

### Welcome to the Buenaventura IEEE Section for October 2010

Oct 12<sup>th</sup> Strategies in Software Design, Development and Testing of RF

ComSoc and Wireless Communications Products

Scott Tiegen, National Instruments

ITT Force Protection Systems, Thousand Oaks 6:30 pizza and networking, 7:00 presentation.

Oct 14<sup>th</sup> Personal Security: Keeping Your Life Private on the Internet

Section Los Robles Greens, Thousand Oaks

6:30 social, 7:00 dinner, 7:30 presentations.

Oct 27<sup>th</sup> Microscope on a Chip!

EMBS Dr. Changhuei Yang – Cal Tech

1 Nygren Hall, California Lutheran University, Thousand Oaks 6:00 reception, dinner, & networking; 7:00 presentation

Congratulations to our Southern Area award winners, two of whom are from the Buenaventura Section:

- Dr. Charles Seabury, for his leadership contributions to the robotics teams of Conejo High Schools
- Geoff Lenart, for his leadership contributions to reorganize and rebuild the IEEE Los Angeles Council

They will receive their awards at our annual Section dinner/speaker event in October, <u>Personal Security: Keeping Your Life Private on the Internet</u>. This year's event will be held at Los Robles Greens on October 14th. Our new venue and pricing will make this event much more accessible than in years past. Click on the link above to be taken to the registration for the event.

Power Society members: Bridge Carney has sent out e-mails asking for your support in starting a Power Society chapter in our Section. Please take a look at your in-box and give Bridge your support!

Steve Johnson, 2010 Section Chair

### Job Opening – Sr. RF Engineer, Valencia, CA

Alfred Mann Foundation (www.aemf.org): Research, develop, design & test RF circuits for inductive power transmission & communication between implanted medical devices & external systems. Circuits for RF amplifiers, transmitters, antenna coupling circuits & receivers. 10-years R&D experience, knowledge of various communication architectures, modulation & demodulation techniques.

### Job Opening – Sr. EE: Sylmar, CA

Help the Blind See at Second Sight (<u>www.2-sight.com</u>): Research, develop, design & test ASICs. 2-10 yrs exp., CMOS mixed signal ASIC design, RF & low power a plus.

Contact Pat Jacobs -- pat.jacobs@advancedpersonnelprofiles.com







### MEETING NOTICE

### **Buenaventura Section's ComSoc Chapter**

Date and Time: Tuesday, October 12, 2010

Location: ITT-Force Protection Systems, 3500 Willow Lane, Thousand Oaks, CA

**Directions:** take the Hampshire Rd. exit off Hwy 101, facility is east on the south side of 101 http://maps.yahoo.com/maps\_result?addr=3500+Willow+Lane&csz=Thousand+Oaks%2C+CA&country=us&new=1&name=&gty=

**Agenda**: 6:30 p.m. Reception, Pizza, & Networking

7:00 p.m. Meeting & Presentation

RSVP Requested: xwang97@yahoo.com

NOTE: The presentation takes place in a company that is involved in Government work. Therefore, please note that you will be asked for Government issued picture ID (Drivers License or better). Non-US Citizens will need to bring INS documentation, i.e. H1B, 151, or passport.

# Strategies in Software Design, Development, and Testing of RF and Wireless Communications Products

### Speaker: Scott Teigen

This presentation will discuss the latest trends in the wireless market and the

tools used today to design, develop, and test emerging RF and wireless communications products. It will cover strategies in software-defined development for minimizing cost and increasing speed and flexibility. Furthermore, attendees will see how virtual instrumentation (synthetic instrumentation) uses a modular



approach to speed test development time in characterization, validation, and verification of wireless transceivers. Finally, real-world applications of these techniques from Microsoft, Harris Communications, and FedEx will be discussed.

Bio: Scott Teigen is the National Instruments business development manager for radio



frequency (RF) and communications in California and specializes in RF consumer electronics, military applications, RF record and playback, MIMO and RF direction finding, and energy applications such as wireless smart meters. Scott guides engineers and scientists in defining and deploying their test and prototyping architectures. He works in tandem with NI sales engineers to help customers in the mil/aero, consumer electronics, telecommunications, and

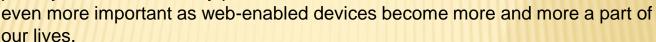
aerospace industries decrease test time, increase throughput, and decrease test cost. Scott has served in various roles at the National Instruments corporate office, its branch office in Shanghai, and most recently, its office in California. Scott has a bachelor's degree in electrical engineering from the University of Utah.

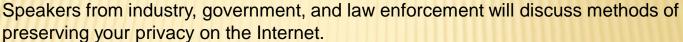
### Buenaventura ComSoc Chapter

## **Personal Security: Keeping Your Life Private** on the Internet

6:30 p.m. October 14, 2010 Los Robles Greens, Thousand Oaks

From identity theft to cyberstalking, the Internet has been a mixed blessing of commercial success and privacy intrusions. Privacy protection has become





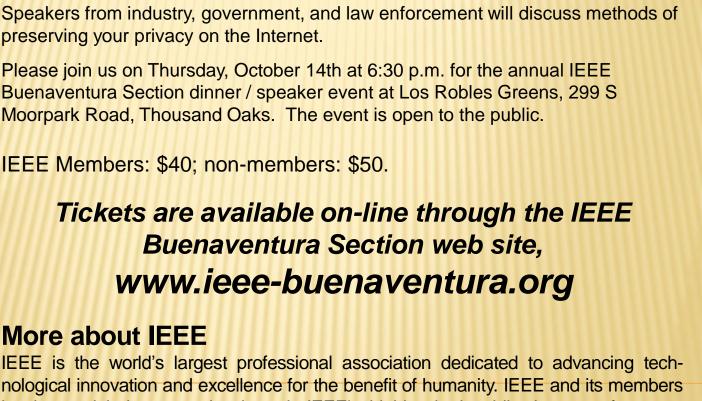
Please join us on Thursday, October 14th at 6:30 p.m. for the annual IEEE Buenaventura Section dinner / speaker event at Los Robles Greens, 299 S Moorpark Road, Thousand Oaks. The event is open to the public.

IEEE Members: \$40; non-members: \$50.

IEEE is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity. IEEE and its members inspire a global community through IEEE's highly cited publications, conferences, technology standards, and professional and educational activities.

IEEE Buenaventura Section is one of the most active in the world, sponsoring more than fifty technical activities a year.

EEE BUENAVENTURA SECTION







# Microscope on a Chip!

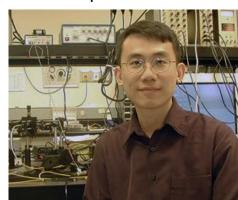
### A Novel Dime-Sized Microscope for Medical Applications

The Optofluidic Microscope project fuses the advantages of optical and microfluidic technologies to create small and cheap microscope systems that do not contain any optical elements. The working principle is similar to the way we see floaters in our eyes. The application range of this invention is wide: it can change the way biologists think about and use microscope, it can enable clinical point-ofcare blood and urine analysis, and it can improve heath care by providing cheap and rugged microscope units.

In addition, Dr. Yang will be presenting on initial findings

concerning an approach for turning biological tissues transparent through the use of holography. This is possible due to deterministic light scattering in tissues, and the ability to create a situation where light scattered from a tissue will retrace their paths.

Professor Changhuei Yang graduated from MIT in 2002 and has steadily moved towards warmer climates thereafter. After short stints at ESPCI (Paris) and Duke University, he settled down in Caltech in Dec 2003. Professor Yang received the NSF CAREER award and the Coulter Foundation Early Career Phase I and II Awards.



Meeting Site: California Lutheran University

1 Nygreen Hall,

60 West Olson Road, Thousand Oaks Meetings are free, open to the public

Dinner: Available at 6 p.m. for \$10 payable at the door,

no RSVP needed.

In general, visitor parking is no longer permitted Parking:

> before 7 p.m. on Memorial Pkwy and adjacent streets. However, CLU Public Safety has provided us with parking passes to download and use.

Pat Jacobs, pat.jacobs@advancedpersonnelprofiles.com Contact:

Our California Lutheran University, IEEE EMB Society, Alfred Mann Institute, MicroJoining Solutions,

IEEE Buenaventura Section, Amgen Foundation





# **Buenaventura Section Profile**

**Celebrating 125 Years** of Engineering the Future

The Buenaventura Section is one of the most active in the western United States, with over 100 speaker events in the last two years, and global recognition for our Chapters and Affinity Groups. We welcome your attendance and participation in Section events!

EMBS: Chapter of the Year 2006 and 2008

**LMAG:** Life Member Affinity Group of the Year 2009

### **Buenaventura Section Chapters**

**Aerospace Chapter** provides speaker events to members interested in the design, integration, test, and analysis of large, complex systems consisting of major subsystems that contain dissimilar electronic devices. Most of our members work on sensor systems (radar. Sonar, optics, and navigation), communications systems, command and control centers, avionics, space systems, military systems, digital signal processing simulators, and software development. Some members work on robotics, energy, and transportation systems

**Communication Society Chapter** a community comprised of a diverse group of industry professionals with a common interest in advancing all communications technologies.

**Computer Society Chapter** chapter's vision is to be the leading provider of technical information, community services, and personalized services to the ventura county's computing professionals.

**Electronic Devices Circuits and Systems** chapter places its interest in all aspects of the physics, engineering, theory and phenomena of electron and ion devices as well as looks at the theory, the analysis, the design (computer aided design), the practical implementation of circuits, and the application of circuit theoretic techniques to systems and to signal processing.

**Engineering in Medicine and Biology Society** chapter serving the needs of biomedical engineers in ventura county. Its leadership is striving to develop new ways to serve its members with modern information from remarkable speakers.

**Life Member Affinity Group** IEEE "Life" status is an automatic process which is based on an individual's membership record and age. The member must be at least 65 years of age and has been a member of IEEEor one of its predecessor societies such that the sum of age and years of membership equals or exceeds 100. The Buenaventura Section has the only Life Member Affinity Group in Southern California.

**Microwave Theory and Techniques Society** chapter promotes the theory and applications of RF, Microwave, Millimeter-wave, and Terahertz technologies.

**Robotics** chapter interested in both applied and theoretical issues in robotics and automation, including intelligent machines and systems used, for example, in space exploration, human services, or manufacturing, and the use of automated methods in factory, office, home, laboratory automation, transportation, and other systems to improve performance and productivity.

### **Buenaventura Section IEEE Officers**

We welcome your involvement - We have several positions open!

Section Office –2010	Name	E-Mail
Chair	Steve Johnson	sfjohnso@ieee.org
Vice-Chair	Momin Quddus	mominq7@yahoo.com
Treasurer	Zak Cohen	zakc99@aol.com
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<sup>\*</sup> acting



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If you need to reach individuals or companies with a technical background in Ventura County and beyond, this newsletter is an ideal vehicle. We can advertise your job openings, consulting services, or conferences and events.

Please contact Steve Johnson, sfjohnso@ieee.org

\$250 for a full page \$125 for ½ page \$62.50 for ¼ page \$20 for business card



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