



IEEE BUENAVENTURA SECTION

August 2013 Newsletter

Thu-Sun
1-4 Aug. All Region 6
IEEE-USA Meeting
Portland, Oregon
<http://sites.ieee.org/ieeusa2013/>

Mon.
26 Aug. OpCom
Operating Committee Meeting
6:30 pm
China Buffet, Thousand Oaks

Thu.
29 Aug. AESS
Computer ComSoc
ED/CAS
EMBS
EMC/PSES
LMAG
MTTS
RAS/IAS
PES

Electric Stove Day
*It's August.
It's hot.
And the electric stove is 154 years old.*

All Section Mixer & Get Together

6:00-9pm
Los Robles Greens Clubhouse
299 South Moorpark Road, T.O., CA 91361

Tue
10 Sep. ComSoc
The ABC's of Orthogonal Frequency Division
Multiplexing
*Dr. Bernard Sklar,
6:30-8:30pm
Skyworks*
https://meetings.vtools.ieee.org/meeting_view/list_meeting/19643

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

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The IEEE

Membership News

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-

Senior Member Elevation Clinic



Many thanks to all the Senior Members who turned out to make the July Elevation Clinics run so smoothly and conduct interviews:

- Doug Askegard
- William Au
- Cameron Bruce
- Nai-Shuo Cheng
- Cristian Cismaru
- Kenneth Clarke
- Zachary Cohen
- Mark Fisher
- Karl Geiger
- Don Hilliard
- Steve Johnson
- Atul Joshi
- Subha Kadambe
- Danilo Llanes
- Mike Markowitz
- Karl Meier
- Scott Miller
- Aleksandar Mladenovic
- Authi Narayanan
- Mike Nicholls
- James Petersen
- Charles Pitcher
- David Schwartz
- Mark White
- John Wright

The review board has the materials for all candidates and should report results soon. Best of luck to our outstanding candidates for Senior Membership.

-- Christian Ziegler
Membership Development

Job Opportunities



SR. ELECTRICAL ENGINEER

Congratulation to Second Sight (www.2-sight.com) in Sylmar who were awarded FDA approval 14 Feb 2013! SSMP in Sylmar is looking for a very experienced EE with RF and communication protocol experience. Medical device preferred.

Contact
Pat Jacobs

805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

PROCESS ENGINEER – Second Sight (www.2-sight.com) in Sylmar, CA

Mechanical Engineer with microelectronic packaging experience including die attach and wire bonding, silicone and epoxy. Experience is a regulated industry.

Contact
Pat Jacobs

805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

ASSOCIATE ELECTRICAL ENGINEER

Pasadena Medical Device Company needs 3-5 years experience in low power, mix-signal design. Prefer MCU based signal acquisition and battery life optimization experience. BSEE.

Contact
Pat Jacobs

805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

Section News

2013 Late Summer/Fall Events

We're looking forward to seeing you at our upcoming events later this Summer and into Fall. Look for

- So You Want to Be an Engineer Day at Moorpark College in September
- A special speaker event Wednesday evening, 23 October, featuring the future of motion picture technology

If you are interested in help with these events, please contact me, and please send your ideas to me at bcarney@ieee-bv.org or call me at 805-558-5097.

-- Bridge Carney
Chair, IEEE-Buenaventura 2013-

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

Jerry Knotts Receives Professional Achievement Award



IEEE-USA president Marc Apter presents the award at the 2013 Annual meeting held in Portland, Oregon, on August 3rd to Buenaventura LMAG Chair Jerry Knotts in recognition of his

Sr. Electrical Engineer at Alfred Mann Foundation

(www.aemf.org) in Valencia, CA

BS & 5+ years working on rigid & flexible PCB design. Analog & digital circuit design. Good knowledge of microcontroller, FPGA, RF and communication protocols.

Contact
Pat Jacobs

805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

Mechanical Engineer at Alfred Mann Foundation

(www.aemf.org) in Valencia, CA

Minimum 2 years experience, SolidWorks preferred. As part of the R&D team, develop and support Class III medical devices.

Contact
Pat Jacobs

805-579-0630

pat.jacobs@advancedpersonnelprofiles.com

Systems Integration Test Engineer, Alfred Mann Foundation (www.aemf.org), Valencia

3+ years of automated system testing. Experience with C/C++, Java, MATLAB and good knowledge of testing equipment. Develop test automated test system for V & V.

Contact
Pat Jacobs

805-579-0630

pat.jacobs@advancedpersonnelprofiles.com



mentoring of entrepreneurs through the California Coast Venture Forum, of which he is president. In addition to his work with the CCVF, Jerry has been an active supporter and organizer of many of our Section's events and activities for a number of years. Congratulations to Jerry on this well-deserved award.

-- Doug Askegard

Thank You and Good Luck, Karl Geiger



We are excited for our Section Secretary Karl Geiger as he immediately begins a new job at Neural ID in northern California. We express our deep appreciation for all the things he has done over the past years in his positions with IEEE Buenaventura including two years as our Section Chair and as our technical guru who has positioned BV as one of the best websites and newsletters in the

Region! I can say that Karl has also done some many more things, most of which we behind the scenes, for our Chapter that I wish him a gold plated 'Thank you' and all the best from all of us!

-- Bridge Carney

Chair, IEEE-Buenaventura 2013-

JOB SEEKERS CORNER

The IEEE Buenaventura Section (<http://www.ieee-bv.org/>) is proud to announce a new benefit to members. If you are a job-seeker, in-transition or just searching for a new opportunity, we are happy to help you advertise your skills.



Simply send two lines, including your contact information, to Pat Jacobs at pat.jacobs@advancedpersonnelprofiles.com. Pat will publish your information in our monthly newsletter at no cost to the job seeker.

If you prefer, you can advertise anonymously and simply provide your email address and the main points that detail your experience. Employers will contact you directly at the email address provided.

The newsletter is published monthly so please contact Pat by the 20th of the month.

The following IEEE members are searching for new opportunities. Please contact them directly:

Looking for Academic, Scientific, or Engineering Talent?

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Section**

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and appear in both newsletter and online.

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



Bioengineer with experience in research, development, & management. Contact: beejal@blackboxlabs.us

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Embedded Software/Firmware developer.

Implemented successful products using Assembly Language, C, C++, Shell scripts, Java, XHTML, JavaScript & Perl.

James.L.Keeler@gmail.com

B.S. in physics, strong math skills looking for a role in any scientific or technological field that utilizes mathematical and problem solving skills. Working location is flexible. Contact: (206)375-2503 gqiesber@clunet.edu

Electronics Systems/Software Test Engineer with 10 years experience. Skills include automated and manual software testing, environmental testing, Java and C++. Contact aaronpoley9@gmail.com.

Systems Administrator with 8 years experience. Windows, Linux, VMWare, Hyper-V, AWS, Powershell, Python. Seeking professional growth Ventura County. Rick@Runeq.net

Technical Ventura

As part of our outreach and education program, IEEE Buena Ventura Section publishes a monthly general interest column in a local newspaper, The VC Reporter, under the by-line "Plugged In". These articles feature local technology businesses and inform the general public about people and technologies that would not usually see in their regular news. "Plugged In" items will be reprinted in the IEEE BV Section monthly newsletter.

New Biotechnology Incubator Supports Entrepreneur-Researchers

Karl Geiger, karl@ieee-bv.org

Suppose you are a research scientist and have an idea for a new therapy or biotechnology product. You will need to prove it out and test it in order to get funding. You cannot use your workplace's facilities without endangering your intellectual property. Perhaps the lab where you teach is too busy or lacks certain equipment.

In any case, you need lab space, real lab space, and fast.

Dr. Greg Cauchon had exactly this problem in 2005 when he left Thousand Oaks biotech giant Amgen. Given the presence of Amgen and other companies he thought he would quickly find suitable lab space for his own start-up biotech, Amethyst Life Sciences (www.amethystls.com).



DNA Synthesizers at the VBC

"I didn't really expect to find labs that were as nice as those I was used to at Amgen. But I was surprised to discover just how unsuitable most of the industrial buildings in Ventura County really are," said Dr. Cauchon.

Settling into what was little more than a garage, Dr. Cauchon set to work performing analytical methods development and polymer synthesis for small companies and other organizations lacking their own labs. But the space was cramped and required a lot of labor and money to turn into a usable and safe laboratory.

"Having some space – anything, really – allowed us to grow the business and acquire the necessary lab equipment," said Dr. Cauchon. "But we were always on the lookout for better accommodations."

Then inspiration struck: if he was in a bind, how many others were in the same position? Why not create new lab space that would be suitable for Amethyst and other start-ups?

Dr. Cauchon reached out to and later joined a local angel-investors' group, the Maverick Angels (www.maverickangels.com). The group's co-founder, John Dilts, proved to be an invaluable resource about start-ups. Dr. Cauchon gave Mr. Dilts his pitch.

"Our goal is to create an R&D ecosystem for biotech and other life-sciences startups," said Dr. Cauchon. "We believe that bringing together lots of Ph.D. scientists and engineers under one roof to invent a new generation

of products and services will help Ventura County generate and keep good jobs in the new global business environment. And we think that this is a better model for economic development that helps Ventura County.” The results ultimately lead to the opening of the Ventura BioCenter August 2012.

Located in Newbury Park, just a few blocks from Amgen and Baxter, the Ventura BioCenter (www.venturabiocenter.org) is one of county’s newest business incubators. VBC houses four companies and has plenty of space for additional life sciences start-ups. VBC’s laboratories handle all of the major classes of biopolymers (proteins, peptides, nucleic acids, and carbohydrates) and small molecules as well as in-house product-development services such as analytical methods development, testing, and chemical synthesis.

Unfortunately, John Dilts passed away before the official opening of the VBC. “John was an incredible friend and mentor,” Dr. Cauchon said. “He had a deep understanding of the business, finance, and legal fields as well as an extraordinary personality that lit up the room whenever he entered. We all miss him.”

What Ventura BioCenter brings to the area’s startups most is freedom. It let researchers focus on science rather than infrastructure. More than just offices and shared and private lab space, VBC offers conference rooms, computing and communications services, and the staff amenities that researchers need to do their work comfortably and efficiently.

“I found out early on that in order to start up my biotech company I had to be familiar with a lot a very different fields, from plumbing, carpentry, and roofing to insurance, taxes, and government regulations,” said Dr. Cauchon. “Now that we have some experience with these things, and we know how much time and money they can consume, we hope to help other startups avoid them as much as possible. Everyone will be better off if these entrepreneurs can focus their time and attention on their new scientific products instead of worrying about getting a city permit to install a laboratory sink.”



Dr. Greg Cauchon with High-Pressure Liquid Chromatographs

Now housed in the new VBC, Dr. Cauchon’s companies continue to grow too. Amethyst Life Science’s Analytical Ventura division develops methods and test for a wide range of therapeutics and other materials. Another division, Designed Polymers, produces synthetic peptides (short pieces of proteins) and oligonucleotides (short pieces of DNA or RNA) as well as many different types of polymers for laboratory work. With plenty of space available for future growth, the Ventura BioCenter remains on the lookout for new companies and for additional products and services to offer them.

This item was originally published in the 11 July 2013 edition of the VC Reporter:

http://vcreporter.com/cms/story/detail/plugged_in/11041/

If you would like your company featured in Plugged-In, please contact Bridge Carney, bcarney@ieee-bv.org, or Karl Geiger, karl@ieee-bv.org.

Upcoming IEEE Buenaventura Section Events

ELECTRIC STOVE DAY

Come celebrate at a mixer event

6-9pm Thu 29 August



The first patent for an electric heating element was issued in 1859. Electric ranges and ovens became common in American homes in the 1930s when most homes finally achieved electrification and electric power became cheap enough to “burn”.

Come celebrate Electric Stove Day with us at an all-Section Mixer event. Meet your peers in other industries and just have fun.

When:

6-9pm Thursday 29 August

Where:

Los Robles Greens Clubhouse
299 South Moorpark Road, Thousand Oaks, CA 91361
<http://www.losroblesgreens.com/directions.html>

Registration:

No cost; cash bar. Please register so we get a head count for the nosh.
https://meetings.vtools.ieee.org/meeting_view/list_meeting/19697

MEETING NOTICE

BV-COMSOC Chapter

Date and Time: Tuesday, September 10th, 2013

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>

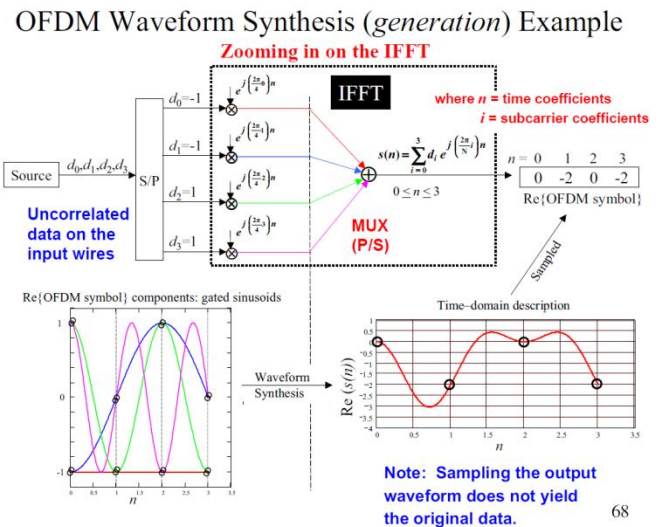
Agenda: 6:30 p.m. Dinner, & Networking
7:00 p.m. Meeting & Presentation

RSVP Requested: https://meetings.vtools.ieee.org/meeting_view/list_meeting/19643

Title: The ABC's of OFDM

Speaker: Dr. Bernard Sklar

Abstract: Orthogonal frequency division multiplexing (OFDM) is a scheme that utilizes many closely-spaced orthogonal sub-carriers. Data is partitioned into groups; each group is assigned a sub-carrier, which is then modulated in a conventional way. The primary advantage of OFDM is its ability to cope with severe channel multipath conditions, such as frequency-selective fading, without having to use complex equalization filters. SC-OFDM is an important variant of OFDM which ameliorates the peak-to-average power ratio (PAPR) problem inherent in OFDM. We use MATLAB examples. We show how to maintain signal orthogonality at the receiver. We review linear versus circular convolution, and illustrate applications from 802.11, 802.16, and LTE. The presentation strives to explain things simply and intuitively.



Biography: Dr. Bernard Sklar has over 60 years of technical experience in industry and academia. He helped develop the MILSTAR satellite system, and was the principal architect for EHF Satellite Data Link Standards at the Aerospace Corporation, El Segundo, California. Currently, he is the Director of Advanced Systems at Communications Engineering Services, a consulting company he founded in 1984. He has taught engineering courses at UCLA and the University of Southern California, and has presented numerous training programs throughout the world.

Dr. Sklar has published and presented scores of technical papers. He is the recipient of the 1984 Prize Paper Award from the IEEE Communications Society for his tutorial series on digital communications, and he is the author of the book, Digital Communications: Fundamentals and Applications, 2nd Edition, Prentice-Hall, 2001. He is past Chair of the Los Angeles Council IEEE Education Committee. He holds a Ph.D. degree in engineering from the University of California, Los Angeles.

Buenaventura Section and Chapter Info

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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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