



# IEEE BUENAVENTURA SECTION

## April 2012 Newsletter

<p>Wed. 11 Mar.</p>	<p>Computer</p>	<p><b>JNativeHook: Global Keyboard and Mouse Hooking for Java</b>  <i>Alexander Barker, CLU</i>          Richter Auditorium, California Lutheran University          6:30 pizza, networking, 7pm presentation</p>
<p>Wed. 18 Apr.</p>	<p>MTTS  AES LMAG</p>	<p><b>What the future holds for RF front-end hardware architectures in handset applications</b>  <i>James P. Young, Skyworks Solutions Inc.</i>          6:30 pm – refreshments, 7pm presentation          Ciao Wireless, 4000 Via Pescador, Camarillo CA</p>
<p>Wed. 25 Apr.</p>	<p>EMBS</p>	<p><b>Brain-Machine Interfaces</b>  <i>Dr. AJ Bieszczad, CSU Channel Islands</i>          6pm dinner (\$10 at door, no RSVP), 7pm discussion          California Lutheran University Ahmanson Hall (ASC 100)  <b>More info:</b> <a href="http://www.ieee-bv-embs.org/?p=367">http://www.ieee-bv-embs.org/?p=367</a>  <b>RSVP:</b> Pat Jacobs  <a href="mailto:pat.jacobs@advancedpersonnelprofiles.com">pat.jacobs@advancedpersonnelprofiles.com</a></p>
<p>Mon. 30 Apr.</p>	<p>Section</p>	<p><b>Section Operating Committee Meeting</b>          Section and Chapter Officers          6:30 PM Mandarin Buffet, TO</p>
<p>Apr.</p>	<p>ComSoc ED/CAS PES RAS</p>	<p>No events planned this month.</p>

## SECTION SPONSORS



Ciao Wireless, Inc.



The IEEE

## Membership Development

### *2012 Membership*

Remember to renew for 2012!

If you are an IEEE member and are currently between positions, select the "unemployed" option on the renewal to receive a 50% discount.

To apply to join, see

<http://www.ieee.org/join> or <http://www.computer.org/join>

NOTE: due to software upgrade, the IEEE renewal and membership systems will be offline 1-3 March and 30 March – 1 April.

– Bridge Carney, Section Vice Chair, Membership Dev.

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### *2012 R6 Awards Nominations*

Here is a chance to recognize a southern California engineer for his or her outstanding contributions to their profession and/or to their communities.

A company can be recognized as well for creating an atmosphere that facilitates IEEE volunteerism.

Those elected are nominated for the Western United States Awards as well.

Just complete the [IEEE-Region6-Awards-and-Recognition-Form-2012](#) as best you can and email to <mailto:awards@ieee-bv.org> with your contact information and we will help you from there.

Nominations close April 30, 2012.

-- Christian Ziegler, Section Awards Chair

## Job Opportunities

### Are you an EE?

**Second Sight** ([www.2-sight.com](http://www.2-sight.com)) in Sylmar is searching for a **QUALITY ENGINEER** and a **MANUFACTURING ENGINEER** who are also **EEs**. Great company, stock options, excellent opportunity.

Contact Pat Jacobs

805-579-0630

[pat.jacobs@advancedpersonnelprofiles.com](mailto:pat.jacobs@advancedpersonnelprofiles.com)

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### Sr. Electrical Engineer

Alfred Mann Foundation ([www.aemf.org](http://www.aemf.org)) in Valencia is searching for a Sr. Electrical Engineer who can design, analyze & perform PCB layouts for analog, power supply, RD & embedded digital designs. This is a premier medical device research organization!

Contact Pat Jacobs

805-579-0630

[pat.jacobs@advancedpersonnelprofiles.com](mailto:pat.jacobs@advancedpersonnelprofiles.com)

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### Principal Electronics Engineer

Pasadena medical device company searching for EE with a high-level responsibility for design & implementation of electronic systems. Requires embedded, RF, antenna, custom IC development and hands-on experience.

Contact Pat Jacobs

805-579-0630

[pat.jacobs@advancedpersonnelprofiles.com](mailto:pat.jacobs@advancedpersonnelprofiles.com)



## Please Welcome Our New Members

Our IEEE central membership database is down for maintenance at publication time. We'll update you about our new members soonest!

Members can find and make contacts by [searching MemberNet](#) at the [IEEE Member Portal](#). For new members, please update and share your information at the portal to help connect you to everyone, and remember to set up your new IEEE email forwarding address.



– Karl Geiger, Section Chair

## Have an Announcement?

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](mailto:newsletter@ieee-bv.org), so it can appear in the newsletter and the website. If you wish to write for the newsletter or website, please contact Zak or a Chapter chair.

--Zak Cohen, Section Secretary

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## Section Sponsors

Please join us in welcoming our newest Section sponsors:

### *Maverick Angels*



Maverick Angels investor network takes an entrepreneurial approach to angel investing to create win-win results with portfolio companies. We believe in a more holistic strategy for angel investing. If we better serve the needs of entrepreneurs, our interests will be better-served as investors, resulting in higher return on our investments. Maverick Angel's early-stage investing approach supports worthy entrepreneurs who are creating value-add innovations that will help accelerate our nation's economic road to recovery.

### *Advanced Personnel Profiles*



Advanced Personnel Profiles, Inc. has been recruiting engineering and leadership staff for the medical device, pharmaceutical/biotechnology, and biomedical industries since 1995. We work closely with organizations to define needs, attract top-rated performers, and create an outstanding personnel base. APP gives your company the edge you need in order to get the talent you need to succeed.

For information about our sponsors and supporting companies, see the sponsors page at

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

## Community Outreach and Service

### Ventura County Science Fair

Congratulations to the IEEE BV Section's Special Prize Winners at Ventura County's 2012 Science Fair.

- **Anthony Khodanian** for his project "A Computer, From Scratch!"
- **Lindsey Hulsebus**, "Forget Me Not — an iPad Application for Alzheimer's Patients and Caregivers".
- **Benjamin Baraad**, "ReMynder Binder".
- **Derek Busch**, "The Speed of Light: Explore Solar Energy with a Supercapacitor Car Motor".



*Left to right: Anthony Khodanian, Doug Askegard (Past Section Chair), Lindsey Hulsebus, Karl Geiger (Current Section Chair), Benjamin Baraad, Momin Quddus (AES Chair). Not shown: Dr. Charles Seabury.*

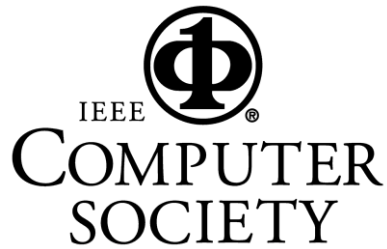
Many thanks to the terrific work at the Ventura County Office of Education. The competition was organized by John Tarkany and the awards master of ceremonies was Dr. Roger Rice. VC district schools and VCOE work very hard to encourage science, technology, engineering, and mathematics and these gentlemen, their staffs, and our science and math teachers especially need your gratitude and support.

Read the full story and details about the winning projects at

<http://www.ieee-bv.org/2012/03/bv-section-2012-science-fair-winners/>



## Section and Chapter News and Events



### **JNativeHook: Global Keyboard and Mouse Hooking for Java**

The Java programming language has supported keyboard and mouse input beginning with version 1.1. These low-level events are generated within registered component objects of the currently running application. Because there is no alternative input method, this behavior makes it impossible for a programmer to receive user input outside the focus of their application. This poses a serious problem for applications designed to run in the background or in a minimized state but still require some type of user input.

The JNativeHook library has solved this problem by utilizing platform-specific native code to tap low-level operating system keyboard and mouse events and deliver them to Java. Although native code was utilized to provide this added functionality, great care was taken to preserve both a portable and uniform experience across all supported Java platforms.

#### *About the Speaker*

Alexander Barker is a senior programmer at California Lutheran University's Information Systems and Services. He has completed his MSCS degree.

#### Where:

Richter Auditorium, California Lutheran University

#### When:

Wed 14 April, 6:30pm Networking, 7:00pm Presentation

#### More Info:

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





# MICROWAVE THEORY AND TECHNIQUES SOCIETY BUENA VENTURA SECTION



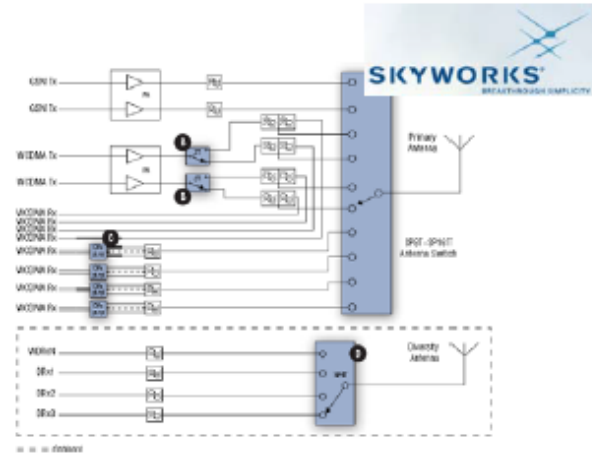
**You are invited**

**Date/ Time:** Wed April 18<sup>th</sup>, 2012  
6:30 PM Pizza & networking  
7:00 PM Presentation

**Location:** Ciao Wireless  
4000 via Pescador  
Camarillo, CA 93012

**Speaker:** James Young  
VP of Advanced Dev  
Skyworks Solutions

**Title:** What the future holds for RF front end hardware architectures in handset applications



Pre-distortion & envelope tracking in handset PAs

**Abstract:**

With the growth of smart phone sales and applications run on portable devices, data transferred over cellular networks is exploding. To meet this increase in data handling, handset RF front end complexity swells. Slim phones limit battery space as well as the room for RF front end architectures which must increase band coverage while reducing battery consumption. This talk will examine the competing front end architectures for future cellular markets. Example front end architectures will include discrete, multi-band, multi-mode, converged, and hybrid PA architectures. In addition, advantages and disadvantages of pre-distortion and envelope tracking as they apply to handset power amplifier applications will be discussed.

James P. Young is Vice President of Advanced Development at Skyworks Solutions Inc where he is responsible for cellular power amplifier and front end module design. His expertise includes power amplifier and RFIC circuit and system design. He was co-author of the first single chip radio in 1987, and since then has worked on a variety of highly integrated mixed signal receivers, excitors and power amplifiers in CMOS, BiCMOS, Bipolar and GaAs technologies. James has over 30 year of experience in RF design management and circuit design having held management positions at Skyworks Solutions Inc., Conexant Systems, and the Advanced Technology Division of Rockwell



# MICROWAVE THEORY AND TECHNIQUES SOCIETY BUENA VENTURA SECTION



Collins. He developed and taught the "RF CMOS Design" course for Besser Associates from 1999 to 2007. James holds thirteen patents, has authored or co-authored many papers and taught several short courses in this field.

## Directions to Ciao Wireless:

4000 Via Pescador

### From LA and South

Take the I-405N.

Take the US-101/VENTURA FWY  
North

Exit FLYNN RD and go straight.

Turn **RIGHT** onto **VIA PESCADOR**.  
(2nd Road on **RIGHT**)

### From Santa Barbara and North:

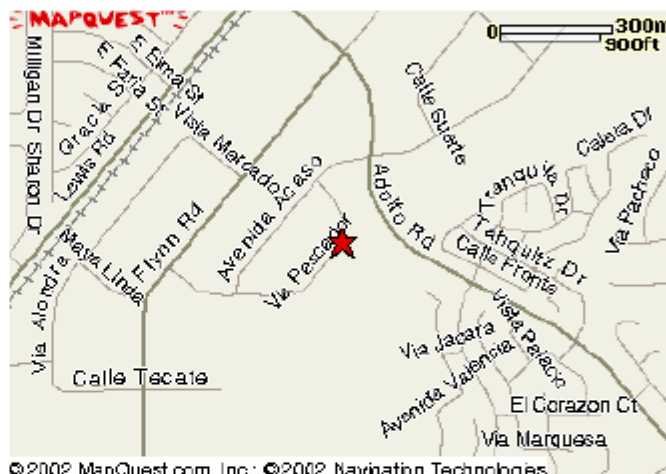
Take the US-101S/VENTURA FWY  
towards LOS ANGELES.

Take the **DAWSON DRIVE** exit and  
turn **RIGHT** from the ramp.

Turn **RIGHT** at the light onto  
**DAWSON DRIVE**.

Turn **LEFT** at the light onto **FLYNN  
ROAD**.

Turn **RIGHT** onto **VIA PESCADOR**.  
(2nd Road on **RIGHT**)



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Camarillo Ca.  
Phone: 805-389-3224



## April 25 – AJ Bieszczad, CSUCI, Brain Machine Interfaces

We welcome back Dr. AJ Bieszczad to update us on his research on biologically-inspired computation.



Prof. Andrzej Bieszczad is Associate Professor, and Director of Master Program in the Computer Science Program at California State University Channel Islands. He received his PhD in Systems and Computer Engineering in 1996 at Carleton University, Ottawa, Canada. His research interests include artificial and computational intelligence, networking, and game programming.

### Where

Ahmanson Science Center, California Lutheran University

### When

Wed 25 Apr. 6pm dinner, 7pm presentation. No RSVP; dinner is \$10 at the door

### Contact

Pat Jacobs, [pat.jacobs@advancedpersonnelprofiles.com](mailto:pat.jacobs@advancedpersonnelprofiles.com)

### More Info

<http://www.ieee-bv-embs.org/?p=457>



## Buenaventura Section and Chapter Info

<u>Section Office 2012</u>	<u>Name</u>	<u>E-Mail</u>
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Life Members Affinity Group	Jerry Knotts	<a href="mailto:chair@lmag.ieee-bv.org">chair@lmag.ieee-bv.org</a>
Microwave Technology and Techniques	Tom Campbell	<a href="mailto:TCampbell@sstrf.com">TCampbell@sstrf.com</a>
Power and Energy	Bridge Carney	<a href="mailto:bcarney@ieee-bv.org">bcarney@ieee-bv.org</a>
Robotics	Bob Rumer	<a href="mailto:rrumer@callutheran.edu">rrumer@callutheran.edu</a>

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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