and Characterization	
Thermal Interface Material Testing and Characterization	Thermoelectric Implementation for High Flux Spreading	Thermal Materials Developments I	Thermo/Mechanical Challenges in Stacked Die Packages	Thermal Materials Developments II

Among the evening events will be a tour of the Texas Instruments DLP Show room along with an overview of the technology. For more details, including short courses, vendor exhibitions and tutorials, see the [SEMI-THERM](#) website.



Happy Holidays  
&  
A Safe and Prosperous New Year!



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](mailto:drbtimothy@sbcglobal.net). Special announcements must first be submitted to Gerry Burnham, Administrative Chairman, Phone (972) 883-6755, Email: [burnham@utdallas.edu](mailto:burnham@utdallas.edu), 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:

	<u>Per Insertion</u>	
<b>Full Page</b>	\$800.00	<b>Quarter Page</b> \$200.00
<b>Half Page</b>	\$400.00	<b>Bus. Card</b> \$120.00