

the
LYNX

March 2012

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IEEE/Orange County Website:
www.ieee.org/ocs

With thanks to our sponsors:



The Chair's Corner:

Greetings!

IEEE Orange County Section (OCS) is committed to offer several membership benefit programs. We encourage you to take advantage of these opportunities to gain more knowledge, consider new avenues, and leverage networking. We had great success in recruiting several skilled and committed volunteers for our programs. I take this opportunity to welcome the new volunteers who are already plugged into the chapters and several committees. We also partner together with local industries and foundations to promote the core values of IEEE in Orange County. We thank them for their support.

This year, the section encourages all the Chapters with a seed funding to build up entrepreneurs in the student community. EMBS and CS/GameSig have planned student design competitions. All the ten Chapters in OCS and the Section will nominate two awards each- Outstanding Engineer Award and Outstanding Leadership Award. The annual awards banquet to appreciate section/chapters officers, volunteers and outstanding members will be held in May this year.

As always, I hope you will visit the Orange County Section's and Chapters' websites and I welcome your advice and feedback on ways to continually improve membership benefits.

Best,

John Collins, Ph.D.

Chairman, IEEE Orange County Section

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



The IEEE Orange County Upcoming Events

Mar 26

What's New in the MERLOT Educational Technology System

Speaker: Dr. Sorel Reisman, 2011
Computer Society President

April 23

Machine Learning and the Data Deluge

Speaker: Professor Max Welling, PhD
Associate Editor in Chief IEEE Transactions on Pattern Analysis and Machine Intelligence

Associate Director of the Center for Machine Learning and Intelligent Systems
School of Information and Computer Sciences, UCI

April 28

GameSIG Student Game Developers – First Annual Student Showcase and Review

Presented by UCI, CSUF, & Chapman Universities

May 21

Introduction to iPad/iPhone Programming

Speaker: Professor Michael Shafae
College of Engineering and Computer Science
California State University - Fullerton

Oct 24

IEEE OC Tech Job Fair

Oct 24

IEEE OC Student Design Contest

If you'd like your event to be included, please email details to me@sharonforsberg.com

Chapters Awards

There are 10 technical chapters in OCS. Please send nominations to chapter chair with a copy to OCS Awards Coordinator. The contact information of chapter chairs are found at the section website

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

Section Awards

The best nominations from the chapters will be considered for section awards. In addition, IEEE members who are not part of any chapters can directly send their nominations to Awards Coordinator.

Mr. Alvin Joseph

Phone: (714) 552-2489

e-Mail: alvin.at.ieee.org

IEEE Orange County Section/Chapters would like to recognize and award IEEE members for their outstanding contributions and accomplishments. These awards winners will be nominated for Area level or further Region level awards. The awards are for the following areas:

1. Outstanding Engineer Award:

Award is designed to recognize IEEE members of Orange County Section/Chapters who through their technical abilities have made outstanding contributions to their profession. It recognizes the development of new technical concepts, significant patents, development of new devices, development of applications, new designs, significant cost reductions using known techniques.

2. Outstanding Leadership Award:

Award is designed to recognize IEEE members of Orange County Section/Chapters who through their professional and technical abilities have made outstanding and noteworthy contributions to the Institute, their communities, fellow professionals and fellow man. The award is not designed to recognize a single achievement, but rather collective contributions complemented by singular works exemplifying the objectives and attributes of IEEE.

Awards Procedure Guidelines:

Process Overview

The nominations for the awards are submitted directly to Awards Chair. The Awards Chair compiles all the submittals and forward to the Awards Committee to review the nominations and to select the winners. The Orange County Section/Chapter Awards are presented to the winners at the Annual Orange County Section Awards dinner in May.

Awards Schedule

Call for Nominations: March 12

Nomination Submittal Deadline: April 13

Awards Recipients Notified April 30

The awards packet is available at <http://sites.ieee.org/ocs/awards/>

New IEEE Orange County, California, MTT-S/EDS-S Joint Chapter Group in LinkedIn

You are invited to join the IEEE OC MTT-S/EDS-S open group in LinkedIn. This group brings together members of the IEEE Microwave Theory and Techniques, and Electron Devices Societies, residing in Orange County. Its purpose is to serve as a medium for sharing information about: Topics of interest and announcements for future Talks, networking, etc, including firsthand information on new job opportunities in the RF/Microwave, RFIC, Semiconductor Devices and related fields.

Hector J. De Los Santos, Ph.D.

Chairman, IEEE OC MTT-S/EDS-S Joint Chapter

OC Section Celebrates 50th Anniversary Next Year

Within the OC Section we have a wealth of residual historic knowledge of the formation of the Section and its "presection" history as the Orange Belt subsection of LA. Is that you? If your IEEE Member Number has two, three or four leading zeros, we want to pick your brain for memories. From our records, we see that there is one member with 0000xxxx; there are nine members with 000xxxxx and 249 with 00xxxxxx. A total of 259!

If you are one of those 259, as I am, I'd appreciate hearing from you. We need your inputs for our OCS history project.

Thanks for your consideration.

Dr. Stan White, LF
433 E. Ave. Cordoba
San Clemente, 92672
sawhite@aol.com
(949) 498-5519

New Chapter Formation — Consumer Electronics Society and Aerospace and Electronics Society

Petitions to the formation of the AES and CES chapters in IEEE Orange County Section are complete. There will be a dinner meeting at UCI Club on Mar 21st 2012 (Wednesday) at 6:30pm to meet and select the Chapter Officers. Interested volunteer members please register and join the meeting.

<http://newchapters.eventbrite.com>

Address: UCI Club 801 E.Peltason Dr Irvine, CA 92697

Typical Officer positions at the chapters include

Chair
Vice Chair
Secretary
Treasurer
List Server/SAMIEEE Manager
Technical Program Chair
Technical Program Co-chair
Workshop Chair
Tutorial Chair
Industry Relations Coordinator
Nominations and Appointments
Newsletter
Publicity Chair
Awards and Recognition
Membership Development
Webmaster

IEEE SSCS-Orange County Chapter Hosts Seminar on 802.11 Radio Design

DL Arya Behzad Addresses Wireless Designers Working in Greater San Diego

Wireless-device designers from southern California tech companies packed a meeting room at San Diego's Knobbe Conference Center on the evening of 18 October for a seminar sponsored by SSCS-Orange County, "An Introduction to 802.11a/b/g/n/ac Radio Design: From Systems to Transistors" by Broadcomm Senior Director of Engineering and IEEE Fellow Arya Behzad. According to Chapter Chair Farhad Mafie, as many as 70 turned out for this presentation because many high-tech companies in Southern California are designing wireless ICs and IPs to meet the expanding requirement for integrating wireless technology into consumer electronic products such as laptops, smart phones, and tablets, which have built-in wireless radios for 802.11, Bluetooth, GPS, and other interfaces. As a result, he said designing radios has become "one of the most challenging and complex aspects of IC design for wireless applications in the San Diego area, which is known as 'the wireless center of the world'." Behzad's lecture was free for IEEE members, students, and engineers and technologists in transition, as well as for visitors considering becoming IEEE and SSCS members.

—Katherine Olstein

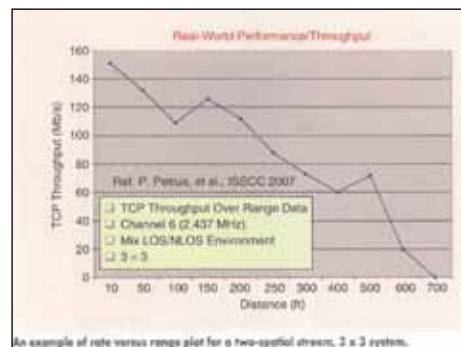


Abstract

With nine of ten *Time Magazine* gadgets of the year in 2010 WiFi enabled, it is expected that the demand for WiFi chip sets will exceed that of cellular chip sets by 2014, as WiFi chips penetrate traditional connectivity devices as well as mobile and media based devices. To optimize communication system performance in a multipath environment such as that of a typical office or home, increasing the signal-to-noise ratio of the link to compensate for multipath is futile because probabilistically, even in a high SNR link, errors often do occur due to the deep fade present in the channel. However, the concept of diversity in time, frequency, and/or space domains can be utilized to combat the effects of multipath and to increase the reliability of the link. Diversity can be utilized in time,

frequency, and/or space domains. Diversity presents itself in a variety of forms, such as orthogonal frequency domain modulation (OFDM), which can be utilized as a mechanism to obtain diversity in the frequency domain, and several space-domain diversity techniques, such as selection diversity, maximum ratio combining (MRC), and space-time coding techniques. Multiantenna systems that utilize the concept of spatial diversity can offer power gain, diversity gain, or "degree of freedom" gain. The latter is possible only if multiple antennas on both the receiver and the transmitter are utilized [multi-in multi-out (MIMO)]. By utilizing the degree of freedom gain, the capacity of the channel can be increased significantly by as much as $\min(n, m)$ where n and m are the number of antennas utilized on the receiver and the transmitter.

Evolution of Radio: SISO to MIMO—An Example			
	802.11a	2 × 2 802.11n	3 × 3 802.11n
Author/Conf	Behzad, ISSCC 2003	Behzad, ISSCC 2007	A-Albeik, ISSCC 2011
Radio/SoC	Radio Only	Radio Only	SoC
Process	0.18- μ m CMOS	0.18- μ m CMOS	65-nm CMOS
Area (mm ²)	11.7	18	10.4 (Radio)
In-Band P/N (5 GHz; dBc/Hz)	−100	−108	−102
Tx EVM Floor (5 GHz; dB)	−34	−40	−36
Rx NF (dB)	4	4	4
Channel Throughput	24	> 200	> 300



IEEE CPMT Orange County Chapter will hold the March technical meetings as follows:

Topic: Thermal Interface Material in Electronics Thermal Management

Speaker: Dr. Sanjay Misra, Director of Research & Development, The Bergquist Company

Date: Wednesday, March 21, 2012

Time: 6 - 7pm, dinner (pizza and soda provided by CPMT OC Chapter) will be served at the end of the presentation

Venue: Broadcom Corporation, 5300 California Ave., Irvine, CA 92617 – Bldg. 2 Conf. Room 2-1037 (Salt Creek)

For more details, RSVP and the event to your calendar, please visit

https://meetings.vtools.ieee.org/meeting_view/list_meeting/11183

The Executive Committee of the Chapter invites everyone of you to attend this meeting and actively participate in all our future activities. Also, please feel free to forward this announcement document to all your friends who may be interested in this talk, as this meeting is OPEN to ALL to attend.

You can follow the Chapter activities on our website at <http://sites.ieee.org/ocs-cpmt> or on LinkedIn at http://www.linkedin.com/groups?gid=3996387&trk=hb_side_g.

Thanks much for your participation and support.

Best Regards,

Mehdi Saeidi

Co-chair, IEEE CPMT Orange County Chapter Technical Program

E-mail: saeidi@ieee.org

Tel.: (949) 296-5618

To IEEE Orange County Chapters:

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@nanomemms-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.:

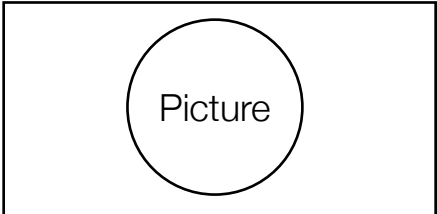
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News Item Title

Newsletter content Newsletter content, Newsletter content Newsletter content

Newsletter content Newsletter content, Newsletter content Newsletter content

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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

IEEE Orange County Computer Society (OCCS) Is Pleased to Present:

"MERLOT, the Multimedia Education Resource for Learning and Online Teaching"

Date:	March 26, 2012 (the 4th Monday of the month)
Topic:	MERLOT, the Multimedia Education Resource for Learning and Online Teaching
Speaker:	Dr. Sorel Reisman Managing Director of MERLOT.ORG, Professor of Information Systems at CSUF 2011 President of the IEEE Computer Society
Time:	Social Hour: 6:00 p.m. Dinner 6:30 p.m. Presentation: 7:00 p.m.
Location:	Brandman University 16355 Laguna Canyon Road Irvine, CA 92618
Cost:	Regular: \$10.00 Student IEEE Members and Unemployed (FREE): \$0 Presentation Only (FREE): \$0
Abstract	MERLOT, the Multimedia Education Resource for Learning and Online Teaching is a 15 year-old consortium of higher education institutions developed and supported by the California State University System Office of the Chancellor. The consortium supports a community of more than 100,000 subscribers and a digital library containing more than 32,000 carefully curated open education resource (OER) teaching and learning materials. This presentation will include an overview of MERLOT and its international community, the use and reuse of OER employing demonstrated examples from the MERLOT system, MERLOT's support of Creative Commons, MERLOT's attention to issues of accessibility, how MERLOT integrates with learning management and other Web-based systems, and the development of the MERLOT Content Builder, an adaptation of the Carnegie Foundation's KEEP Toolkit.
Biography	<p>Dr. Sorel Reisman, 2011 President of the IEEE Computer Society, is Managing Director of the international, higher education consortium MERLOT.ORG at the California State University Office of the Chancellor, and Professor of Information Systems at California State University Fullerton. As CS Past President, Reisman chairs the Intersociety Cooperation Committee, responsible for the relationships with sister computer societies around the world. Dr. Reisman has held senior management positions at IBM (Canada and US), Toshiba (US), and EMI (UK). He is a Senior IEEE member, was Vice President of the Computer Society Publications Board, and Vice President of the Electronic Products and Services Board where he developed and initiated the Computer Society's eLearning and online books programs. He is currently a member of the IEEE Education Activities Board and the IEEE Technical Activities Board.</p> <p>Dr. Reisman was editorial board member/columnist on IEEE Software, founding board member of IEEE Multimedia and IEEE ITPro, author of the column The Ivory Tower, and reviewer for IEEE Transactions in Education. Reisman has presented/published 50+ articles and the books Multimedia Computing: Preparing for the 21st Century and Electronic Learning Communities" Current Issues and Best Practices. Reisman received his electrical engineering degree, and MA and PhD in Computer Applications from the University of Toronto.</p>

IEEE Orange County Engineering in Medicine and Biology Society (EMBS)

Introducing the Biomedical Engineering Student Team (BEST) Competition!

SCOPE

IEEE EMBS and Engineering World Health (EWH) are sponsoring the first annual medical device design competition in the 2011-2012 academic year. This year's goal is to design a medical diagnostic device that is portable and low cost and is suitable for low resource settings such as in the developing world. The diagnostic device should address a developing world health issue (for example, malaria, tuberculosis, HIV, etc.) All undergraduate and graduate students are welcome to join! See details below. You also can visit the Design Competition page <http://www.clubs.uci.edu/ewh/design-competition/>

PRIZES

First prize: \$2000

Second prize: \$1000

Third prize: \$500

Additionally, there is an opportunity for competition winners to continue with their design ideas and carry them into the prototype stage by going through the Calit2 Multidisciplinary Design Projects (<http://www.urop.uci.edu/mdp.html>). Through MDP, the teams will be provided with faculty mentors, lab space, and funding for materials to build their prototypes!

ELIGIBILITY

Each team **MUST** have a majority of members be engineering students that are registered members of IEEE-EMBS (<http://embs.org/>). (Join IEEE, create an account, and then join EMBS.) IEEE-EMBS will subsidize part of the membership fees. Engineering World Health at UCI will also provide financial assistance for all EWH members officially registered in the competition and with a submitted proposal. It is recommended to have 3-5 people in your team.

MEMBERSHIP FEES

The cost per person for IEEE-EMBS membership goes like this:

IEEE membership (half year): \$16

EMBS membership (half year): \$10

TOTAL = \$26/person

However, the Orange County IEEE chapter will reimburse you 100% of the IEEE membership and the Orange County EMBS chapter will pay for the EMBS membership, so now it becomes:

IEEE membership (half year): FREE

EMBS membership (half year): FREE

TOTAL = FREE after 100% reimbursement

The half-year membership fee kicks in after March 1 and lasts until Dec 31, 2012, so you actually get 9 months of membership for the 6 month fee. Membership benefits can be found IEEE and EMBS websites.

NOTE: You should have registered IEEE/EMBS memberships by April 20th (the time of the proposal submission). Again, discounted membership rates are available after March 1.

NOTE: All team members that register and submit proposal will be recognized on our website as participating EWH members.

TIMELINE

March 10, 2012 - Team registration – 17 Teams have been registered.

April 20, 2012 (Friday 11:59pm) - Proposal Submission

May 16, 2012 (Tentatively – Weds 2pm-7pm) –

Final Presentation of top 5 teams and Awards Reception

DESIGN PROPOSAL SUBMISSION:

- Format of Design Proposal:
- Pages: 7 page maximum (references not included in the page limit)
- Contents: Cover Page (with team name, members, and IEEE-EMBS membership IDs), Objective, Background/Significance, Design Specifications, Design Justification, Cost Component Analysis, Business Implementation
- Evaluation Criteria:
 1. Diagnostic Function-Technical Merit (40%)
 2. Low Cost (15%)
 3. Ease of Use and developing world deployment (30%)
 4. Business Implementation (15%)

Download the complete details of the Evaluation Criteria (http://www.clubs.uci.edu/ewh/download/BEST_competition_evaluation_criteria.pdf).
- Format: Margins must be no less than 1". Font should be Arial. Font size should not be less than 11pts for text. Figure captions, tables, and charts should have font sizes no less than 8pts.
- Only PDF files are accepted

IEEE PES / IAS Chapter of Orange County Meeting Notification:



Date:	Thursday March 15, 2012
Topic:	Load Shedding System Applications
Speaker:	Michael Nakamura, East Bay Municipal Utility District & Scott Manson, Schweitzer Engineering Laboratories, Inc.
Time:	6:00 PM Social - 6:30 PM. No Host Bar/Dinner - 6:45 PM Presentation The Doubletree Club Orange County Airport
Location:	7 Hutton Centre Dr. Santa Ana, Ca. 92707 Phone: 714-751-2400
Reservation:	<p>Steve Schinko, Eaton Corp. 25692 Patterson Place, Laguna Hills, Ca. 92653 Tel: 909-869-8250 Fax: 800-884-5804 E-mail: steveschinko@eaton.com</p> <ul style="list-style-type: none"> • Reservations for dinner should be made by the 9th • checks must be received by the 14th • Meal Cost: \$25.00 if reservation received by deadline: \$30.00 at the door. • Student members are FREE! Program Only attendees (no cost) are also welcome. • Make checks payable to IEEE/PES and mail to: Steve Schinko (IEEE) • Please specify a dinner entree: Chicken, Fish, or Vegetarian. <p>A prize drawing will be made at the end of the meeting for those who have prepaid their reservation. The prize will be a free dinner at a future meeting.</p>
Abstract	<p>Many large industrial facilities utilize load shedding systems to avoid widespread power outages by automatically shedding pre-defined loads according to the power available from the sources. This meeting will feature two presentations. In the first presentation, Michael Nakamura will present "Case Study: Shortcomings of a Load Shedding System." The presentation will discuss the limitations of an existing load shedding system installed at a large wastewater treatment plant. Mr. Nakamura will describe the key considerations for evaluating a load shedding system and the steps to perform this evaluation. In the second presentation, Scott Manson will present "Anatomy of a Blackout: Back to Basic Physics." The concepts of this presentation apply to all AC power systems, large and small. The dynamics of governors, load composition (characterization), short term unit capacity (a.k.a. 'incremental reserve margin'), and system H (inertia) shall be correlated to short and long term system frequency response characteristics of a power system under stress. Modern methods of preventing cascading blackouts shall be shared, with case study data from recent projects.</p>
Biography	<p>Michael Nakamura is a Senior Electrical Engineer at the East Bay Municipal Utility District. He has 17 years of experience in the design, construction, testing, startup, commissioning, and troubleshooting of power distribution, control, and automation systems at water and wastewater facilities. Mr. Nakamura received the B.S.E.E. degree from California Polytechnic State University at San Luis Obispo. He is a Senior Member of IEEE and is active in the local chapter of the Industry Applications Society serving as Treasurer. Mr. Nakamura holds a Certificate in Project Management from UC Berkeley Extension, and is a Registered Professional Engineer in the State of California.</p> <p>Scott Manson is the Technical Director of Engineering Services at Schweitzer Engineering Laboratories, Inc. (SEL). He received a Masters in Electrical Engineering from the University of Wisconsin-Madison and his Bachelors in Electrical Engineering from Washington State University. Scott worked at 3M Corporation as a control system engineer for six years prior to joining SEL in 2002. Scott has experience in designing and implementing control systems for electrical utility customers, industrial power management systems, high-speed web lines, multiaxis motion control systems, and precision machine tools. Scott is a registered professional engineer in Washington, Alaska, North Dakota, Idaho, and Louisiana</p>

Chairman:	John Briones: Carollo Engineers, 714-593-5100, JBriones@carollo.com
Vice Chairman:	Ian Varley: Parsons Brinckerhoff, 213-304-6140, varleyi1@pbworld.com
Secretary:	Vacant
Treasurer:	Steve Schinko: Eaton Corp, 909-869-8250, steveschinko@eaton.com
Publicity:	Robert Ryan: GE Energy, 714-572-7117, Robert.Ryan@ge.com
Past Chairman:	Mario Manansala: CDM, 949-930-9870, manansalamu@cdm.com
PACE:	Randy Denton: CH2M Hill 714.435.6120, Randy.Denton@CH2M.com

IEEE's OC Entrepreneurs' Network (OCEN) & IEEE's OC Solid-State Circuits Society (SSCS) Present:

Superconnectivity™ Getting Order-of-Magnitude Improvements with Advanced Management Techniques Mike Sanders, Southern California Edison

Speaker: Mike Sanders

Abstract: SuperConnectivity™ – Getting Order-of-Magnitude Improvements with Advanced-Management Techniques offers four, very different advanced-management skills to optimize performance and help managers and employees alike achieve individual and organizational goals. Rather than the usual improvement targets of 5, 10, or 20%, advanced-management techniques look for order-of-magnitude, breakthrough improvements. The four advanced-management tools are based on Dr. Ken Blanchard's developmental matching model; Dr. Childre's intuitive, Heartmath-influenced perceptive introspection; Dr. Kahili King's Native American self-mastery; and Dr. Gary Chapman's selective and directive language approach. The goal of the presentation is to arm us with a set of symbiotic, advanced-management tools and the knowledge of how to use them. This knowledge will produce effective management, lasting solutions, confidence, wisdom, peace, order-of-magnitude results, and fun.

Day: Saturday, March 31, 2012

Fee: Free for all the IEEE members, as well as those who are exploring to join IEEE, SSCS & OCEN!

Time: 10:00 a.m. – 12:30 p.m.

**Space is limited, please RSVP:
IEEE.OC.SSCS.RSVP@Gmail.com**

**Send questions to Farhad Mafie, IEEE-OC SSCS/
OCEN Chairman: FarhadMafie@Gmail.com**

Speaker Biography: Mike is an IT Manager at Southern California Edison. In his position at SCE, Mike also manages the Project Manager Training Program in partnership with University of California Irvine. This one-year classroom program provides SCE employees with a certificate in Project Management. Mike has also served as President of the Inland Empire Chapter of the Society for Technical Communication (the world-wide technical writer's association), and President of the Project Management Institute, California Inland Empire Chapter. With over 25 years of experience in management and writing, Mike has also taught and trained at the university, college, and industry levels and is a regular public speaker. He has presented on the topics of advanced multitasking, business writing, business organization, and advanced management at numerous corporations and government agencies throughout Southern California. Mike has a BA in Organizational Management and has earned certificates in Small Business Administration, Satellite Technology, DOD and Commercial Proposal Writing, and Writing Instruction. He is also a PMP and currently completing a Master's degree in Organizational Leadership.

Address & Information: Knobbe Martens, 2040 Main St., Irvine, CA. (Free parking on Saturday)

SPECIAL THANKS FOR SPONSORING & HOSTING THIS EVENT!

Knobbe Martens Building, 2040 Main St., Irvine 92614, Knobbe Conference Center on the second floor. For Directions and Maps see the KMOB web site at http://www.kmob.com/offices_irvine_map.htm#map. The building entrance and parking structure are on the back side of the building. Follow signs to the 2040 entrance (there is no parking on Main St.). For GPS or Google Map junkies, the GPS coordinates are 33.682383, -117.852565.

Description: SuperConnectivity™ - Getting Order-of-Magnitude Improvements with Advanced-Management Techniques offers a very different advanced management skills set to optimize performance and help managers and employees alike achieve individual and organizational goals. Rather than the usual improvement targets of 5, 10, or 20%, advanced-management techniques look for order-of-magnitude, breakthrough improvements. The four advanced-management tools are based on Dr. Ken Blanchard's developmental matching model; Dr. Childre's intuitive, Heartmath influenced perceptive introspection; Dr. Kahili King's Native American self-mastery; and Dr. Gary Chapman's selective and directive language approach. The goal of the presentation is to arm us with a set of symbiotic, advanced-management tools and the knowledge of how to use them. This knowledge will produce effective management, lasting solutions, confidence, wisdom, peace, order-of-magnitude results, and fun. Developmental matching identifies and matches employee development levels to management leadership styles. Perceptive introspection shows us how our four levels of conscious and unconscious behavior influences our performance. Native American self-mastery describes the seven ancient principles at work within our universe. Knowing how to assimilate and use these principles will help us become better managers and avoid the dire mistakes of those who have lived before us, maximizing success. SuperConnectivity defines the five connective languages we use to communicate and the single best language we respond to. This management approach shows us how to identify the preferred connective language for every employee, co-worker, and manager we work with, gain tremendous influence using it, and optimally manage. We are all managers. The intent of SuperConnectivity - Getting Order-of-Magnitude Improvements with Advanced Management Techniques is to arm us with four, complementary advanced-management tools and show us how to use them. This knowledge will produce more effective management.

IEEE's OC Entrepreneurs' Network (OCEN) & IEEE's OC Solid-State Circuits Society (SSCS) Present:

Summary of SBIR/STTR Program & Recent Changes Signed Into Law Small Business Innovation Research (SBIR) & Small Business Technology Transfer (Sttr) Programs

Speaker: Dennis Wonica, Ph.D., Laserlight Networks, Inc.

Abstract: An overview of the Small Business Innovation Research (SBIR) & Small Business Technology Transfer (STTR) Programs will be presented first. This will be useful for those unfamiliar with this source of New Product Development funding.

OVERVIEW OF PROGRAM:

- Phases, Funding Amounts, Schedule
- Agencies, Total Dollar Amounts, Grants vs. Contracts
- Statistics: Win percentages, size of entities
- Sources of funding vs. SBIR Program
- Concerns including IP theft, subcontracting and other arrangements, working with Universities & Federal labs on STTR
- Main advantages to an SBIR award

Following will be a discussion of the Congressional changes as of January 2012, how they affect your strategic planning efforts, and why commercialization of your SBIR technology is key to your success.

HOW NEW CHANGES WILL AFFECT YOU:

- You are destined to failure without a strategic Commercialization Plan
- Commercialization success according to Government
- Real world aspects needed to commercialize
- A Model for an advanced tech small business

Day: Saturday, March 24, 2012

Fee: Free for all the IEEE members, as well as those who are exploring to join IEEE, SSCS & OCEN!

Time: 10:00 a.m. – 12:30 p.m.

Space is limited, please RSVP:

IEEE.OC.SSCS.RSVP@Gmail.com

Send questions to Farhad Mafie, IEEE-OC SSCS/OCEN Chairman: FarhadMafie@Gmail.com

Speaker Biography: Dr. Dennis Wonica's involvement with the SBIR Program goes back to the late 1980s as a SETA to the USAF and USA to help them write solicitation

statements then appraise and monitor awardees for these agencies. Later he down selected among proposers and monitored a contract to an awardee while at JPL. Still later he wrote winning SBIR proposals for his own companies. In February 2010 he testified to the Government Accountability Office (GAO)/Denver regarding SBIR Commercialization problems of small advanced tech firms working in the Space Sector. A few months later he organized and moderated a panel discussion by seven small advanced tech firms on SBIR Commercialization at Knobbe-Martens Orange County sponsored by AIAA/Enterprise Program and IEEE. He wrote a position statement for IEEE/USA to use to defend the SBIR Program against certain changes proposed by Congress in December of 2010. In September 2011 he met with Congresswoman Janice Hahn (Small Business Committee), provided her written recommendations, and suggested to keep the Program on Continuing Resolution at that time instead of terminating it, pending further Congressional review. He advises Small Business Concerns on commercializing their advanced technologies in general, including using the SBIR/STTR Programs for funding new product development, as well how to pursue Federal Government contracts and grants.

Address & Information: Knobbe Martens, 2040 Main St., Irvine, CA. (Free parking on Saturday)

SPECIAL THANKS FOR SPONSORING & HOSTING THIS EVENT!

Knobbe Martens Building, 2040 Main St., Irvine 92614, Knobbe Conference Center on the second floor. For Directions and Maps see the KMOB web site at http://www.kmob.com/offices_irvine_map.htm#map. The building entrance and parking structure are on the back side of the building. Follow signs to the 2040 entrance (there is no parking on Main St.). For GPS or Google Map junkies, the GPS coordinates are 33.682383, -117.852565.

EMBS and CS/GameSIG Introducing the Intercollegiate Game Competition



Location:

Chapman University, Folino Theater, Saturday, April 28.

Filtering:

Entrants will be filtered down to 10 (plus or minus one or two, at the discretion of the GameSIG Chair), according to this process:

1. Teams enter the competition by sending an email before 11:59pm on Saturday, April 14 (*note change of date*) which contains the URL of YouTube video:
 1. The video should be 3 to 5 minutes long.
 2. The video should show game play of the game.
 3. The video and/or YouTube page should make clear the name of the game.
 4. Video introduction, narration, and “talking heads” are permitted, but should not be at the expense of demonstrating game play.
 5. The video must not be modified after the email is sent
2. The email must also have attached a one page PDF document which provides an overview of the game. This one-pager should include the following. Do not use any font smaller than 9 point.
 1. The name of the game.
 2. A one or two sentence “elevator pitch” description of the game.
 3. The names and university affiliations of the people who made the game.
 4. Target platform and audience.
 5. One-paragraph gameplay summary.
 6. List of key or interesting features.
 7. One or more examples of game art.

3. After games have been submitted, the ExCom members will filter the games down to 10.
4. The Chair will send each member a list of the YouTube URLs and the one-pagers.
5. Each member will vote for 10 games. Every vote is equal. The members will email their votes (a list of 10 games) to the Chair before 5:00pm on Tuesday, April 17.
6. The Chair will tally the votes and announce the 10 (plus or minus) finalists. The Chair will break ties when needed, with a bias towards including games from a wide range of Universities. (Example: Suppose there are 8 voting ExCom members and 20 games submitted. Suppose games A, B, and C get 8 votes; games D, E, and F get 7 votes; games G, H, I, J, K, L, and M get 6 votes; the remaining games each get 5 or fewer votes. The finalists will be games A, B, C, D, E, F, and four (or possibly five or six) of games G, H, I, J, K, L, and M as decided by the Chair.)
7. Finalists will be announced on the web site shortly after April 17. YouTube video links and one-pager links will also be available on the web site.

Note:

for more information about this event and also the contact information for the email address please visit the following page: “<http://gamesig.org/showcase>”

Prof. Keyue Smedley



Keyue Smedley

Prof. Keyue Smedley was recognized for her work in high performance switching power converters. She invented the one-cycle control (OCC) method for switching power converters, used today in high-power rectification, active harmonic filtering, and VAR generation essential for modernizing the power grid, as well as in professional audio amplifiers. Smedley, a professor of electrical engineering and computer science at the University of California, Irvine, is director of the university's Power Electronics Laboratory. Before Smedley's invention, the control of switching-mode converters was more complex. She took advantage of the nonlinear feature of a switching circuit to develop more stable, faster, and accurate converters. The complexity of three-phase power converters was reduced about tenfold and the size and weight of the amplifiers nearly sevenfold, while performance and efficiency were substantially improved. Things also got quieter. "The noise you hear in a switching mode amplifier is not enjoyable and OCC had the speed to take that noise out," she says. "It was a perfect marriage when OCC met the switching circuit." Smedley's work also led to new applications in transportation, power electronics, renewable energy generation, and the dynamic control of power grids.

<http://gram.eng.uci.edu/~smedley/pel.html>

Dr. Smedley is the Director of the Power Electronics Laboratory at University of California, Irvine. It is a modern research facility. It is equipped with the state-of-the-art instrumentation for design, simulation, layout, prototyping, and testing of switching/analog circuits. The research in the Power Electronics Laboratory at UCI involves modeling, control, topologies, and integration of switching converters, inverters, class-D power amplifiers, soft switching techniques, single-phase and three-phase power factor correction methods, single phase and three-phase active power filters, power conversion for alternative energy sources, etc.

Our research goal is to find simple, elegant, and effective solutions to fundamental and persistent engineering problems, to generalize our theoretical findings, and to provide engineering design guidelines to industry. During this process, we guide our students on the path of becoming authorities in the field of Power Electronics.

UCI Power Electronics Laboratory enjoys world wide reputation for its innovative research, unique industrial applications, and high quality graduate students.

Advertising Section in the Newsletter

Our Newsletter now includes an advertising section. For details on how to place your ad please send us e-mail at: info.at.nanomems-research.com

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



IEEE Orange County Section Reports

Welcome New Volunteers

- Crampton Lin
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- Gan Diwakar
- Mishra Satya
- Nguyen Ky
- O'Donnel Ciaran
- Pattni Anil
- Soni Mahesh
- TRUONG tim
- WU Tao
- Yu Kai-Bor

IEEE Electron Devices Society and the IEEE Reliability Society to Sponsor Reliability Physics Conference

The IEEE EDS and Reliability societies are will co-sponsor the conference entitled "2012 IEEE International Reliability Physics Symposium (IRPS)". This conference will be held April 15-19, 2012 in Garden Grove, California, USA.

For further information, please contact:

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or Conference Services Dept., at IEEE Operations Center at +1 732 562 3878

IEEE GLOBECOM 2012 The Magic of Global Connectivity

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.

Volunteers Needed:

At this time, we are specifically looking for two volunteers to serve as Local Facilities Chair and as Student Affairs Coordinator.

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