JANUARY 2014 NEWSLETTER

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## EVENTS HIGHLIGHTS!

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<th>Date</th>
<th>Event</th>
<th>Details</th>
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<tr>
<td>Mon 6 Jan.</td>
<td>OpCom</td>
<td><strong>Operating Committee Meeting</strong>&lt;br&gt;6:30 pm&lt;br&gt;China Buffet, Thousand Oaks</td>
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<tr>
<td>Wed 15 Jan.</td>
<td>MTT-S/ AESS/EDC/ LMAG</td>
<td><strong>Buoyant Rover for Under-Ice Exploration</strong>&lt;br&gt;Presenter: Daniel F. Berisford, Jet Propulsion Laboratory&lt;br&gt;Date and Time: Wednesday, January 15th, 2014 (6:30PM)&lt;br&gt;Location: Ciao Wireless, 4000 Via Pescador, Camarillo, CA 93012&lt;br&gt;Agenda: 6:30PM Reception &amp; Networking; 7 PM Presentation</td>
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<tr>
<td>Sat 18 Jan.</td>
<td>BV Officer Training</td>
<td><strong>BV Officer Training</strong>&lt;br&gt;Newbury Park, 10:00 AM – 1:00 PM&lt;br&gt;John Wright will present training for BV section.&lt;br&gt;Open to All IEEE members, refreshments will be provided.&lt;br&gt;Please RSVP to <a href="mailto:j.wright@ieee.org">j.wright@ieee.org</a></td>
</tr>
<tr>
<td>Mon. 27th Jan.</td>
<td>IEEE-BV Section Award Banquet</td>
<td><strong>IEEE-BV Section Award Banquet</strong>&lt;br&gt;Venue: Los Robles Greens</td>
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<tr>
<td>Wed 29 Jan.</td>
<td>EMC</td>
<td><strong>Using Current Probes for Laboratory EMC measurements</strong>&lt;br&gt;By David Fischer&lt;br&gt;Date &amp; Time: January 29 2014 6:00PM&lt;br&gt;Location: Thousand Oaks Library, Newbury Park Branch, 2231 Borchard Rd Newbury Park, CA 91320</td>
</tr>
<tr>
<td>Wed 29 Jan.</td>
<td>EMB</td>
<td><strong>Crowdfunding for Medical Solutions</strong> – Nathalie Gosset, USC&lt;br&gt;Location: CLU, 60 West Olson Road, Thousand Oaks&lt;br&gt;Dinner: Available for $10 by 6 P.M.&lt;br&gt;Lecture: Starts at 7 P.M.&lt;br&gt;Contact: Steve Johnson, <a href="mailto:sfjohnso@ieee.org">sfjohnso@ieee.org</a></td>
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<td></td>
<td></td>
<td>And more!</td>
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Membership News

A Very Happy New Year 2014 to Everyone!

Please join me in welcoming our newest members to the IEEE:

- Iradj Shahriary
- John Maxwell
- Michael Laverty
- Sami Alharthi
- Sandra Suttiratana
- Sarah Suttiratana
- Sultan Alenezi
- Zoe Hay

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.

--- Bridge Carney
IEEE Buenaventura Section Chair 2013

Section News

Computer Society

The Computer Society Chapter is seeking new volunteers for officers and presentations. Please contact Craig Reinhart, CS Chapter Chair to volunteer or to speak at an upcoming meeting.

-- Craig Reinhart
CS Chair
craig@ieee-bv-cs.org
JOB OPPORTUNITIES

Contact Pat Jacobs -- 805-579-0630 pat.jacobs@advancedpersonnelprofiles.com

Electrical Engineer, Alfred Mann Foundation (www.aemf.org), Valencia
BSEE, 3-5 years experience with analog and digital design and development of prototypes. Inductive power & communication experience a plus.

Quality Engineer at Second Sight, Sylmar
Two position for experienced Quality Engineers with medical device experience. One position focused on quality systems and the other for a CAPA and EtQ Administrator.

Field Clinical, Clinial Research Associate & Clinical Project Manager
Job openings at Alfred Mann Foundation and Second Sight. Must have device experience.

Interns: Mechanical Engineer & Industrial Design at Second Sight, Sylmar
Must be able to work a minimum of 16 hours per week through May 2014. These are paid internships.

Contact: Abby Hairabedian , 805-388-1711 ext. 332 ahairabedian@dex.com

Senior Electrical Engineer
Camarillo company is looking for a Sr. Electrical Engineer to design/develop test processes for electronic assemblies such as wind turbine control systems and computer networks used in the medical equipment industry. 10+ years experience. Knowledge of high-power RF, Visual Basic, Lab View. More info at dex.com

Engineering Technician
Camarillo company looking for Technician to build electronic test setups for electronics systems, assemblies, and circuit boards in wind energy and healthcare devices. 5+ years electronic troubleshooting, testing and repairs at the component level. Electro-mechanical experience. Ability to read mechanical and electrical drawings. Good communication skills. More info at dex.com

Looking for Academic, Scientific, or Engineering Talent?
Advertise with the IEEE Buenaventura Section Placement ads are $25/month and appear in both newsletter and online. Sponsorships available for website and Section. Contact newsletter@ieee-bv.org or see our Ad Placement information to advertise or sponsor the Section.
Buoyant Rover for Under-Ice Exploration

Abstract: The Buoyant Rover for Under-Ice Exploration (BRUIE) is an experimental two-wheeled robot capable of roving in two-dimensional space in the under-ice environment. The rover has positive buoyancy, allowing it to stick to the ice underside and operate using similar control principles as those used for traditional above-ground rovers. The rover is an early-stage technology development/demonstration effort to provide a simple and inexpensive alternative to "swimming" submersibles. Recently added capability allows the rover to operate without a tether, communicating with a nearby above-ice ground station, which can relay data to a remote command center for remote operation. Additional upgrades include a dissolved methane sensor and improved capability for escape from entrapment in soft ice pockets. The system has been tested in frozen thermokarst lakes in the tundra region near Barrow, Alaska, and data from onboard video and methane sensors gives scientific insight to the formation and distribution of trapped methane pockets in the lake ice.

Bio: Daniel F. Berisford received the B.S. degree in aerospace engineering from the Georgia Institute of Technology in 2002, and the M.S. and PhD degrees in aerospace engineering from The University of Texas at Austin in 2004 and 2009. His graduate research included the development of optical and thermal diagnostic instruments for electromagnetic railguns and plasma thrusters. Dr. Berisford is currently a Technologist at the Jet Propulsion Laboratory in Pasadena, CA, where he performs research and development work for advanced thermal technologies and instruments for the study of snow and ice. He manages the Technology for Energy and Extreme Environments Lab, which specializes in rapid experiment development to address fundamental engineering challenges of emerging (low TRL) technology in thermal, fluid, and robotic systems.
Presents

OFFICER TRAINING

Newbury Park Library, 1/18/14, 10:00AM - 1:00PM

John Wright will present the Officer Training for the Buenaventura Section. John has conducted similar training sessions for the BV Section, Santa Clara Valley Section, Region 6 and was the Core Track Chair for Sections Congress in Tampa, Florida.

Leading the local activities is much easier once you know the ropes.

Whether you are an experienced officer or just considering helping out, there will be value in this training. This meeting is open to any IEEE member and refreshments will be provided.

Please RSVP to j.wright@ieee.org so we know how many people to prepare for.
IEEE Buena Ventura Section

Monday, January 27th, 2014

Year End Banquet & Awards Ceremony

This year we are celebrating our section's 50th Anniversary and taking the time to appreciate "Why Engineers Do Amazing Things"

Venue: Los Robles Greens
299 S Moorpark Rd,
Thousand Oaks, CA 91361

Dinner: Buffet style

More Details Coming very soon!

You are cordially Invited
The IEEE Buenaventura EMC Society

is pleased to present

Using Current Probes for Laboratory EMC measurements

By David Fischer

David Fischer of Fischer Custom Communication will give a presentation on the use of current and near field probes for troubleshooting and measuring EMC levels without the use of an EMC test chamber.

Questions? Please forward them to mnicholls@a-m-c.com.

Date & Time: January 29 2014 6:00PM
Location: Thousand Oaks Library
           Newbury Park Branch
           2231 Borchard Rd
           Newbury Park, Ca 91320

Since 1971, Fischer Custom Communications, Inc. has pioneered the development of state of the art EMC equipment.

Fischer Communications specialize in electric and magnetic field sensors, generators, and instrumentation to insure that appliances, tools, and instrumentation meet FCC, FAA, Military, European and Asian regulations for electromagnetic emissions and immunity.

Fischer Communications develop application focused transient protection devices for sensitive electronic systems from lightning, EMP and HPM threats.
January 29: Crowdfunding for Medical Solutions – Nathalie Gosset, USC

Although crowd sourcing is no longer a novel concept, 2013 was the first year that crowdfunding campaigns were launched for medical devices, therapeutics, or medical research, including several just completed by the Alfred E. Mann Institute for Biomedical Engineering at USC, spearheaded by our speaker, Nathalie Gosset.

Ms. Gosset will describe the projects, including the first-ever crowdfunding campaign for a cancer drug; how crowdfunding was adapted for life science; the work that took place during the campaigns; the results; and the lessons learned during the journey. She will discuss how to fuel public interest, the obstacles that surfaced and how to address them. The talk will wrap up with key recommendations for integrating crowdfunding into product development strategy.

Nathalie Gosset is Senior Director, Marketing and Technology Innovation Evaluation, at the Alfred E. Mann Institute for Biomedical Engineering at USC. She is responsible for investigating and establishing the commercial value of the medical innovations presented to that organization. Ms. Gosset has become a sought-after keynote speaker on matters of the Future, reporting on new technologies, new job categories, or new ways of doing business.

Ms. Gosset is a member of several medical advisory and boards of directors. She holds a BSEE from ISEP (Paris, France); MS in Telecommunications (Boulder, CO); MBA (University of St. Thomas, St. Paul, MN). Ms. Gosset is an IEEE/EMBS member who received several prestigious awards for her volunteer work for the technical and biomedical global community – among them, the 2007 Career Service award for creating more than 50 EMBS chapters worldwide, and the 2009 IEEE Engineer of the Year presented by the Buenaventura Section. She is a past Chair of the Buenaventura IEEE/EMBS Chapter and the Buenaventura Section.

| Location: California Lutheran University  
60 West Olson Road, Thousand Oaks |
| Dinner: In the Atrium of the Ahmanson Science Building, available at 6 p.m. for $10 payable at the door, no RSVP needed. |
| Lecture: Nearby, at 7 p.m. Come to Ahmanson beforehand for directions. Meetings are free, open to the public |
| Parking: In general, visitor Parking is no longer permitted before 7 p.m. on Memorial Parkway and adjacent streets. However, CLU Public Safety has provided us with parking passes to download and use. |
| Contact: Steve Johnson, sfjohnso@ieee.org |
60th Annual Ventura County Science Fair

Volunteer as Judges

Science Fair Judges

Approximately 275 science, engineering, and industry professionals from throughout Ventura County volunteer their time to serve as judges for the Science Fair.

Participate as Students

Science Fair Participants

Each year thousands of Ventura County student’s, in grades 6-12, complete science research projects at their schools, and nearly 1,000 of those students earn the right to compete at the Ventura County Science Fair. Approximately 75 of our top students are invited to the State Science Fair to compete with their peers from across California where many of our past students have placed in the top three for their category and some have been awarded Project of the Year.

Schedule

Project Set-up: March 18, 2014
Project Judging: March 19, 2014
Awards: March 20, 2014

For more information, Please visit http://www.vcoe.org/sc/ScienceFair.aspx
Radio and Wireless Symposium
Presents the
2014 Industrial Forum

Tutorial Workshop on RF and Microwave Filter Design
Monday Jan. 20, 9:00-17:00
Organizer and Speaker: H. Clark Bell

This course will present design basics for passive RF and microwave filters. Included will be discussions of performance parameters, types of filter responses, estimating filter performance, characteristics of various filter technologies, specifying filters realistically to avoid surprises, and use of filter design software. Specific topics will include two-port parameters; lowpass and highpass ladders; Chebyshev filter; immittance inverters and narrow-band design; resonator Q, delay and loss, and lossy coupling; TEM bandpass filters and bandstop filters; waveguide bandpass filters; general coupled-resonator prototype; loss approximation, the elliptic function filter; realization polynomials and immittances; bandpass filters with cross couplings; dual mode filters; environmental effects on filter performance.

Registration for the Filter Tutorial Workshop
http://rww2014filter.eventbrite.com
Contact c.jackson@ieee.org for more information

The Industrial Forum includes an exhibit, Wireless Apps (similar to uApps) and special hardware demonstrations given by researchers
http://www.radiowirelessweek.org/
Device characterization is an essential process in many aspects of research, development and testing of RF and microwave devices. To the inexperienced, this might seem intimidating or even scary. In this course, we will explore various interconnected topics of device characterization that form the amplifier design flow. Topics include pulsed IV and S-parameters for compact model extraction, load pull for model validation and measurement, amplifier design and IC stability analysis, X-parameter modeling and system-level simulations.

Registration for the Device Characterization Workshop
http://rww2014device.eventbrite.com
Contact c.jackson@ieee.org for more information

The Industrial Forum will includes an Exhibit, Wireless Apps (similar to uApps) and special hardware demonstrations given by researchers
http://www.radiowirelessweek.org/
## Buenaventura Section and Chapter Info

<table>
<thead>
<tr>
<th>Section Office 2012</th>
<th>Name</th>
<th>E-Mail</th>
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<tbody>
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<td></td>
<td>Gaurav Mahajan</td>
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<tr>
<th>Chapter</th>
<th>2013 Chair</th>
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<tbody>
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</tr>
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*Also be sure to check the Section’s websites for the latest updates:*