



### Meetings In this Issue:

**March 7: Saturday**  
**PACE Workshop**

**March 10: Tuesday**  
**Consumer Electronics Society (CE) & Signal Processing Society**  
**Topic:** A Look Inside Digital/Cell-phone Cameras

**March 17: Tuesday**  
**Communications & Technology (CVT)**  
**Topic:** Start - up Convergence Technology Companies in Texas - Panel Discussion

**March 17: Tuesday**  
**Electromagnetic Compatibility (EMC)**  
**Topic:** TDB

**March 20: Friday**  
**Technology Management Council, GOLD and Life Members**  
**Topic:** Energy Alternatives for 2009, TMC, GOLD and Life members

**March 24: Tuesday**  
**Aerospace and Electronic Systems (AES)**  
**Topic:** Multi-Sensor Data Fusion and Applications

**March 24, Tuesday**  
**Microwave Theory and Techniques (MTT)**  
**Topic:** X-parameters – From theory into practice.

**March 25: Wednesday**  
**Laser & Electro-Optics (LEO)**  
**Topic:** Noiseless image amplification

**March 25: Wednesday**  
**Signal Processing (SP)**  
**Topic:** Recent Advances in Face Recognition

## IEEE Dallas Section: Direction

**March 2009**

**Volume 52, Number 7**

### From the Chair

By *Larry Zhang* l-zhang1@ti.com

March is the beginning of a warm season and it normally serves the same purpose for IEEE Dallas. The section has warmed up many activities for March and the coming months.

#### Award banquet:

This year we will continue our tradition of recognizing outstanding members from IEEE Dallas section who have served our community, have made significant contributions in their field, have been an outstanding volunteers in Dallas section or its chapters, or have been good presenters or speaks for our local chapter meetings.

#### Officer training and Senior Member Upgrades:

We will have another officer training meeting to provide a venue to exchange ideas among Chapter volunteers and leaders to improve our meeting activities and membership attendance. We will organize our first senior member upgrades in May 2009 to recognize and elevate our members who have contributed to their profession and the industry.

#### IEEE USA Energy and Green Initiative:

Four board members from IEEE Dallas section have attended the IEEE USA annual meeting in Salt Lake City. Dallas section has been known to have good activities with a large

member base. Recent economic down turn has resulted in some local lay offs and the section will try to coordinate some activities with local industry to provide free trainings on tools and future hot areas in energy and power, or shift to jobs in the green initiative.

#### Working Together with MTBC and the IEEE Fort Worth Section:

The Metroplex Technology Business Council (MTBC) is the largest technology trade association in Texas. It has some very common goals and purposes as IEEE Dallas Section. We will try to jointly sponsor some activities in Metro Dallas in 2009.

Fort Worth section will host the 2010 Region 5 conference and we will support them as a technical cosponsor. Also we will start to exchange ideas on joint activities between the two sections.

We need to be constantly reminded of our goals for 2009: increase the IEEE membership and our Chapter activities. With effort and vision from all of us, these are modest and achievable goals. I appreciate the effort from all the section and chapter volunteer leaders and welcome more members to participate in our activities.



### Joint meeting: IEEE Dallas Section & IEEE Consultants Network

**Topic:** Tap Into the Talent of Others to Advance Your Business Success

**Speaker:** Maura Schreier-Fleming, [Best@Selling](mailto:Best@Selling)

**Date:** Monday, March 9, 2009

**Time:** Social/Networking/Dinner 6:15 pm Program 6:45 pm.

**Location:** Holiday Inn Select, 1655 North Central Expressway, Richardson, TX (south of Campbell Road, west side of Central)

**Cover:** \$5 for IEEE Members, \$15 for non-IEEE Members/Guests (includes light supper buffet) **IEEE members who RSVP may bring a guest for a guest charge of only \$5 if they RSVP by the Friday before the meeting.**

**RSVP:** [http://ewh.ieee.org/r5/dallas/registration/mar\\_meeting/](http://ewh.ieee.org/r5/dallas/registration/mar_meeting/)



### Executive Committee

**Chair:** Dr. Larry Zhang  
(214) 567-3170 [l-zhang1@ti.com](mailto:l-zhang1@ti.com)

**Vice Chair**  
Dr. Dinesh Rajan (214) 768-1259 [rajand@engr.smu.edu](mailto:rajand@engr.smu.edu)

**Administrative Chair**  
Will Lumpkins [xillia@ieee.org](mailto:xillia@ieee.org)

**Treasurer**  
Mark Swenholt (972) 437-5001 [mshwenholt@scenpro.com](mailto:mshwenholt@scenpro.com)

**Activities Chair**

**Secretary**  
Steve Simmons

**Past Chair**  
Robert Shapiro (214) 448-4818 [rcshapiro@tx.rr.com](mailto:rcshapiro@tx.rr.com)

### Committee Chairpersons

**Awards Chair**  
Sue Hui [suehui2000@yahoo.com](mailto:suehui2000@yahoo.com)

**Membership Chair**

**Student Activities Chair**

**PACE Chair**  
Maura Schreier-Fleming (972) 380-0200 [maura@bestatselling.com](mailto:maura@bestatselling.com)

**Industrial Relationship Officer**

**Graduates of the Last Decade (GOLD) Chair**  
Yan Wu Yan Wu [yywu0015@yahoo.com](mailto:yywu0015@yahoo.com)

**Government Relations**

**Direction Editor and Webmaster**  
Pritesh Jain (972) 655-4192 [pritesh.ajain@yahoo.com](mailto:pritesh.ajain@yahoo.com)

**Life Member Affiliate Officer**

**WIE Chair**  
Jenn Wang [jianbaiw@ti.com](mailto:jianbaiw@ti.com)

**University Relations Chair**  
Cyrus Cantrell [cy@cdcantrell.com](mailto:cy@cdcantrell.com)

## Dallas Section

### Chapter Meetings/Events

#### PACE Workshop March 7, 2009, at UTD.

PACE Workshop: Are You Ready for 2009 Life and Job Changes? Experience exercises in class to pinpoint issues you deeply care about as an individual. Determine your choices, unique to you as an individual.

##### You will learn:

- Proven Techniques to Find Issues You Care About.
- Your Unique Combination of Do Best/Most Enjoy Skills.
- The Power of Written Goals.

##### Strategies of:

- Dr. Randy Pausch, Really Achieving Your Childhood Dreams.
- Richard N. Bolles, What Color Is Your Parachute?
- John C. Crystal and Richard N. Bolles, Where Do I Go From Here With My Life?
- Peter Elbow, Writing Without Teachers.

**Speaker:** Mr. Robert B. Bishop, Jr. PE

**Date:** Saturday, March 7, 2009.

**Time:** 8 AM to 12 Noon.

**Location:** UTD, room to be determined.

**Cost:** \$5. Bring a guest for free, maybe your Spouse?  
No Cost: Spouses, Senior Members and Students.

**RSVP:** Bob Bishop r.bishop@ieee.org 903 815 8788 cell

#### Consultants Network (CN)

**Topic:** Tap Into the Talent of Others to Advance Your Business Success

**Speaker:** Maura Schreier-Fleming, [Best@Selling](#)

**Date:** Monday, March 9, 2009

**Time:** Social/Networking/Dinner 6:15 pm Program 6:45 pm.

**Location:** Holiday Inn Select, 1655 North Central Expressway, Richardson, TX (south of Campbell Road, west side of Central)

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

**RSVP:** IEEE members who RSVP may bring a guest for a guest charge of only \$5 if they [RSVP](#) by the Friday before the meeting.

**Description:** Would you like to know what other successful managers learned to be successful *before* your next management assignment? What would you need to know if you're new to technical marketing or sales? How about getting some pointers for your next job search? You can learn from others not only what to do, but also what to avoid so you can be successful in your next job.

**Speaker Bio:** Maura Schreier-Fleming is president of [Best@Selling](#) ([www.BestatSelling.com](#).) She works with business and sales professionals who want to sell more and be more productive at work. She is the author of Real-World Selling for Out-of-this-World Results, Sales Quotes and writes several business columns including "Customer Connections" for the Dallas, Austin and Houston Business Journals. She writes the Real Deal: Success for Women in Business blog for Allbusiness.com. She's

been quoted in the New York Times, Selling Power and Entrepreneur. Her clients include UPS, Fujitsu, the Houston Texans, Fannie Mae, Conoco and Chevron. She was Mobil Oil's first female lubrication engineer in the U.S. Maura has her M.S. from Georgia Institute of Technology and a B.S. from Cornell University.

#### Consumer Electronics Society (CE) & Signal Processing Society (SP) present

**Topic:** A Look Inside Digital/Cell-phone Cameras

**Speaker:** Professor Nasser Kehtarnavaz  
Dept. of Elec. Eng., University of Texas at Dallas

**Date:** Tuesday, March 10, 2009

**Time:** 11:00am – 12:00pm presentation  
12:00pm – 01:00pm lunch and networking

**Location:** ECSS 2.102 (TI Auditorium)

Drinks and Pizza Provided

##### Abstract:

Digital images are everywhere and many of us deal with them on a daily basis. Have you ever wondered how digital/cell-phone cameras generate digital images or what are the features you often see on these cameras? This talk is put together to provide a general overview or introduction to various image processing functions that occur inside digital/cell-phone cameras when taking pictures. The material presented is intended to give attendees an insight into the features of digital cameras for using or purchasing them.

##### Speakers Bio:

Nasser Kehtarnavaz is Professor of Electrical Engineering at the University of Texas at Dallas. His current research areas include real-time signal and image processing, digital camera image pipelines, and biomedical image analysis. He has authored or co-authored 7 books and more than 190 papers in these areas. He is a Professional Engineer, a Fellow of SPIE, a Senior Member of IEEE, Coeditor-in-Chief of Journal of Real-Time Image Processing, and Chair of the Dallas Chapter of the IEEE Signal Processing Society.

**Parking:** Visitors need to enter the UTD Campus (for Campus Map, follow this link: <http://www.utdallas.edu/maps/>) using University Parkway (the main entrance from Campbell Road) and obtain a free visitor's parking permit from the Visitor Center (see Campus Map). This allows parking in any Visitor's parking spot or Green parking area. Best to park in Lot J (behind the Activity Center - AB on Campus Map), Lot I (Visitor Parking), or Lot H for visiting the ECS Buildings North ECSN and South ECSS. For room location, click on ECSN or ECSS on Campus Map.

#### Communications & Technology (CVT)

**Topic:** Start - up Convergence Technology Companies in Texas - Panel Discussion

**Date:** March 17<sup>th</sup>, 2009

**Time:** 11:30a start with technical program from 12noon - 1pm

**Location:** Holiday Inn Select, Richardson TX (West of I-75/one block south of Campbell Road)

**Cover:** IEEE Members \$5.00 / Non-members \$10.00 (includes lunch)

**Speaker:** Speakers from 3 different companies: 1) Varaha Systems 2) SNR Labs 3) Bynari Inc.

## Dallas Section

### Chapter Meetings/Events

**RSVP:** N/A

**Program Description:** From uMobility and messaging applications, smart software and wireless device integration, this region is seeing the emergence of start-up technology-based companies willing to take a risk to introduce new solutions and products into the market.

**Speakers' Biography:**

1. Prasad Govindarajan is the CTO from Varaha Systems
2. Chaitali Sengupta is the CTO from SNR Labs and
3. Hyum Kim is the CEO from Bynari Inc.

**Note:** The State of Texas Emerging Technology Fund provides a platform for such companies.

**Website URL:** [www.cvt-dallas/org/](http://www.cvt-dallas/org/)

### Electromagnetic Compatibility (EMC)

**Topic:** TDB

**Speaker:** Tom Tidwell - Telecom Direct Specialist – Nemko

**Date:** Tuesday, March 17, 2009

**Time:** Refreshments 6:00 PM Program 7:00 PM

**Location:** NEMKO – Lewisville  
802 N Kealy St, Lewisville, TX 75057

**RSVP:** RSVP to Bob Queen, [BQDude1@tx.rr.com](mailto:BQDude1@tx.rr.com)

**Speaker's Bio:** Tom is a NARTE certified EMC Laboratory Engineer with 21 years of direct experience in Wireless, Telecommunications, EMC, and world-wide market access. His experience includes numerous wired and wireless protocols and technologies. Tom is trained and experienced as a Certification Assessment Body review engineer for the US, Canada, and the EU. Tom holds a technical degree in Electrical Engineering from Valdosta Area Technical College, and is currently completing his Masters in Electrical Engineering and Engineering Management at Kennedy Western University. Program

For additional program information, refer to the Dallas EMC Chapter Website, <http://www.DallasEMC.org>

### Technology Management Council, GOLD and Life Members

**Topic:** Energy Alternatives for 2009, TMC, GOLD and Life members

**Date:** Friday, March 20, 2009

**Time:** 11:15 AM to 1:00 PM

**Location:** Pasand Indian Cuisine (Southeast Corner of Coit and Campbell, 2 ½ Miles West of Highway 75.)  
1377 West Campbell Rd.  
Richardson Tx 75080  
Tele. #972 644-444

**RSVP:** RSVP by Wed, March 18, to Bob Bishop.  
[r.bishop@ieee.org](mailto:r.bishop@ieee.org) 903 815 8788 cell

Spouses are Welcome.

### Aerospace and Electronic Systems (AES)

**Topic:** Multi-Sensor Data Fusion and Applications

**Speaker:** Dr. Pramod K. Varshney, IEEE Distinguished Lecturer, Syracuse University

**Date:** March 24, 2009

**Time:** Light Buffet 6:30 PM / Program 7:00 PM

**Location:** Holiday Inn Select - Richardson,  
1655 N. Central Expressway, on the south-bound service road of Central Expressway (US-75), south of Campbell Road, and north of Collins Road.

**Cover:** \$5 for IEEE members / \$5 for non-IEEE members

**Program Summary:**

Multi-Sensor data fusion refers to the acquisition, processing and synergistic combination of information gathered by various knowledge sources and sensors to provide a better understanding of a phenomenon. It is a fascinating and rapidly evolving field that has generated a lot of excitement in the research and development community. These concepts are being applied to a wide variety of fields such as military command and control, robotics, image processing, air traffic control, medical diagnostics, pattern recognition, and environmental monitoring. A number of sensor networks are also being implemented where data fusion is a key component. This talk will present a brief overview of the field and will illustrate its potential by means of some examples.

**Speakers' Biography:**

**Dr. Pramod K. Varshney** received the B.S. degree in electrical engineering and computer science (with highest honors), and the M.S. and Ph.D. degrees in electrical engineering from the University of Illinois at Urbana-Champaign in 1972, 1974, and 1976 respectively. Since 1976 he has been with Syracuse University, Syracuse, NY where he is currently a Distinguished Professor of Electrical Engineering and Computer Science and the Research Director of the New York State Center for Advanced Technology in Computer Applications and Software Engineering. His current research interests are in distributed sensor networks and data fusion, detection and estimation theory, wireless communications, image processing, and remote sensing. He is an IEEE Fellow and has received numerous awards. He serves as a distinguished lecturer for the AES society of the IEEE. He was the President of International Society of Information Fusion during 2001.

**Website URL:** <http://ewh.ieee.org/r5/dallas/aes>

### Microwave Theory and Techniques (MTT)

**Topic:** X-parameters – From theory into practice.

**Speaker:** Graham J. Riley, David E. Root PhD.

**Date:** Tuesday, March 24, 2009

**Time:** Lunch 11:30 AM / Program 12:00 noon

**Location:** Shuiwah Chinese Buffet  
400 N Greenville Ave #11  
Richardson, TX 75081  
(972) 907-8868

**Charge:** Mandatory \$5 (\$10 for non-IEEE members). Includes admission and buffet. No charge for Student and Life Members.

## Dallas Section

### Chapter Meetings/Events

PLEASE BRING YOUR IEEE CARD TO RECEIVE THE REDUCED OR FREE PRICING.

**RSVP:** Please RSVP to [csanabria@tqs.com](mailto:csanabria@tqs.com) by noon, March 20th, for restaurant headcount.

#### Abstract:

During 2008 X-parameters (1) made their way from theoretical possibility into the practical world of measurement and modeling. The release of Agilent's NVNA and additions to Agilent's ADS simulation environment made it possible to characterize amplifiers with X-parameters and import these measurements into a PHD model and use them for simulation. In December 2008 at the European Microwave show a Load Pull based X-parameter measurement setup was shown by Maury and Agilent which opens the door for device level modeling. This overview presentation will look at X-parameters from three main perspectives:

- Why X-parameters? A brief retrospective on non-linear behavioral modeling and the reason for the development of the X-parameter measurements and the PHD model.
- Using X-parameters today. A look at test equipment and methods that can measure X-parameters and at how X-parameters can be used for modeling in a simulation environment.
- X-parameters – what comes next? A few thoughts on the current state of play and how things might develop going forward.
- Non-authoritative general reference
- <http://en.wikipedia.org/wiki/X-parameters>

#### Speaker Bio:

Graham Riley has over 20 years experience in the use and application of Analog, RF and Microwave EDA software. He began his career as a designer and program manager at GEC-Marconi Research Centre and Cosor Electronics (Raytheon). In 1993, Graham joined EEsof Inc. and after the acquisition of EEsof Inc. by the Hewlett Packard Company, transferred from the UK to Richardson, Texas as part of the HP-EEsof team. In 2000, he joined the sales management team for the Agilent EEsof program and in 2001 became the Business Development Manager for their Modeling Systems and Software business in the US. In 2002 Graham joined Accent Optical Technologies Inc. as Director of Marketing for their DiVA product line. He returned to Agilent in late 2003 as an EEsof Application Specialist in the Texas Area. Graham received his BSc (Hons.) in Communication Engineering from Plymouth University and his MSc in Microwaves and Modern Optics from University College London.

Dr. David E. Root received B.S. degrees in physics and mathematics, and, in 1986, the Ph.D. degree in physics, all from MIT. He is presently Principal Research Scientist and Modeling Architect at Agilent Technologies' High Frequency Technology Center in Santa Rosa, CA. His current responsibilities include nonlinear behavioral and device modeling, large-signal simulation, and nonlinear measurements for new technical capabilities and business opportunities for Agilent. David was elected IEEE Fellow in 2002. He was 2006-2008 IEEE MTT-S "Distinguished Microwave Lecturer." David received the 2007 IEEE ARFTG Technology Award "for contributions to nonlinear RF and microwave device measurement and behavioral modeling." In 2008, David and collaborators received Agilent Technologies' Barnholt Award for the company's top innovation out of 1500 entries across all businesses: the Nonlinear Vector Network Analyzer and X-parameters.

More information at the MTT website:  
<http://ewh.ieee.org/r5/dallas/mtt/>

### Laser & Electro-Optics (LEO)

**Topic:** Noiseless image amplification

**Date:** Wednesday, March 25th, 2009

**Time:** Refreshment 6:00 PM, Program 6:30 PM

**Location:** Photodigm Inc., 1155 E. Collins Blvd. #200, Richardson, TX 75083-0938. Map available at <http://lyle.smu.edu/leos/>

**Cover:** Free

**Speaker:** Dr. Nikolai Stelmakh, Department of Electrical Engineering, University of Texas at Arlington, Arlington, TX 76019

#### Abstract:

The enhancement of resolution and sensitivity of optical remote imaging sensors such as LIDARs is important in military, environmental, and medical applications, and is the goal of DARPA Quantum Sensors Program. In this talk, we will discuss our work under this program focusing on using phase-sensitive parametric amplifiers to overcome the image degradations due to finite receiver's aperture and non-ideal detection.

Phase-sensitive amplifiers are unique devices capable of noiseless amplification of optical signals. They have gained popularity recently in telecom community for amplifying single-spatial-mode signals in optical fibers. We have extended this concept to simultaneous amplification of a multitude of spatial modes, i.e. images, in nonlinear crystals. The pump beam size and the spatial bandwidth of the crystal determine the k-vector selection rules and the effective number of the amplified modes (pixels). The mode manipulation techniques developed earlier in our group for semiconductor laser mode combining have proven to be useful in optimizing the pixel count. In this talk, we will discuss the design and optimization of the parametric image amplifiers, and their expected impact on the LIDAR performance.

#### Speakers' Biography:

Dr. Stelmakh started his research career at the Ioffe Institute (St. Petersburg, Russia) in the group of Zh. I. Alferov (Nobel Prize 2000). From 1990 to 2000 he worked at the CNRS (France) focusing on pulsed injection-locking, chirped laser diode mode-locking, and high-energy pulse generation from laser diode arrays. From 2000 to 2003 he was the vice-president of Applied WDM, a Texas startup company that had developed ultra-low-loss AWG planar optical circuits. Since 2003 he has been with the University of Texas at Arlington, where he is working on interfacing the laser diodes with silica-on-silicon planar optics, nonlinear optics and nanophotonics. His recently proposed concept of direct reshaping of broad-area laser radiation by phase manipulation techniques has found an interesting application in parametric noiseless amplification of images.

**Website URL:** <http://lyle.smu.edu/leos/>

**Contact Information:** Reddy Urimindi (972) 523-3029 [reddyu@ieee.org](mailto:reddyu@ieee.org) or Joy Chuang (214) 768-1464 [hchuang@lyle.smu.edu](mailto:hchuang@lyle.smu.edu)

### Signal Processing (SP)

**Topic:** Recent Advances in Face Recognition

**Speaker:** Professor Rama Chellappa

**Date:** Wed March 25

**Time:** 11am-12pm

**Location:** UTD, ECSS Building, TI Auditorium

**Cover:** No cover fee

#### RSVP:

**Abstract/Program Summary/Description:** Over the last twenty years, much progress has been made in still image-based recognition, accompanied by meticulous performance evaluation of many state-of-the-art algorithms. It is widely believed that the face recognition problem has been

## Dallas Section

### Chapter Meetings/Events

solved for frontal images acquired in controlled illumination conditions. However, when variations due to pose, illumination and aging are present, the performance of many existing algorithms is not good enough for deployment. In this talk, I will discuss two new algorithms for pose and illumination invariant face recognition using still images. These algorithms are derived using generalized photometric stereo and albedo estimation using a non-stationary Wiener filter. I will then discuss model-based approaches for face recognition across aging in children and adults. Finally, I will discuss the video-based face recognition problem and present two algorithms, one based on the particle filter and the other based on statistical inference on manifolds. The talk will conclude with suggestions for future research directions in this area.

#### Speakers' Biography:

Prof. Chellappa received the M.S.E.E. and Ph.D. Degrees in Electrical Engineering from Purdue University, West Lafayette, IN, in 1978 and 1981 respectively. Since 1991, he has been a Professor of Electrical and Computer Engineering and an Affiliate Professor of Computer Science at University of Maryland (UMD), College Park. He is also affiliated with the Center for Automation Research (Director) and the Institute for Advanced Computer Studies (Permanent member). Recently, he was named a Minta Martin Professor of Engineering. Over the past 26 years, he has published numerous book chapters, peer-reviewed journal and conference papers. He has co-authored and edited many books in visual surveillance, biometrics, MRFs and image processing. His current research interests are in face and gait analysis, 3D modeling from video, surveillance and monitor-

ing, hyper spectral processing, and computer vision. Prof. Chellappa served as the associate editor of four IEEE Transactions and as the Editor-in-Chief of IEEE Transactions on Pattern Analysis and Machine Intelligence. He served as a member of the IEEE Signal Processing Society's Board of Governors and as its Vice President of Awards and Membership. He has also served as a General and Technical Program Chair/Co-Chair for several IEEE international, national conferences and workshops. Prof. Chellappa has received several awards, including an NSF Presidential Young Investigator Award, four IBM Faculty Development Awards, an Excellence in Teaching Award and the Technical Achievement Awards from the IEEE Signal Processing Society and the IEEE Computer Society. He also received the Outstanding Innovator Award from the Office of Technology Commercialization, the A.J. Clark School Engineering Faculty Outstanding Research Award, the Distinguished Faculty Research Fellow Award and the Distinguished Scholar-Teacher Award. He co-authored two papers that received Best Paper Awards from the International Conference on Pattern Recognition. He is a Golden Core Member of IEEE Computer Society and also received the Meritorious Service Awards from the IEEE Computer Society and the IEEE Signal Processing Society. He is a Fellow of IEEE, the International Association of Pattern Recognition and the Optical Society of America.

Website URL: <http://www.utdallas.edu/~kehtar/ieee-sp>

# Dallas Section

## Chapter Information

### Aerospace and Electronic Systems (AES)

Website: <http://ewh.ieee.org/r5/dallas/aes/index.html>

<b>Chapter Chair:</b>	Tim D. Reichard	(972) 344-7512
	<a href="mailto:Tim_D_Reichard@raytheon.com">Tim_D_Reichard@raytheon.com</a>	
<b>Program Chair:</b>	Chris Pilcher	(972) 952-3183
	<a href="mailto:cpilcher@raytheon.com">cpilcher@raytheon.com</a>	
<b>Secretary / Treasurer:</b>	Mark Gober	(972) 205-4752
	<a href="mailto:Mark_D_Gober@raytheon.com">Mark_D_Gober@raytheon.com</a>	

### Antennas and Propagation (AP)

Website: <http://www.ieeedallas-aps.org/>

<b>Chair:</b>	Mr Narindra Nath Lakhanpal	(972) 387-9243
	<a href="mailto:narindra_lakhanpal@hotmail.com">narindra_lakhanpal@hotmail.com</a>	

### Circuits and Systems (CAS)

Website: <http://ewh.ieee.org/soc/cas/dallas/>

<b>General chair:</b>	Sudhind Dhamankar	(214) 567-8914
	<a href="mailto:sudhind@ti.com">sudhind@ti.com</a>	
<b>Vice chair:</b>	Mak Kulkarni	(214) 567 5144
	<a href="mailto:mak@ti.com">mak@ti.com</a>	
<b>Publicity Chair/Secretary:</b>	Arjun Rajagopal	(214) 480-2752
	<a href="mailto:arjun@ti.com">arjun@ti.com</a>	
<b>Program Chair:</b>	Bhaskar Bannerjee	(972) 883-6459
	<a href="mailto:bhaskar.banerjee@utdallas.edu">bhaskar.banerjee@utdallas.edu</a>	
<b>Treasurer &amp; Meetings Chair:</b>	Saqib Malik	(214) 567-2373
	<a href="mailto:sqmalik@ieee.org">sqmalik@ieee.org</a>	
<b>Member Chair:</b>	Tuna Tarim	(214) 567-2318
	<a href="mailto:tuna@ti.com">tuna@ti.com</a>	
<b>Member Chair:</b>	Ping Gui	(214) 768-1733
	<a href="mailto:pgui@enr.smu.edu">pgui@enr.smu.edu</a>	
<b>Past Chair:</b>	Liming Xiu	(214) 480-4930
	<a href="mailto:limingxiu@ti.com">limingxiu@ti.com</a>	

### Communications & Technology (CVT)

Website: <http://www.cvt-dallas.org/>

<b>Chair</b>	Steve Maxwell	(972) 250-1289
	<a href="mailto:smaxwell@wt.net">smaxwell@wt.net</a>	

### Computational Intelligence (CI)

<b>Chair:</b>	Dingding Chen	(972) 418-3472
	<a href="mailto:Dingding.Chen@Halliburton.com">Dingding.Chen@Halliburton.com</a>	
<b>Administrative Chair:</b>	William A. Dembski	(817) 923-1921 x4435
	<a href="mailto:wdembski@designinference.com">wdembski@designinference.com</a>	
<b>Organization Chair:</b>	Orlando De Jesús	(972) 418-3078
	<a href="mailto:Orlando.DeJesus@Halliburton.com">Orlando.DeJesus@Halliburton.com</a>	

### Computer (C)

Website: <http://chapters.computer.org/dallas/>

<b>Chair:</b>	Jim Bondi	
	<a href="mailto:j.bondi@ieee.org">j.bondi@ieee.org</a>	
<b>Vice Chair:</b>	Don Shaver	
	<a href="mailto:shaver@ieee.org">shaver@ieee.org</a>	
<b>Treasurer:</b>	Steve Chenoweth	
	<a href="mailto:schenoweth@ieee.org">schenoweth@ieee.org</a>	
<b>Secretary:</b>	Bill Pervin	
	<a href="mailto:Pervin@utdallas.edu">Pervin@utdallas.edu</a>	
<b>Program Chair:</b>	Jim Bondi	
<b>Web Chair:</b>	Jim Bondi	

### Consultants Network (CN)

Website: <http://www.ieeedallascn.org/>

<b>Chair:</b>	Neil Kaden	(972) 569-0954
	<a href="mailto:nkaden@sbcglobal.net">nkaden@sbcglobal.net</a>	
<b>Programming:</b>	Maura Schreier-Fleming	(972) 380-0200
	<a href="mailto:maurasf@sbcglobal.net">maurasf@sbcglobal.net</a>	
<b>Treasurer:</b>	David Stephens	(972) 365-4681

[dstephens@inventgineering.com](mailto:dstephens@inventgineering.com)

<b>Secretary:</b>	Lawrence Spritzer	(972) 740-0134
	<a href="mailto:lspritzer@earthlink.net">lspritzer@earthlink.net</a>	
<b>Vice Chair:</b>	Mike Hallett	(972) 394-0714
	<a href="mailto:mikehallett2@netscape.net">mikehallett2@netscape.net</a>	

### Consumer Electronics Society (CES)

Website: <http://www.dallasces.org/>

<b>Chair:</b>	Sue Hui	(214) 567-5017
	<a href="mailto:suehui2000@yahoo.com">suehui2000@yahoo.com</a>	
<b>Vice Chair:</b>	Mike Hannah	(214) 480-1087
	<a href="mailto:m-hannah@ti.com">m-hannah@ti.com</a>	
<b>Treasurer:</b>	Anuradha Sundararajan	(214) 293 2537
	<a href="mailto:sanuradha@ti.com">sanuradha@ti.com</a>	
<b>Secretary:</b>	Adolfo Echeverria	(972) 742-7579
	<a href="mailto:adolfo@ti.com">adolfo@ti.com</a>	

### Education (E)

<b>Past Chair</b>	William M. Riley	(214) 478-4065
	<a href="mailto:bill@billrileys.com">bill@billrileys.com</a>	

If you are interested in volunteering/becoming an officer for this society, please contact the past chair, William Riley.

### Electromagnetic Compatibility (EMC)

Website: <http://www.dallasemc.org/>

<b>Chair</b>	Joe Stanfield	(972) 523-0017
	<a href="mailto:Joe.stanfield@ieee.org">Joe.stanfield@ieee.org</a>	
<b>Vice Chair</b>	Bob Queen	(972) 672-9268
	<a href="mailto:bqdude1@yahoo.com">bqdude1@yahoo.com</a>	
<b>Vice Chair-Communications</b>	Mike Hollingsworth	(972) 705-1366
	<a href="mailto:Mike.hollingsworth@sbcglobal.net">Mike.hollingsworth@sbcglobal.net</a>	
<b>Vice Chair - Education</b>	Ron Moser	(972) 278-3133
	<a href="mailto:caronmo@verizon.net">caronmo@verizon.net</a>	

### Electron Devices (ED)

<b>Chair</b>	Zeynep Celik-Butler	(817) 272-1309
	<a href="mailto:zbutler@uta.edu">zbutler@uta.edu</a>	

### Engineering in Medicine and Biology (EMBS)

<b>Chair:</b>	Shekar Rao	(214) 480-1756
	<a href="mailto:shekar@ti.com">shekar@ti.com</a>	
<b>Vice Chair:</b>	Issa Panahi	(972) 883-2784
	<a href="mailto:issapanahi@ieee.org">issapanahi@ieee.org</a>	
<b>Secretary &amp; Workshops/Conference:</b>	Dinesh Bhatia, PhD	(972) 883-2386
	<a href="mailto:dinesh@utdallas.edu">dinesh@utdallas.edu</a>	
<b>Treasurer:</b>	Mark Swenholt	
	<a href="mailto:swenholt@scenpro.com">swenholt@scenpro.com</a>	
<b>Program Committee Chair:</b>	Roy Chaney	(972) 883-2887
	<a href="mailto:chaneyr@utdallas.edu">chaneyr@utdallas.edu</a>	
<b>Communications Committee Chair:</b>	Richard Fincher	(214) 616-2844
	<a href="mailto:richard.fincher@mac.com">richard.fincher@mac.com</a>	
<b>Corporate and Professional Relations Chair:</b>	Dennis Goldsberry	(972) 690-1922
	<a href="mailto:d.goldsberry@ieee.org">d.goldsberry@ieee.org</a>	
<b>Academic Relations Committee Chair:</b>	Khosrow Behbehani	(817) 272-2249
	<a href="mailto:kb@uta.edu">kb@uta.edu</a>	
<b>Technical and Educational Outreach Chair:</b>	Harry Tibbals	(214) 648-3316
	<a href="mailto:harry.tibbals@utsouthwestern.edu">harry.tibbals@utsouthwestern.edu</a>	
<b>Membership Development Committee Chair:</b>	Bill Diong, PhD	(817) 257-6317
	<a href="mailto:b.diong@tcu.edu">b.diong@tcu.edu</a>	
<b>Executive Committee Member:</b>	Elisabeth Marley	(214) 768-1891
	<a href="mailto:emk@ieee.org">emk@ieee.org</a>	

### Engineering Management (EM)

<b>Chair:</b>	Bob Bishop	(903) 482-5320
	<a href="mailto:r.bishop@ieee.org">r.bishop@ieee.org</a>	

### Laser & Electro-Optics (LEO)

## Dallas Section Chapter Information

Website: <http://enr.smu.edu/leos/>

**Chair:** Reddy N. Urimindi (972) 523-3029  
 reddyu@ieee.org

**Vice Chair:** Joy H. Chuang (214) 768-1464  
 chuang@lyle.smu.edu

**Secretary:** Arlene Masabo (214) 768-3405  
 amasabo@mail.smu.edu

**Treasurer:** Linglin Jiang (972) 235-7584 x2229  
 lljiang@photodigm.com

### Microwave Theory and Techniques (MTT)

Website: <http://ewh.ieee.org/r5/dallas/mtt/>

**Chair:** Qi Zhang (972) 208-2970  
 qzhang4504@yahoo.com

**Vice Chair:** Jim Carroll (214) 228-3784  
 jim.carroll@awrcorp.com

**Program Chair:** Hank Largey (214) 205-1342  
 largey@ti.com

**Treasurer:** Claudio Montiel (972) 979-9908  
 claudio\_m\_montiel@yahoo.com

**Secretary:** Chris Sanabria (972) 994-5662  
 csanabria@tqs.com

**Webmaster:** Wei-men Peng (214) 666-7610  
 weimin.peng@iongeo.com

**Student Activities Chair:** Bryan Skarke (713) 408-8346  
 skarke@gmail.com

**Membership:** Larry Zhang (214) 567-3170  
 l-zhang@ti.com

### Power Engineering (PE)

Website: <http://ewh.ieee.org/soc/pes/dallas/>

**Chair:** William (Bill) Sako (214) 288-5315  
 wdsako@verizon.com

**Secretary/Treasurer :** George Luke  
 gluke@cpyi.com

**Publicity Chair:** Jessica Vance (214) 532-8403  
 jvance@blumeng.com

**Webmaster:** Stacy Carr (972) 818-0264  
 scarr@dwccc.com

### Power Electronics (PELS)

Website: <http://www.Dallaspeles.org>

**Chair:** Don Marabell (469) 330-9100 x230  
 dmarabell@ieee.org

**Vice Chair:** Aaron Xu

**Treasurer:** Zao Yang

**Secretary:** Brent Markham

### Reliability (RL):

**Chair:** Faye Bilger (972)523-7679

**fbilger@raytheon.com**

**Vice Chair:** Thomas Yohe (972) 477-2304  
 yohe@telmarnt.com

**Secretary:** Chance Kelly (972) 952-4185  
 Chance\_Kelly@raytheon.com

**Technical Program Chair:** Milton Tam (972) 344-5230  
 m-tam2@raytheon.com

**Treasurer:** Lon Chase (972) 344-3138  
 lon.e.chase@raytheon.com; l.chase@ieee.org

**Membership Chair:** Ron Knerr (972) 995-1527  
 r.d.knerr@ieee.org

### Signal Processing (SP):

Website: <http://www.utdallas.edu/~kehtar/ieee-sp>

**Chair:** Nasser Kehtarnavaz (972) 883-6838  
 kehtar@utdallas.edu

**Vice Chair:** Issa Panahi (972) 883-2784  
 issa.panahi@utdallas.edu

**Treasurer:** Xinrong Li (940) 891-6875  
 xinrong@unt.edu

**Secretary:** William Pervin (972) 883-2719  
 pervin@utdallas.edu

### Solid-State Circuit (SSC):

**Chair:** Gonggui Xu (214) 680-6688  
 gongguixu@yahoo.com

**Vice Chair:** Tan Du  
 t0199939@comcast.net

**Treasurer:** Weibiao Zhang  
 wbzhang@ti.com

**Program Chair:** Ping Gui  
 pgui@enr.smu.edu

**Meeting Chair:** Huawin Jin  
 hjin@ti.com

**Secretary:** Sachit Garg  
 dalasengineer@yahoo.com

### Technology Management Council Officers:

**Chair:** Mr. Robert B. Bishop (903) 815-8788  
 r.bishop@ieee.org

**Vice Chair:** Mr Paul Lakhnopal  
 narindra\_lakhnopal@hotmail.com

**Secretary/Treasurer:** Mr Mohit S. Malhan (214) 356-5714  
 mohit.05@gmail.com

### Life Member Group Officers:

**Chair:** Mr Narindra Nath Lakhnopal (972) 387-9243  
 narindra\_lakhnopal@hotmail.com

**Vice Chair:** Mr. Robert B. Bishop (903) 815-8788  
 r.bishop@ieee.org



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, special announcements and information for publication should be submitted to Dinesh Rajan (rajand@enr.smu.edu) The deadline for submission of materials is no later than the 20th of the month prior to the month of publication.

**Advertising:** Direction is distributed to approximately 7,200 members in the Greater Dallas area. Invoicing and/or contractual agreements for advertising are administered by Dinesh Rajan, Administrative Chairman and Mark Swenholt, Treasurer, IEEE Dallas Section. All ad insertions must be cleared through the executive board before publication. Advertising rates are as follows:

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