



November 2012

## Table of Contents

Welcome New Members to the Section . . .	2
IEEE OCS Volunteers in the Last 50 Years . . . . .	3
Call for Nominations for Orange County Section 2013 . . . . .	3
Upcoming Events . . . . .	4
Participation in IEEEExtreme 6.0 on Oct 19th 2012 . . . . .	4
Newsletter Inputs . . . . .	4
Report on Students Design Competition . . . . .	5
OCS establishes a Life Member Chapter/Affinity Group . . . . .	6
Advanced Packaging Materials Time . . .	7
IEEE Members Select J. Roberto B. de Marca as 2013 President-Elect . . . .	8
IEEE-USA President-Elect, 2013. . . . .	8
IEEE Region Delegate-Elect/ Director-Elect, 2013-2014 . . . . .	8
What's Your #ComSocStory . . . . .	8
15th IEEE International Symposium and Exhibition on Advanced Packaging Materials . . . . .	9
Experiences In Off-Shore Consulting . .	10
Storing Your Life You're Part of the Zetabyte Future . . . . .	11
Emerging Biomedical Technologies of High Potential Impact: Multi-Spectral Optical and NIR Imaging for Point-Of- Care Applications . . . . .	12
Advertising Section in the Newsletter . .	13
IEEE Fellow Candidates Nominations Due March 1St, 2013 For Fellow Class Of 2014 . . . . .	13
IEEE Fellow Profile: Dr. Frank Shi . . . .	14
Sponsors . . . . .	14
The Curiosity Rover and the Exploration of Mars. . . . .	15
Electrical and Computer Engineering Department. . . . .	16
The Magic of Global Connectivity . . . .	17
IEEE-USA Webinars . . . . .	17
Executive Officers. . . . .	18

## The Chair's Corner:

Greetings IEEE Families!

We have a great deal of activities and programs to report and we trust that this newsletter helps keep you up-to-date on our activities.

In October, we formed a Life Member group and developed an initial plan to the Section's Golden Jubilee celebration, which will take place in March 2013. We had great success in the job fair and the student design competition. We continue to welcome IEEE Distinguished Lecturers to our section and bring several great speakers.

In our efforts to build-up future engineering through our members, we are partnering with several STEM programs across Orange County.

This month, the OC Section nomination committee will finalize the 2013 Section Officers to lead the IEEE-OC Section Executive Committee.

We continue to work hard to keep the IEEE members and potential members informed through our website and through various programs within the section. Please do not hesitate to contact me or one of the executive officers at the section.

Best,

Dr. John Collins

2012 IEEE Orange County Section Chairman

[collins.AT.ieee.org](mailto:collins.AT.ieee.org)

## Welcome New Members to the Section

Aqib Syed	Doug Diep	Timothy Lee	Anthony Jacob Tarau
Aych Ell	Viet Dinh	James Lin	Kurt Kenan Tarhan
Andres Daniel Fernandez	Daniel Doan	Richard Lindsey	Daniel S. Telumbre
Montero	Hayden Donze	Austin Yun Hao Liu	Bryson Thill
William Hillhouse	Arlene Doria	Giovanni Ruiz Martino	Joseph Tirona
Jennifer Kang	Tri Duong	Nattaya Mathitak	Justin Toledo
Jessica Kang	Alan E	Justin Joel McCarty	John Torkington
Jason Song	Ali Etezadkhah	Mark Milam	Andrew Tran
Joshua Michael Davis	Liz Fiacco	Christian Miranda	Anthony Ngoc Tran
Joshua Lopez	Christopher William Fitch	Thomas Moffitt	Nick Tran
Albert Morita	Shane Dana Fontaine	Sevan Mugerdich	Norm Tran
Dylon Mutz	Gerald Frolich	Kyle Muldbakken	Thanh Nhut Pham Tran
Juan Sebastian Villafuerte	Noah Kane Gampe	Jimmy Nghiem	Tony Tran
Nicolas Gregory Ajalat	Chris Garcia	An T Nguyen	Minh Trang
ALEX LEUNG	Jorge Garcia	Hoang Nguyen	Nhu Truong
Teddy Nguyen	Saar Gilat	Kevin Nguyen	James Tsai
Danny Situ	Courtney Jameson Hale	Nghiem Minh Nguyen	Gilbert Tse
Johnny Thoi	Gerald Hernandez	Tri Nguyen	Ray Villagracia
Marilyn Alberto	Jerry Hewitt	Ryan Oberman	Kevin Vincent
Alex Alegre	Jonathan Hightower	Kenechukwu Offoh	Anthony Thanh-Hien Vo
Luis Alonzo	Mohammed Hilfi	Oluseyi Emmanuel	Joslyn Vo
Farhang Ansari	Jordan Hill	Owolabi	Khai Vu
JEFF J BOWENS	Kathleen Hoang	Christopher Painter	Brian Yang
Don Bautista	Michael Horne	James Eberhard Lanikai	Jerry Yang
Eric James Bazua	Irvin Huang	Palmer	Ming-Hsun Yang
Brandon Lee Belt	Travis Hummel	Urvik Patel	Jason Kai Yohena
Marc Bir	Charles Hunt	Victor Pham	Moheb T Youssef
Kyle M Boos	Talbot Jaeger	Nathan Pickrell	Ytian Zhang
Gio Borje	Seema Jain	Matthew J Plust	christopher andelin
Benjamin Boronow	Zhengjun Jiang	Andrew Quintanilla	phong dang
Hector Camacho	Blake Johnston	Ahdel Rahimi	nga my du
Nathaniel Castillo	Kevin Jonaitis	Isauro Jr Ramirez	fadi wadiah francis
Alan Castro	Daniel Juarez	Venudhar Ravishankar	donghui huang
Leonardo Cechet Moro	Rodrigo Ki Wan Kim	Sarah Erika Rice	akila manickam
Calvin Chan	Dylan Kirkby	Brenton Roberts	thuan nham
Raymond Chan	Viranya Komphasouk	Aubrey Beau Robinson	anthony reyes
Anh Tuan Che	Swathi Kondi	Catherine Maria Sakurai	Patrick Do
Ryan Chu	Bailey Kong	Justin Saletta	Michael Andrew Cappe
Franklin P Cocchi	Rafi Koutoby	Michael Schaub	Randy William Harper
CATHERINE DANG	Andy Kwong	Justin Shen	Sergei Novikov
Christopher Paul Daden	DUY LE	Ethan S Sitt	Peyton Paulick
Charles Daff	Mau Le	Eric R Slay	Kunal Malviya
Quoc-Viet Dang	Chris Lee	Chen Song	Daniel Camp
Matthew Dempsey	Dong Ju Lee	John Song	

## IEEE OCS Volunteers in the Last 50 Years

As we celebrate the 50th anniversary of IEEE/OCS next year, we would like to post biographies of all of our volunteers (section level and chapters level) on our website – both to give visibility and kudos to the volunteers, and to motivate new members to join the efforts.

Many of you already have a biography that we can post, and if you send your biography to me, we can get it posted.

For those of you who do not have a biography handy, some of the things that are good to include are:

- Name
- Current IEEE position
- Picture
- Contact (email address, linked-in, twitter)
- Education
- Career highlights and achievements
- Publications (papers, books websites, blogs)
- IEEE membership history and past positions
- Other professional organizations or associations
- Personal information – optional

A biography on the IEEE site carries a lot of Internet authority, so we encourage you to take this opportunity to highlight your achievements. If you are uncomfortable writing about how wonderful you are, send an email answering the bullet points above to me and I will do a rough draft that you can use as a starting point. You will have final approval on the biography we post.

Included below are some links to IEEE biographies to give you an idea what an IEEE biography looks like.

[http://www.ieee.org/about/awards/bios/emberson\\_recipients.html](http://www.ieee.org/about/awards/bios/emberson_recipients.html)

<http://ewh.ieee.org/r1/princeton-centraljersey/bios.html>

<http://cpmt.ieee.org/about-cpmt/61-cpmt-member-at-large-bios>

<http://www.usfirst.org/community/volunteers/senior-mentor-bios>

<https://www.csunalumni.com/default.aspx?Page=VolunteerServiceEmeritiBios>

<http://minesonline.net/s/840/NHindex.aspx?sid=840&gid=1&pgid=496>

Lin Crampton

[lin.crampton.at@gmail.com](mailto:lin.crampton.at@gmail.com)

## Call for Nominations for Orange County Section 2013

Nominations are open for Orange County Section members to apply for Section Officers. The officers will lead the IEEE-OC Section Executive Committee (ExCom) for a 1 year period starting January 2013. Nominate another IEEE member or nominate yourself.

### THE SLATE:

- **Chairman:** The Section Chair shall serve as Chair for all meetings of the Section, and the Section ExCom.
- **Vice Chairman:** The Section Vice Chair shall assist the Chair in the coordination of all Section activities. At the request of the Section Chair or in the absence of the Section Chair, the Section Vice Chair shall chair meetings of the Section and the Section ExCom.
- **Treasurer:** The duties of the Section Treasurer shall include the development of a Section budget for approval by the Section, accounting of all Section funds, keeping financial records, and submitting the Section Financial Report to IEEE Headquarters.
- **Secretary:** The duties of the Section Secretary shall include correspondence, the keeping of the minutes of the Committee meetings, mailing notices, and submission of

meeting and officer reports at the end of each year, and other duties as are assigned to him/her by the Chair.

A basic requirement for all roles is to be an IEEE Member or Graduate Student Member, Member, Senior Member or Fellow grade. Other requirements include regular attendance at Section ExCom Meetings, professionalism, a minimum 1 year commitment, and interest in fostering our community – all in a positive and productive setting.

NOTE: According to the IEEE-OC Section Bylaws, the open nomination period ends 30 days from September 1st, at which point no further nominations shall be accepted.

The Section Nominations Committee (comprising of past Section Chairs) will review all nominations to ensure that the right candidate slate is presented for elections, to ensure strong leadership for our community in the coming years.

Details on our current officers and ExCom are at [www.ieee.org/ocs](http://www.ieee.org/ocs).

Please email me directly with nominations.

Russell Hunter

[RussellH@Computer.org](mailto:RussellH@Computer.org)

Past-Chair, IEEE Orange County Section

## The IEEE Orange County Upcoming Events

### Nov 13

IEEE's Orange County Section and Consumer Electronics Society (CES) Chapter & IEEE CES Distinguished Lecturer Program Present:  
Storing Your Life You're Part of the Zetabyte Future

### Nov 17

Orange County Consultants Network (OCCN) and the Los Angeles Area Consultants Network (LAACN) presents: Experiences In Off-Shore Consulting

### Dec 13

IEEE Orange County Section EMBS Chapter & IEEE EMBS Distinguished Lecturer Program Present:  
Emerging Biomedical Technologies of High Potential Impact:  
Multi-Spectral Optical and NIR Imaging for Point-Of-Care Applications

### Feb 28-Mar 1, 2013

15th IEEE International Symposium and Exhibition: Advanced Packaging Materials

<http://sites.ieee.org/ocs/>

## Participation in IEEEExtreme 6.0 on Oct 19th 2012

### UC Irvine students participated in IEEEExtreme.

Justin Saletta  
Raymond Chan  
James Palmer  
Kevin Jonaitis  
Richard Lee  
Kyle Boos  
Robert Rodriguez  
Michael Cappe  
Gio Borje  
Nick Ajalat  
Travis Hummel  
Kenneth Baldauf  
Irvin Huang  
Eric Bazua  
Alan Castro  
Yitian Zhang  
Jorge Chumbipuma

### CSU Fullerton students participated in IEEEExtreme.

Max Klenk  
Brian Yang  
Fadi Francis

### We thank the proctors who helped the students

Don Black  
David Close  
Frank Nothaft  
James Grise  
Reggie Little  
David Cheng

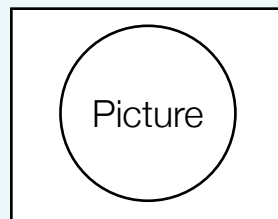
## Newsletter Inputs

We will publish IEEE Orange County Section Newsletter in the beginning of every month. Please provide any Orange County news, engineering conference details, expert view on engineering in Orange County, engineering article or engineering success story to [info@nanomems-research.com](mailto:info@nanomems-research.com) no later than the 15th of a month. We'll publish the items in the following month. In your e-mail, please, enclose your news item between two lines of "+" characters, i.e.:

+++++

News Item Title

Newsletter content Newsletter content, Newsletter content  
Newsletter content Newsletter content Newsletter content  
Newsletter content, Newsletter content Newsletter content  
Newsletter content Newsletter content Newsletter content  
Newsletter content, Newsletter content Newsletter



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We will be transitioning to a website-only submission model in which your news inputs may be submitted at any time. Information on the website address and logistics, will be provided soon. Please, stay tuned.

Thank you,  
Hector J. De Los Santos, IEEE Orange County Section, Newsletter Editor

## Report on Students Design Competition

David Tyler was one of the 1st place winners at this week's Student Design Competition. His project is a website known as Map the Network. Similar to many tools that are available, the website maps the physical locations of Facebook friends; however it also maps the locations of degrees of friends. For instance, the 1st degree contains all of your friends, while the 2nd degree contains the friends of those in the 1st degree, and so on. Through the popular theory of six degrees of separation, it is possible

to map every person in the world (or at least the billion using Facebook) using only six degrees. Due to Facebook privacy controls, for a user to be added, a friend of the user must add the application; as such Facebook users are encouraged to add the application and encourage friends to do the same using the live beta at <http://mapthenetwork.com> to explore the reach of their own social network in the real world.



(Provided by David Tyler for newsletter Report)

### Other prizes are

#### First Prize:

Pooria Mohammadi Yaghni

#### Second Prize:

Hong San Wong

#### Third Place:

Jorge Alejandro Chumbipuma



## OCS establishes a Life Member Chapter/Affinity Group

OCS' formal request to establish a Life Member Chapter/Affinity Group was formally approved by IEEE on 10/15/12. The photos below were taken at the October 6th planning/dinner meeting for OC Section Golden Jubilee and Life Member Chapter Formation Meeting which was organized and chaired by Dr. Stan White, LF.



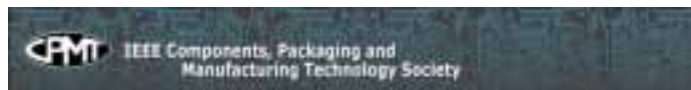
Attendees (L-R): Ralph Hilemen, Judi Hileman, Judy Jelinek, Ram Ronen, Matt Brady (image cut), Bill Pearce, Bob Polkinghorn, Howard Jelinek, DG Gan, Stan White, Allen Stubberud, David Lubman, Bob Gauger, Joe Alfieri, Laura Alfieri and Ed Nakauchi.



Dr. Allen Stubberud, LF, Past UCI ECE School Chairman and UCI Engineering Department Dean (also former USAF Chief Scientist) shares OCS recollections at the meeting. He served as 1978 OCS Chair, and later as the IEEE Region VI Director.

The OCS Life Member group will meet quarterly. Next meeting is January 5th.

If you have any ideas bubbling out of your head, Stan <SAWHITE@aol.com> is anxious to hear them. We need your memories of early the OCS for presentation at the Golden Jubilee observation in February Help!



## CALL FOR PAPERS

15th IEEE International Symposium and Exhibition on

# Advanced Packaging Materials Time

February 27 to March 1, 2013

Location: Atrium Hotel, Irvine, California, USA

Sponsor: IEEE Components, Packaging and Manufacturing Technology (CPMT) Society

### Abstracts are solicited in the following topical areas:

Adhesives and underfills

- materials & applications, advanced processes, and reliability

Circuit boards, substrates, and dielectrics

- advanced circuit boards and substrates, properties, and processing

Encapsulants, thin films, and coatings

- materials & applications, new processes, and reliability

Flip-chip interconnect materials and processing

- bumping materials, bumping methods, and reliability evaluations

Manufacturing and Reliability

- New manufacturing techniques and testing

Materials and processes for 3-D integration

- thru-silicon-via formation, stacking, plating and bonding

Optoelectronic and microwave materials

- New materials and processes for optoelectronic and microwave packaging

Solders and soldering operations

- lead-free solders, new bonding and soldering processes, reliability

Posters

### Who should attend:

Attendees of this symposium have been researchers, developers, producers and users of materials and processes for packaging the whole range of electronic and optoelectronic products.

### Abstract submission:

For presenting a paper in this symposium, please send an abstract (~ 150 words) via e-mail to [clee@uci.edu](mailto:clee@uci.edu) and copy [myim@broadcom.com](mailto:myim@broadcom.com). Please include your affiliation, mailing address, phone number, and e-mail address in your submission.

### Important dates:

Abstract submission deadline: December 15, 2012.

Acceptance notice: within 4 weeks of abstract receipt or Dec 31, 2012, whichever is earlier.

Full manuscript submission deadline: January 15, 2013

### For more information, please contact:

General Chair: Tom Gregorich, Broadcom, Irvine, California, [tomg@broadcom.com](mailto:tomg@broadcom.com) Program Chair: Chin C. Lee, University of California, Irvine, California, [clee@uci.edu](mailto:clee@uci.edu) Publicity Chair: Sam Karikalan, Broadcom, Irvine, California, [samk@broadcom.com](mailto:samk@broadcom.com)

## IEEE Members Select J. Roberto B. de Marca as 2013 President-Elect

5 October 2012 – J. Roberto B. de Marca, professor, Pontifical Catholic University, Rio de Janeiro, Brazil, has been selected as 2013 IEEE President-Elect. Pending acceptance of the Teller's Committee report by the IEEE Board of Directors in November, de Marca will begin serving as IEEE president on 1 January 2014.



He will succeed 2013 IEEE President Peter W. Staecker, AMP M/A-COM (retired), Massachusetts, USA. The other candidate for 2013 IEEE President-Elect was Tariq S. Durrani, research professor, University of Strathclyde, Glasgow, United Kingdom. Both candidates were nominated by the IEEE Board of Directors.

## IEEE-USA President-Elect, 2013

Gary L. Blank (Nominated by IEEE-USA)



## IEEE Region Delegate-Elect/ Director-Elect, 2013-2014

Thomas M. Coughlin  
(Nominated by IEEE Region 6)







### Video Contest

#ComSocStory

60 YEARS  
of IEEE Communications Society



## What's Your #ComSocStory?

*Digital, mobile, social - innovations in communications technology advanced and shaped the world at a lightning speed unprecedented in human history.*

*As an IEEE ComSoc Member, do you have an interesting ComSoc Story to share? A career highlight, an unforgettable ComSoc event, an incredible joke, an Aha moment in technical life...*

### Tell Your #ComSocStory in a 60 Second Video!

Submit the YouTube video link with your full name, IEEE member number and affiliation, to: [society@comsoc.org](mailto:society@comsoc.org) with "Video Contest" in subject line.



**Top Prize:**  
Samsung Galaxy Note  
10.1 (54GB)

**Two 2nd Prizes:**  
Samsung Galaxy Tab 2  
(7-Inch, Wi-Fi)



[More information here >>](#)

This event is sponsored by



Submission deadline: 15 December 2012

1-minute maximum. Submit YouTube link only. One submission per member. Winners will be decided by number of "Likes" by 31 December 2012, and announced in January 2013.

Selected submissions, with the contributors' names and affiliations, will be published on the ComSoc 60th anniversary web site. ComSoc reserves the right to reject inappropriate content.

To qualify, you must be a current ComSoc member [IEEE.org/join](http://IEEE.org/join), or [IEEE.org/joinnew](http://IEEE.org/joinnew)



## The IEEE CPMT Orange County Chapter Presents

# 15th IEEE International Symposium and Exhibition on Advanced Packaging Materials

Greetings!

The IEEE CPMT Orange County Chapter will be hosting the 15th IEEE International Symposium and Exhibition on Advanced Packaging Materials. Following are the details:

15th IEEE International Symposium and Exhibition on Advanced Packaging Materials

**Dates:** February 27 to March 1, 2013

**Venue:** Atrium Hotel, Irvine, California, USA

**Sponsor:** IEEE Components, Packaging and Manufacturing Technology (CPMT) Society

The program committee of this symposium solicits abstracts of papers for presentation at the symposium, in the following topical areas:

- Adhesives and Underfills
- Circuit boards, substrates, and dielectrics
- Encapsulants, thin films, and coatings
- Flip-chip interconnect materials and processing
- Manufacturing and Reliability
- Materials and processes for 3-D integration
- Optoelectronic and microwave materials
- Solders and soldering operations

The deadline for submitting the abstracts is December 15, 2012. For more details, please see the attached first call for papers document.

For more details on the symposium, please contact any of the following organizing committee members:

General Chair: Tom Gregorich, Broadcom Corporation, tomg@broadcom.com

Program Chair: Chin C. Lee, University of California - Irvine, cclee@uci.edu

Asst. Program Chair: MJ Yim, Broadcom Corporation, myim@broadcom.com

Publications: Wayne Koh, Pacrim Technologies, wkoh2003@hotmail.com

Registration & Finances: Melissa Lau, Broadcom Corporation, melissa@broadcom.com

Local Arrangements: Larry Williams, Ansys Corporation, larry.williams@ansys.com and Mehdi Saeidi, Qualcomm, saeidi@ieee.org

Sponsorships: Chris Zumba, Amkor Technology, chris.zumba@amkor.com

Exhibits: Raj Peddi, Henkel, Raj.Peddi@us.henkel.com

Publicity: Sam Karikalan, Broadcom Corporation, samk@broadcom.com

Webmaster: Arpit Mittal, Broadcom Corporation, arpit.mittal@broadcom.com

Best Regards,  
Sam Karikalan

Publicity Chair, APM2013 Organizing Committee  
Chair, IEEE CPMT OC Chapter  
samkarikalan@ieee.org

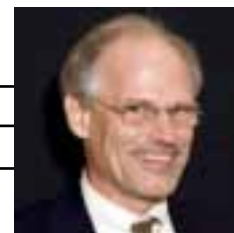
Orange County Consultants Network (OCCN) and the Los Angeles Area Consultants Network (LAACN) presents:

## Experiences In Off—Shore Consulting

<b>Date:</b>	<b>Saturday, November 17, 2012</b>
<b>Topic:</b>	<b>Experiences In Off—Shore Consulting</b>
<b>Speaker Name and Affiliation:</b>	<b>Wes Masenten</b>
<b>Abstract:</b>	<p>Wes Masenten will discuss his experiences and observations while consulting for a company with its major operations based in China. He will open the talk with a brief overview of his background that prepared him for consulting and the importance of networking, especially with off-shore clients.</p> <p>During his talk he will discuss what a consultant should be prepared for, including: a client that is well versed in the current technology and expects it of his consultant, a reluctance to question the consultant's decisions and design, why language is not a barrier and sometimes is an advantage, working around problems associated with not being a participant in all the detailed design reviews and testing, designing for a highly competitive marketplace, and always remembering you are their consultant.</p> <p>The talk will end with observations from visits to the client's facilities in China and a period for discussion/questions.</p>
<b>Biography:</b>	<p>Wes Masenten (M'59—LM'00) received a B.S.E.E. degree from Purdue University, a M.S.E.E. degree from the Massachusetts Institute of Technology, and a Ph.D. degree from the University of California at Irvine. He provides consulting services for the design and development of communication systems and transceiver architectures.</p> <p>He was previously co-founder and Chief Technical Officer of Ditrans Corporation, a company that developed transceivers for wireless communication systems. His prior associations included Northrop Corporation, as Manager of Advanced Avionics System Engineering, and Hughes Aircraft where he served as Technical Director on spread spectrum communication and advanced communication/radar technology programs. He has served as lecturer in special courses on Spread Spectrum and Interference Rejection Techniques at UCLA, University of Maryland, and UC Santa Barbara. He has also taught courses in Control Systems, Digital Control Systems, and Communication Systems at the University of California, Irvine. He has seven awarded patents and eighteen professional publications on: adaptive filters, adaptive antennas, communication systems and stochastic processing. He is past Chair of the OCCN and currently Vice Chair of the Orange County Communication and Signal Processing Section.</p>
<b>Time:</b>	<p>10:00 AM Introductions &amp; Presentation</p> <p>12:00 PM Lunch &amp; Networking</p>
<b>Location:</b>	Cal State Fullerton on Nutwood at Route 57 in Fullerton, in the Engineering and Computer Science (ECS) Building, Room 321.
<b>RSVP:</b>	Lunch is free with reservation.
<b>Contact:</b>	Send reservations or questions to <a href="mailto:r.gauger@ieee.org">r.gauger@ieee.org</a> .

**IEEE's Orange County Consumer Electronics Society (CE) &  
IEEE CE Distinguished Lecturer Program Present:**

## Storing Your Life You're Part of the Zetabyte Future



<b>Date:</b>	<b>Tuesday, November 13, 2012</b>
<b>Topic:</b>	<b>Storing Your Life You're Part of the Zetabyte Future</b>
<b>Speaker Name and Affiliation:</b>	<b>Thomas M. Coughlin President, Coughlin Associates, San Jose California</b>
<b>Abstract:</b>	This presentation discusses the drivers for consumer digital storage, the different mobile and static usage models for digital storage in consumer devices and the resulting consumer storage hierarchy. Important characteristics of consumer storage devices are shown and guidelines are given for how digital storage should be designed in consumer devices. Demand for higher resolution content and for capturing ever greater details of the life of family members will drive increases in commercial as well as personal content storage demand. Sharing of content within a home or over the Internet creates much greater demand for storage since a shared file can be multiplied many times through network sharing. Implementation of a virtualized integrated storage utility into most homes with appropriate ease of use, suitable for consumers, will benefit customers by providing greater access to data as well as enhanced content protection using local as well as remote storage.
<b>Biography:</b>	<p>Tom Coughlin, President, Coughlin Associates is a storage analyst and consultant. He has over 30 years in the data storage industry with multiple engineering and management positions at high profile companies.</p> <p>Dr. Coughlin has many publications and six patents to his credit. Tom is also the author of Digital Storage in Consumer Electronics: The Essential Guide, which was published by Newnes Press in March 2008. Coughlin Associates provides market and technology analysis (including reports on several digital storage technologies and applications and a newsletter) as well as Data Storage Technical Consulting services.</p> <p>Tom is active with SMPTE, IDEMA, SNIA, the IEEE Magnetics Society, IEEE CE Society (Adcom member, TPC member, Associate Editor and VP of Operations and Planning), and other professional organizations. Tom is the founder and organizer of the Annual Storage Visions Conference (<a href="http://www.storagevisions.com">www.storagevisions.com</a>), a partner to the annual Consumer Electronics Show as well as the Creative Storage (<a href="http://www.creativestorage.org">www.creativestorage.org</a>). Tom has also been the chairman of the annual Flash Memory Summit.</p> <p>He received a B.S. in Physics and an M.S.E.E. from the University of Minnesota (Minneapolis) and a PhD in Electrical Engineering from Shinshu University in Nagano, Japan.</p>
<b>Time:</b>	6:00 – 7:00 pm: Registration & Networking 7:00 p.m. – 8:00 p.m. Presentation
<b>Location:</b>	Brandman University 16355 Laguna Canyon Road Irvine, CA (949) 753-4774
<b>Cost:</b>	food will be provided at \$5.00 per person, idollar's accepted
<b>RSVP:</b>	<a href="http://www.eventbrite.com/event/4711140147">http://www.eventbrite.com/event/4711140147</a>
<b>Contact:</b>	<a href="mailto:ReggieLittle@IEEE.ORG">ReggieLittle@IEEE.ORG</a>

**IEEE Orange County Section EMBS Chapter & IEEE EMBS Distinguished Lecturer Program Present:**

## Emerging Biomedical Technologies of High Potential Impact: Multi-Spectral Optical and NIR Imaging for Point-Of-Care Applications

<b>Date:</b>	<b>Thursday, December 13th, 2012</b>
<b>Topic:</b>	<b>Emerging Biomedical Technologies of High Potential Impact: Multi-Spectral Optical and NIR Imaging for Point-Of-Care Applications</b>
<b>Speaker Name and Affiliation:</b>	<b>Atam P. Dhawan, Ph.D.</b> Distinguished Professor, Electrical & Computer Engineering, Interim Dean, Albert Dorman Honors College New Jersey Institute of Technology
<b>Abstract:</b>	Recent advances in sensor electronics, instrumentation and computing technologies continue to impact the field of medicine. Research in basic, applied and clinical sciences have improved the diagnosis, and pathological understanding of critical diseases including cancers, cardiac failures and neurological disorders. This talk will first focus on current and future trends in fast emerging biomedical technologies with high potential impact in improving global healthcare for early diagnosis, treatment monitoring and therapeutic intervention. Five areas of interdisciplinary biomedical research and technology development that are expected to make significant impact in medicine and clinical healthcare will be discussed. While the radiological medical imaging modalities provide essential diagnostic and therapeutic tools, point-of-care healthcare technologies and medical informatics are leading a new perspective to global healthcare issues and personalized medicine. Optical imaging in Point-of-Care healthcare technologies will be explored. Multi-spectral epiluminescence and transillumination imaging technologies for skin-lesion imaging for early detection and characterization of malignant melanoma will be presented. Recent results on oxygen saturation and blood glucose measurement will also be discussed.
<b>Biography:</b>	Atam P. Dhawan obtained his bachelor's and master's degrees from the Indian Institute of Technology, Roorkee, and Ph.D. from the University of Manitoba, all in Electrical Engineering. From 1985-2000, he held faculty positions in Electrical & Computer Engineering, and Radiology departments at University of Houston, University of Cincinnati, University of Texas, University of Texas Medical Center (Dallas) and University of Toledo. In July 2000, he joined NJIT where he served as the Chair of the Department of Electrical and Computer Engineering for nine years. Currently he is a Distinguished Professor of Electrical & Computer Engineering and Interim Dean of Albert Dorman Honors College at NJIT where he serves as the Executive Director of the Interdisciplinary Design Studio. He is also an Adjunct Professor of Radiology at the University of Medicine and Dentistry of New Jersey.  Dr. Dhawan has published more than 210 research articles in refereed journals, books, and conference proceedings. His current research interests are medical imaging, multi-modality medical image analysis, adaptive learning and pattern recognition. His research work has been funded by NIH, NSF and several industries. Dr. Dhawan is a recipient of Martin Epstein Award (1984), National Institutes of Health FIRST Award (1988), Sigma-Xi Young Investigator Award (1992), University of Cincinnati Faculty Achievement Award (1994) and the prestigious IEEE Engineering in Medicine and Biology Early Career Achievement Award (1995) and University of Toledo Doermann Distinguished Lecture Award (1999). He is Senior Editor of IEEE Transactions of Biomedical Engineering and Editor-In-Charge of IEEE TBME Letters. He is also Co-Editor-In-Chief of the new open-access IEEE Journal of Translational Engineering in Health and Medicine. He has served on many IEEE EMBS professional committees and has delivered several Workshops on Intelligent Biomedical Image Analysis in IEEE EMBS International Conferences (1996, 1997, 2000,

Continued...

## Emerging Biomedical Technologies of High Potential Impact: Multi-Spectral Optical and NIR Imaging for Point-Of-Care Applications Continued...

<b>Biography cont...</b>	<p>2003). He served as the Chair of the “Emerging Technologies Committee” of the IEEE-EMB Society from 1997-99, and 2009-11. He is also a member of the IEEE Life Sciences Committee. He was the Chair of the “New Frontiers in Biomedical Engineering” Symposium at the World Congress 2000 on Medical Physics and Biomedical Engineering. He was the Conference Chair of the IEEE 28th International Conference of Engineering in Medicine and Biology Society, New York in 2006. He served as American Liaison and EMBS Representative in the Steering Committee of International Symposium of Biomedical Imaging (2009-11). He is the Conference Chair of IEEE International Conference on Point-of-Care Healthcare Technologies to be held in Bangalore India from January 16 to January 18, 2013.</p> <p>Dr. Dhawan has chaired numerous NIH special emphasis and review panels. Currently he chairs the NIH Chartered Study Section on Biomedical Computing and Health Informatics (2008-11). He is a Fellow of the IEEE and a member of Sigma Xi and Eta Kappa Nu honor societies. He is listed in Who’s Who in the World, Who’s Who in America, Who’s Who in Engineering, and Who’s Who Among America’s Teachers</p>
<b>Time:</b>	<p>6pm Networking 7pm Presentation</p>
<b>Location:</b>	<p>Brandman University • Room 111 16355 Laguna Canyon Road, Irvine, CA(949) 753-4774</p>
<b>Food:</b>	<p>Food will be provided at \$5.00 per person, idollars accepted</p>
<b>RSVP:</b>	<p><a href="http://embstalk.eventbrite.com/">http://embstalk.eventbrite.com/</a></p>

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## IEEE Fellow Profile: Dr. Frank Shi



Dr. FRANK SHI is a Professor at the Department of Chemical Engineering and Materials Science and Department of Electrical Engineering and Computer Science and the Director of Optoelectronics Packaging & Materials Labs at the University of California, Irvine.

Professor Shi received his Ph.D. degree from the California Institute of Technology, Pasadena by working on the fundamental issues of nucleation and crystallization of amorphous Si and other materials. For this work on Si and SiGe materials, Prof. Shi was also an invited guest of Professor Hans Queisser's team at Max Planck Institute for Solid State Physics, who was one of the famous "Shockley Eight" members of William Shockley Lab, the first Silicon Valley company. Prof. Shi has also contributed to the Cu/low-k interconnect technology including the report on the comparison of polymer low-k candidates for SEMATECH, and the development of CMP modeling and process design, which were reported by Semiconductor International twice as breaking technology news. Prof. Shi established a unique lab for the development of technologies for the packaging of active and passive photonic, IC and optical devices. Professor Shi has trained over 30 Ph.D. and post-doctorial students and some of them are taking leading roles in international companies and other organizations, has published about 200 referred journal and proceeding papers and has served several leadership roles for professional societies including as Chair for Opto and Photonic Packaging Committee of IEEE-CPMT (01-04). Prof. Shi has also served as a technical consultant for various companies and organizations in both US and abroad, and is also a co-founder for AFO Research Inc., specializing in the development of glass materials for photonic devices, and co-founders for another two high tech companies. Professor Shi is honored by IEEE-CPMT Society in 2010 as the recipient of Outstanding Sustained Technical Contribution Award for his accomplishments in multiple IEEE CPMT fields including optoelectronic packaging technology development; device and packaging materials development; electronic packaging and manufacturing technology development; and his leadership in the technology transfer of these various developments from a research environment to an industrial commercialization and production environment. His significant scientific and technological contributions include Optoelectronic Packaging for White LED Technologies and Fiber-Optic Packaging (Fiber-Optic Alignment, Attachment and Coupling) Technologies, Optoelectronic Device and Packaging Materials and IC Packaging and Manufacturing

Prof Shi was elected to be an IEEE Fellow in 2011 for his contributions to optoelectronics packaging technology.

**Special JPL Panel Presentation! November 20, 2012 Dinner Meeting**

## The Curiosity Rover and the Exploration of Mars



### Special Guest Speakers:

Dr. Adam Steltzner

EDL Manager

Mr. Allen Chen

EDL Operations and Flight Dynamics Lead

Dr. Anita Sengupta

Senior Systems Engineer

Mr. Bobak Ferdowsi

Flight Director and Operations Engineer

Dr. Michael Watkins

Navigation and Mission Design Section Manager

### Panel Moderator:

Dr. Nicola Sarzi-Amade

**Programs Chair**, AIAA Los Angeles-Las Vegas Section

**Vice President**, Scorpius Space Launch Company

The Mars Science Laboratory (MSL) mission's Curiosity rover, the most technologically advanced rover ever built, landed in Mars' Gale Crater the evening of Aug. 5 PDT (morning of Aug. 6 EDT) using a series of complicated landing maneuvers never before attempted. The specialized landing sequence, which employed a giant parachute, a jet-controlled descent vehicle and a bungee-like apparatus called a "sky crane," was devised because tested landing techniques used during previous rover missions could not safely accommodate the much larger and heavier rover. Curiosity's mission is to determine whether the Red Planet ever was, or is, habitable to microbial life. The rover, which

is about the size of a MINI Cooper, is equipped with 17 cameras and a robotic arm containing a suite of specialized laboratory-like tools and instruments.

Curiosity has ingested its first solid sample into an analytical instrument inside the rover, a capability at the core of the two-year mission. The rover's Chemistry and Mineralogy (CheMin) instrument is analyzing this sample to determine what minerals it contains. The first Martian rock NASA's Curiosity rover has reached out to touch presents a more varied composition than expected from previous missions. The rock also resembles some unusual rocks from Earth's interior.

### Tuesday, November 20th

5:30 pm - 9:00 pm

5:30 pm - 6:30 pm Event Check-in and  
Networking Reception with Cash Bar

6:30 pm - 7:30 pm Dinner

7:30 pm - 9:00 pm Panel Presentation/Questions

### Location:

Proud Bird Restaurant, LAX

11022 Aviation Blvd, Los Angeles, CA 90045

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## California State Polytechnic University, Pomona

# Electrical and Computer Engineering Department

The Electrical and Computer Engineering Department in the College of Engineering at California State Polytechnic University, Pomona (Cal Poly Pomona) invites applications for two tenure-track positions in power systems at the rank of Assistant Professor to begin Fall 2013.

**The Position:** Responsibilities include teaching undergraduate and graduate courses, advising students, conducting research, and providing services to the department, college and university. Candidates must be able to effectively teach theory as well as develop innovative lab projects. Successful candidates will help with the establishment of the Power Center, and the Smart Grid and Power Engineering program.

### Minimum Qualifications:

- Ph.D. in Electrical and/or Computer Engineering or related area from an accredited university by June 2013
- Demonstrated commitment to undergraduate and graduate teaching
- Professional engineering work experience
- Strong oral and written communication skills
- Demonstrated commitment to work with diverse students and community populations

### Preferred/Desired Qualifications:

- Demonstrated ability to establish industrial collaborations
- Demonstrated ability in developing electrical and computer engineering laboratories especially in power systems
- Expertise in energy, renewable, power systems, smart grid and network security
- Demonstrated ability in applied research and grants in smart grid and network security
- Demonstrated ability to teach power classes in both undergraduate and graduate level
- Demonstrated ability to be responsive to the educational equity goals of the university and its increasing ethnic diversity and international character

**Application Procedure:** A completed application will consist of:

- A cover letter that describes the candidate's teaching and research experience and interests, and addresses the duties and qualifications articulated in the position description;
- A curriculum vitae comprised of elements specified on the application form, including the names, titles, addresses, and telephone numbers of at least five individuals who can speak to the candidate's potential for success in this position;
- A completed application form (available at <http://www.csupomona.edu/~engineering/faculty/index.htm>);
- A transcript showing the highest degree earned (an official transcript will be required of finalists); and
- Finalists for the position will be required to provide three recent letters of reference.

The position is open until filled. To be included in the first review, completed applications must be received by Dec. 31, 2012. Please address all nominations, inquiries, requests, and application materials to:

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 California State Polytechnic University, Pomona  
 Pomona, CA 91768  
 Phone: 909.869.2535 FAX: 909.869.4687  
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## IEEE Globecom 2012

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The 2012 IEEE Global Communications Conference (GLOBECOM) will be held December 3 – 7, 2012 at the Disneyland Hotel Conference Center in Anaheim, CA.

It will feature a comprehensive technical program including 12 Symposia and a number of Tutorials and Workshops. GLOBECOM 2012 will also include an attractive industrial and forum program including keynote speakers, various Business, Technology and Industry fora, and vendor exhibits.

Prospective authors are invited to submit original technical papers for presentation at the conference and publication in the Proceedings. Proposals for Tutorials, Workshops, and Fora are also invited. Please visit the GLOBECOM 2012 website: <http://www.ieee-globecom.org/2012> for details about the conference and submission information;

If you are interested in volunteering for the conference, please contact Shelley-Grace Herman, Conference Operations Chair at [s.g.herman@ieee.org](mailto:s.g.herman@ieee.org).

## IEEE-USA Webinars

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### Getting Your Resume Out of Cyberspace and onto the Manager's Desk!

Date: 15 Nov 2012 | 2-3 PM ET

Presenter(s): Elizabeth Lions

In today's digital landscape, applying for a job can be like getting lost in an electronic maze. Employed or unemployed, more and more people are looking for their next career opportunity, and too often are finding themselves getting more and more frustrated by the endless cycle of applying online and not hearing back from hiring managers. Unfortunately, qualified candidates can go unnoticed. So, what can you do to make your resume

### Several Archived Webinars at

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For example,

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