



IEEE BUENAVENTURA SECTION

October 2012 Newsletter

Thu 4 Oct	All Public	2012 Energy Efficiency Symposium Keynote by Dr. Rajit Gadh, UCLA SMERC 3pm-9pm Westlake Village Inn →TICKETS NOW ON SALE ← http://ees.ieee-bv.org/registration.htm
Tue 9 Oct	ComSoc	User Equipment for LTE: Design Principles and Performance Requirements <i>Dr. David Pehlke</i> 6:30 – dinner, networking, 7pm presentation Skyworks, Hillcrest & Lawrence Drive, Newbury Park CA 91320 Register: https://meetings.vtools.ieee.org/meeting_view/list_meeting/14509
Wed 17 Oct	AESS EDCAS LMAG MTTS	Mars Science Laboratory – Curiosity Rover: The Road to a Successful Landing on Mars Mr. Fernando Abilleira, JPL/NASA/CalTech 6:30 – pizza, networking; 7pm presentation ** VENUE CHANGE ** Richter Auditorium, Cal Lutheran U., 60 W. Olsen Rd, Thousand Oaks 91360 Info/RSVP: chair@aes.ieee-bv.org
Wed 24 Oct	EMBS	Learning from Biology: Viral-Templated Materials and Devices <i>Elaine D. Haberer, PhD UC Riverside</i> 6pm dinner, 7pm presentation Richter Hall, Ahmanson Sci. Building, California Lutheran University
Mon 29 Oct	Section	Operating Committee Meeting
Oct.	Computer PES RAS	No local events planned this month. Be sure to see the advertised positions on the web too.

<http://ieee-bv.org/>

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The IEEE

Membership News

New Members

Please join us in welcoming our new Section members:

- Victoria Hatfield
- Gary Parks
- George Randel
- Hugo Anderson



Members can find and make contacts by [searching MemberNet](#) at the [IEEE Member Portal](#).

New Members: please be sure to update and share your information at the IEEE Member Portal and set up your IEEE email alias. Please also introduce yourselves at meetings; networking starts here in the IEEE.

--- Karl Geiger, Section Chair

Verify Your Membership Info

Please help us keep your contact info up to date. If you have not already done so, go to

<http://verify.ieee-bv.org/>

Enter your 8-digit IEEE members id (include leading zeroes) to view your on-file email and other information. If this information is incorrect, please update it using the IEEE membership services portal.

Please Change Your IEEE Password

IEEE headquarters reports a data breach exposing 100,000 IEEE member accounts with their passwords.

The data breach is particularly harmful because last Spring the IEEE began using member's email addresses as their log-ins to IEEE sites and services. Accounts at any other site or service, e.g. Gmail, that uses this email address and password to log-on are also at risk. IEEE will contact compromised individuals. **As a precaution, however, all members should change IEEE web account passwords now.**

See <http://www.ieee-bv.org/2012/09/change-your-ieee-org-password/> for more information and links to change passwords.

Job Opportunities



Biochemist

Alfred Mann Foundation (www.aemf.org) in Valencia is searching for a PhD level chemists for a six month contract. Proof-of-Concept for a very exciting project. This is a premier medical device research organization!

Contact
Pat Jacobs
805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

Sr. System Integration / Test Engineer

Alfred Mann Foundation (www.aemf.org) in Valencia is searching for an EE with both hardware and software. 5+ years of system test related experience with advanced knowledge of medical devices.

Contact
Pat Jacobs
805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

PRINCIPAL SYSTEMS ENGINEER

Alfred Mann Foundation (www.aemf.org) in Valencia is searching for an EE or Physics major with knowledge & experience in FCC frequency regulation and FDA experience. Simulate, analyze and build electronic circuits for implantable medical devices, lead system design approach & architecture.

Contact
Pat Jacobs
805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

Section News

Nominations for Section Officers

Buenaventura Section holds an officer election **Nov 2012**. Elected positions are

- Chair
- Secretary
- Treasurer
- Vice Chair

Nominations for these positions are now open. **Nominees must be IEEE Buenaventura Section members in good standing and of Graduate Student Grade or higher.** See the [qualifications rules at the IEEE home site](#). To nominate someone or yourself, please send mail to election@ieee-bv.org.

-- Karl Geiger, Section Chair

Product Safety/EM Compatibility Joint Chapter Forming



Buenaventura Section is seeking to start a joint chapter of the Product Safety Engineering (PSE) and the Electromagnetic Compatibility (EMC) Societies. IEEE members interested in forming this chapter please contact Mike Nicholls, Advance Motion Controls, at mnicholls@a-m-c.com or me at chair@ieee-bv.org.

-- Karl Geiger, Section Chair

Have News or Announcements?

If you have an event or news, IEEE or otherwise, that is of interest to IEEE members please send it to Zak Cohen, newsletter@ieee-bv.org, so it can appear in the newsletter and the website.

Details about submitting news articles, how to subscribe and unsubscribe are at <http://www.ieee-bv.org/news/>.

If you wish to write for the newsletter or website, please contact Zak or a Chapter chair.

--Zak Cohen, Section Secretary

SYSTEMS ENGINEERS – PRINCIPAL & SENIOR FOR RISK MANAGEMENT

Premier Ventura County company – must have medical device experience. Must have industry experience with Fault Tree Analysis or similar, ISO14971, ISO62304. Risk management plans, files, hazard analysis, user and design risk assessments. Integral to the device development process.

Contact
Pat Jacobs
805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

QUALITY ENGINEER

Pasadena medical device company – 3 to 5 years experience in process/testing. Class II or III device experience.

Contact
Pat Jacobs
805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

REGULATORY PROJECT MANAGER

Pasadena medical device company – Must have experience writing and submitting CE Mark and/or 510K.

Contact
Pat Jacobs
805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

Mechanical and Electrical Engineers

Pasadena medical device company searching for EE with 3-5 yrs experience. Need analog and digital circuit design experience. Able to write basic code for device control and Labview. Mechanical engineer to develop tooling.

Contact
Pat Jacobs
805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

Energy Efficiency Symposium 2012

THURSDAY 4 OCTOBER – Mark your calendars for the 2nd Annual **Energy Efficiency Symposium**. For 2012 the keynote speaker is Dr. Rajit Gadh, Director of UCLA's Smartgrid Energy Research Center (SMERC).



Sponsors include Johanson Technology, SoCalEdison, GreenTech Motors, Sauer Energy, Maverick Angels Investment Group, SolarWorld, Quality Logic, Titan LED, and the Clean Business Forum.

Tickets are now on sale; IEEE members \$20, General Admission \$25, Students \$15. Please see the conference website at

<http://ees.ieee-bv.org/>

If you, your company, or someone you know is interested in sponsoring, exhibiting, or speaking, please contact Bridge Carney, bcarney@ieee-bv.org. Space is limited.

-- Bridge Carney, Vice Chair



2012 ENERGY EFFICIENCY SYMPOSIUM EXHIBITORS

**** LAST FEW DAYS ****

A reminder, that we need YOUR help...If work for or know a company involved in any way energy efficiency and might want to be an exhibitor in our upcoming annual Energy Efficiency Symposium please let Bridge Carney know at bcarney@ieee-bv.org

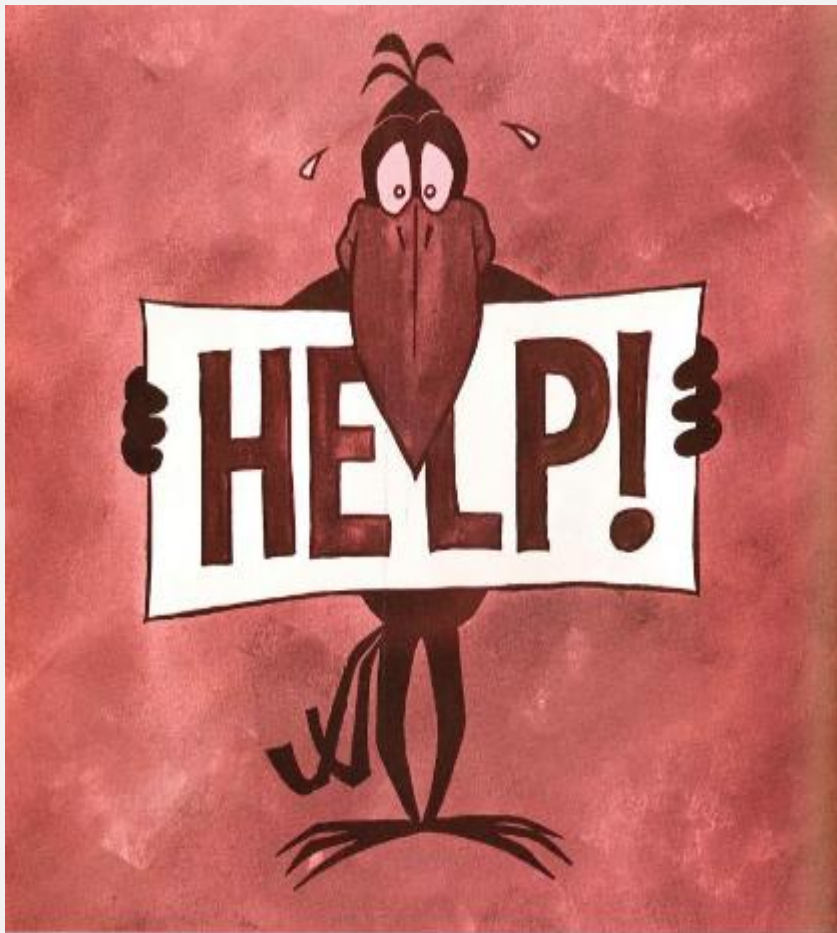
EES EXHIBITOR REGISTRATION

...is now online at

<http://ees.ieee-bv.org/registration.htm>

or

<http://2012-ieee-bv-ees-exhibitors.eventbrite.com/>



...me document Buenaventura Section history.

If you have any photos or newsletters or other information about the early years of the Section, please send to me. I will return the items to you after copying them. Thank you.

Doug Askegard, BV Section Historian
dougaskegard@ieee.org

*I borrowed a drawing of my friend, the AOC Crow, as an attention-getter for this message.

Looking for Academic, Scientific, or Engineering Talent?

Advertise with the IEEE Buenaventura Section

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and appear in both newsletter and online.

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Section.

Contact newsletter@ieee-bv.org or see our [Ad
Placement information](#) to advertise or sponsor
the Section.



Section Events



User Equipment for LTE: Design Principles and Performance Requirements -- Dr. David R. Pehlke

Abstract: The number of mobile subscribers worldwide has reached 4.2 billion, or 59% of the planet's population. As the emergence of LTE as a technology spreads to address the large and growing need for smartphones with higher data rates, handset manufacturers are faced with daunting challenges to optimize the size, cost and performance of these demanding handsets.

This talk will focus on the LTE and LTE-Advanced standards, and the specific challenges faced by the radio portion of the user equipment (UE), including requirements of output power and linearity, modulation accuracy and EVM optimization, issues related to receiver sensitivity and desensitization, and coexistence. In order to deliver designs to the specific requirements of LTE and LTE-A, new technologies and architectures are being introduced and will be discussed for their performance trade-offs.

Biography: David R. Pehlke is currently Director of Systems Engineering at Skyworks, Inc (Feb 2012). He received his S.B.E.E. in Electrical Engineering from M.I.T. , and M.S.E and Ph.D. in Solid-State Device Physics from the University of Michigan. Dr. Pehlke joined the Rockwell Science Center in 1994, where he was involved initially in the application of III-V device technology toward microwave and millimeterwave circuits and systems, as well as the development of CMOS technology for commercial wireless application. There, he managed the Wireless Technology Group and was involved in CMOS RF process technology and model library development, application of CMOS to building blocks for 5GHz radio, SAW filter technologies, and integrated antennas, all for low power radio applications.



He joined Ericsson in 1999 and developed and delivered the first E-GPRS polar modulated transmitter technology to market, as chip lead for the AM modulator of that architecture. He then joined Silicon Laboratories as part of the CMOS PA development effort, and led developments for the RF subsystem of the next generation WCDMA/E-GPRS platform as the SiLabs Wireless Division transformed into ST-Ericsson. He is now with Skyworks leading efforts in System architecture and specification to promote emerging solutions for the front-ends of cellular handsets.

Dr. Pehlke has over 22 publications, a book chapter, has taught with the MEAD shortcourse lecture series on various topics related to Power Amplifier design and linearization, and holds 28 patents filed with more pending.

Date and Time: Tuesday, Oct 9th, 2012

Location: Skyworks, Intersection of West Hillcrest Drive and Lawrence Drive, Newbury Park, CA 91320 (not the main building, please use link below to green arrow that pinpoints building)

<http://maps.google.com/maps?q=34.187542,-118.930994&num=1&t=h&vpsrc=0&ie=UTF8&z=18&iwloc=A>

Agenda: 6:30 p.m. Dinner, & Networking

7:00 p.m. Meeting & Presentation

RSVP Requested: https://meetings.vtools.ieee.org/meeting_view/list_meeting/14509



MEETING NOTICE : Buenaventura AESS/MTT-S/LMAG/EDCAS Chapters

Date and Time: Wednesday, October 17th, 2012, 6:30PM

Location : CLU, Richter Auditorium

100 Ahmanson Science Building

60 West Olson Road, Thousand Oaks, CA

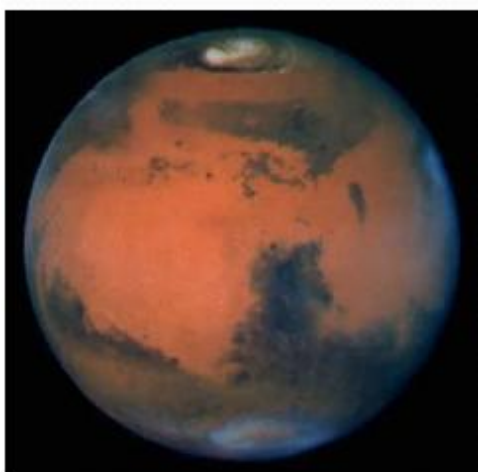
Agenda: 6:30PM Reception & Networking

(Free Pizza & Soda will be served)

7PM Presentation

Presenter : Mr. Fernando Abilleira

JPL/NASA/Caltech



Mars Science Laboratory – Curiosity Rover: The Road to a Successful Landing on Mars

Abstract:

The Mars Science Laboratory (MSL) mission launched on an Atlas V 541 from Cape Canaveral in Florida on November 26th, 2011 and successfully landed the Curiosity rover inside Gale Crater during the night of August 5th, 2012. After flying more than 550 million km, MSL entered the Martian atmosphere only ~900 m away from the optimal entry interface point and landed ~431 s later less than ~2.4 km away from its target. This seminar highlights the major achievements of NASA's Mars Exploration Program since Mariner 4 as a preamble to describing some of the major challenges the MSL Project faced on the road to the successful delivery of the most complex machine NASA has ever sent to another planet. The talk puts special emphasis on the technical details regarding Launch, Cruise, Approach, Entry, Descent, and Landing (EDL), and provides a general overview of the scientific objectives and instrumentation on board Curiosity. Some of the recently released imagery acquired by Curiosity will also be shown.

Biography:

Fernando Abilleira received his B.S. and M.S. degrees in Aerospace Engineering from Parks College of Saint Louis University in 1999 and 2001 respectively. He started his professional career as a contractor at NASA Goddard Space Flight Center. Shortly after, he joined the NASA Jet Propulsion Laboratory located in Pasadena, CA where he works as a Trajectory Analyst and Mission Design Engineer for the Mars Exploration Program Office. He served as the Trajectory Lead of the Mars Science Laboratory (MSL) Mission Design & Navigation team during Launch, Cruise, Approach, and Surface operations. MSL successfully delivered the Curiosity Rover to Mars on August 2012. He has published several papers in the areas of Astro-dynamics, Orbital Mechanics and Trajectory Optimization. Fernando makes his home in Simi Valley, CA with his wife Sarah and their sons Owen, Ethan, and Logan.

Abstract

Driven by scaling requirements and the pursuit of novel material properties, nanotechnology has advanced rapidly. Given the lack of suitable man-made tools for precise nanoscale assembly, many researchers have looked to biology for inspiration. The natural world uses biomolecules such as peptides and proteins which have nanoscale characteristic lengths, considerable chemical diversity, and molecular recognition capabilities to expertly direct the assembly of inorganic materials. The size, shape, morphology, topological organization, and crystal structure of an inorganic material can all be dictated by biomolecules during in vivo assembly. By understanding and harnessing the capabilities of Nature, this extraordinary nanoscale precision can be used to build technological materials and devices which are not possible with conventional chemical synthesis or microfabrication approaches alone. In our ongoing work, peptides binding technologically significant materials have been integrated into the structural proteins of a filamentous virus. This has allowed the realization of unique materials and device geometries, as well as the opportunity for enhanced performance, functionality, and/or green or low cost manufacturing.

Elaine D. Haberer, University of California, Riverside



Elaine D. Haberer is an Assistant Professor in the Department of Electrical Engineering at the University of California, Riverside. She is also a core faculty member in the Materials Science and Engineering Program. She received her Ph.D. in Materials from UC Santa Barbara. Prior to joining the faculty at UC Riverside, she was a Postdoctoral Fellow at the California NanoSystems Institute on the UC Santa Barbara campus and a visiting researcher at MIT. Prof. Haberer's research interests include bio-templated materials for electronic, optoelectronic, and energy applications; nano-structured hybrid materials; and novel top-down and bottom-up assembly techniques.

Dinner will be held in the Ahmanson Science Building. Dinner begins at 6 pm and the presentation at 7 pm in the Ahmanson Science Building.

As always, meetings are held at California Lutheran University. Dinner will be held at 100 Ahmanson Science Building at 60 West Olson Road, Thousand Oaks. We offer a sit-down buffet-style dinner for \$10 and hope that you will join us for networking. Looking forward to seeing you

Please note that the parking situation at California Lutheran University (CLU) has recently changed. Visitor parking is no longer available without a permit before 7 p.m. on [streets shown in red on the map](#). Please Park in "G" lots. If you would like a one-evening on-street parking permit (readily available at no cost), or desire assistance walking to / from the Ahmanson Science Center, ask at the CLU Welcome Center or call CLU Public Safety at 805-392-3208. For more information, please see our [chapter web site](#). There is a [link to parking permits](#).

Neighboring Section and Technical Society Events

IEEE-HKN PRESENTS



THE ENGINEERING ESSENTIALS WORKSHOP SERIES



10/06/2012 Jacaranda Hall (JD 2204-2203)

- Introduction to MATLAB: 9:30am–12:00pm (JD 2203)
1:00pm –3:30pm (JD 2203)
- Introduction to PSpice: 9:30am–12:00pm (JD 2204)
1:00pm–03:30pm (JD 2204)

Come enjoy a beginner's course on these two vital tools for your engineering career. These free workshops are offered to help give you a leg up on your education, while providing you with an opportunity to network with other engineering students and professionals. Open to students from all disciplines. Please register early to reserve your spot! Lunch will be served between 12 pm and 1:30 pm.

Please register using the following link and checking in will be 30 minutes before session begins.

<http://beginner-f2012-workshop.eventbrite.com/>




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San Fernando Valley Section



CLASTECH 2012

Antenna and Microwave Talks

Mark your calendar for Friday, October 12, 2012, from 8:30 AM to 3:30 PM, for the 6th annual CLASTECH Meeting. The format will be the same as the previous ones, with engaging talks, table top exhibits, and good food, for \$30 onsite, or \$15 preregistration.

Early registration closes on Oct. 8. To insure that you get lunch, register today at:

<http://clastech2012.eventbrite.com>

For meeting flyer go to

home.earthlink.net/~clastech/clastech.pdf

Microwave Talks

- “High Linearity, High Efficiency Ka-Band GaN Power Amplifier”, by Paul Blount, Custom MMIC
- “Active Integrated Circuits for Terahertz Communication” by Ingmar Kallfass, Karlsruher Institut für Technologie (KIT)
- “RFIC for Microwave Applications (TBD)”, by Prof. Gabriel Rebeiz, UCSD
- “Implantable Wireless Medical Devices and Systems” by J.C. Chiao, Univ. of Texas at Arlington
- “Commercial Applications for RF MEMS” by Stepan Lucyszyn, Imperial College London

Antenna talks

- “Detectors, and Sources for Terahertz Science and Technology”, by Dr. Goutam Chattopadhyay, JPL
- “Development of Compact High Performance Antenna Feeds for Space Application”, by Dr. Clency Lee-Yow, CMI
- “Recent Advances in Leaky-Wave Antennas”, by Dr. David Jackson, Univ. of Houston
- “Low-Profile High-Efficiency Planar Antennas for Aeronautical, Mobile, and Fixed SATCOM Applications” by William Milroy, Chairman and CTO, ThinKom Solutions, Inc.
- “Modeling the F-16 Phased Array” by Dane Thompson, Ansys

Contact Charlie Jackson, Chair, IEEE Coastal LA Section, c.jackson@ieee.org for more information.



Buenaventura Section and Chapter Info

<u>Section Office 2012</u>	<u>Name</u>	<u>E-Mail</u>
Chair	Karl Geiger	karl@ieee-bv-cs.org
Vice-Chair	Bridgeman Carney	bcarney@ieee-bv.org
Treasurer	Albert Wolfkiel	awolfkiel@ieee-bv.org
Secretary	Zak Cohen	zcohen@ieee.org
Programs and Events	Ross Kocen	events@ieee-bv.org
Awards Chair	Christian Ziegler	awards@ieee-bv.org
PACE Events Chair		
Historian	Doug Askegard	dougaskegard@ieee.org
Past Chair	Steve Johnson	sfjohnso@ieee.org
Sr. Representative, LA Council	Bridgeman Carney	bcarney@ieee-bv.org
Jr. Representative, LA Council	Momin Quddus	moming7@yahoo.com
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Newsletter	Zak Cohen Karl Geiger	newsletter@ieee-bv.org

<u>Chapter</u>	<u>2012 Chair</u>	<u>E-Mail</u>
Aerospace	Momin Quddus	moming7@yahoo.com
Communications	Victor Lin	Victor.S.Lin@aero.org
Computer	Craig Reinhart	reinhart@callutheran.edu
Electron Dev./Circuits and Systems	Sunil Pai	chair@edcas.ieee-bv.org
Engineering in Medicine and Biology	Abigail Corrin	chair@embs.ieee-bv.org
Life Members Affinity Group	Jerry Knotts	chair@lmag.ieee-bv.org
Microwave Technology and Techniques	Tom Campbell	chair@mtts.ieee-bv.org
Power and Energy	Bridge Carney	bcarney@ieee-bv.org
Robotics	Bob Rumer	rrumer@callutheran.edu

Be sure to check the Section's websites for the latest updates, meeting flyers, and newsletters. Some event details may change. Sites:

<http://www.ieee-bv.org/>

<http://comsoc.ieee-bv.org/>

<http://www.ieee-bv-cs.org/>

<http://www.ieee-bv-embs.org/>

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