

Welcome to the Buenaventura IEEE Section for August, 2010

- Aug 18th **A Talk on Terahertz Technology and Applications**
MTTS Dr. Peter Seigel, NASA Jet Propulsion Laboratory
Ciao Wireless, Camarillo
6:30 reception, pizza, & networking; 7:00 presentation
- Aug 19th **Organizational Meeting**, Jim Leatham (see note below)
Photonics 7:00 at Pickles Deli, Newbury Park
- Aug 26th **Lasers – The First 50 Years**
AES-LMAG Adrian Popa, Director, HRL Laboratories (retired)
Vitesse Semiconductor Corporation, Camarillo
6:30 reception, pizza, & 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

Photonics Society members and other interested folks: Jim Leatham is proposing to start a Photonics Society Chapter in the Buenaventura Section. Please see his flyer, in this newsletter.

Our neighbors at Cal State Channel Islands are sponsoring “Stem Cell Science – A Revolution in Medicine” on Tuesday, September 7th. I’ve included the flyer in the newsletter.

IEEE Region 6 is sponsoring a live webcast of “[IEEE Smart Grid Workshop: From Appliance to Generator and Back](#),” an extensive, all-day Smart Grid seminar, on Wednesday, September 8. Click on the hyper-link for workshop information and registration information.



We’re working to bring you an impressive list of speakers for our annual Section dinner / speaker event, “Can There Be Privacy In An Era of Pervasive Connectivity?” which 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.

Steve Johnson, 2010 Section Chair

Job Opening – Tech and Grant Writers: Valencia, CA

Alfred Mann Foundation (www.aemf.org): Technical Writer interface with engineers, scientists, assemblers & others to understand designs, procedures, test methods.

Grant Writers prepare proposals for submittal to potential funding sources (NIH, DARPA, etc.) to obtain funds for ongoing or special projects.

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



Wednesday, August 18th, 2010 (6:30PM)

Ciao Wireless, 4000 Via Pescador, Camarillo, CA 93012

6:30PM Reception & Networking; 7:00PM Presentation

A Talk on Terahertz Technology and Applications

Dr. Peter Siegel

NASA Jet Propulsion Laboratories

Dr. Siegel's research group specializes in the invention, development and delivery of a wide range of specialized sensor and source devices, components, and instruments spanning the frequency range between 100 and 5000 GHz which includes the millimeter, submillimeter and far infrared wavelength regimes: *the terahertz bands*.

Research work is conducted both at Caltech and at the nearby Jet Propulsion Laboratory, where the emphasis is on Earth, space science and planetary applications of THz technology.

Over the past 20 years Dr. Siegel and his [Submillimeter Wave Advanced Technology team](#) at JPL and Caltech have developed and delivered critical sensor hardware for four space flight missions: NASA's [Upper Atmospheric Research Satellite Microwave Limb Sounder](#), the first instrument to directly measure the anti-correlation between chlorine monoxide build up and ozone depletion on a global scale; NASA's [Earth Observing System Aura Microwave Limb Sounder](#) currently measuring a wide range of stratospheric molecular species involved in ozone depletion, global water distribution, climate change and pollution monitoring across the earth; [European Space Agency's Microwave Instrument on the Rosetta Orbiter \(MIRO\)](#), scheduled to rendezvous with comet Churyumov-Gerasimenko in 2014 and measure nuclear temperature and out gassing rates of carbon monoxide, water, ammonia and methanol; and most recently the Heterodyne Instrument for the Far Infrared (HIFI) on the European Space Agency's [Herschel Space Telescope](#), an ambitious astrophysics mission to record thousands of molecular signatures between 300 and 1900 GHz in and around star forming regions and in external galaxies, as a means of understanding the composition and evolution of the universe.

In addition to Earth, planetary and space science, Dr. Siegel is interested in terrestrial applications of terahertz imaging and spectroscopy and has been actively pursuing several related initiatives in the health and biological sciences at [Caltech](#) as well as defense and security applications at both [Caltech](#) and [JPL](#). The very first [National Institute of Health program in the terahertz field](#), granted to Dr. Siegel in 2002, is just finishing up with the goal of developing high signal-to-noise imaging and spectroscopy instruments for disease diagnostics. A second THz NIH program to develop low loss terahertz waveguide for endoscopy applications is also in its final year.

**New Photonics Chapter
Organizational meeting
August 19th at 7:00 pm
at Pickles in Newbury Park
(1940 Newbury Road, S of US-101, E of Borchard)**



**Celebrating the
Laser's first 50
years!**



Photo Credit: Lasertainment Productions Inc.

Mission: Learn and discover the wealth of ongoing photonics activities in the area, as well as network with fellow Photonics professionals.

Meetings held on the 3rd Thursday of each month @7 PM Sept - June at a location TBD. Even if you can't join us for this organizational meeting, we hope you will plan on attending our gatherings – we'll provide something to eat and an interesting speaker each evening.

If you can't join us but want to participate, please leave a message with Jim Leatham at jleatham@ieee.org or 818.294.9484

IEEE BUENAVENTURA SECTION
Aerospace & Electronics Systems Chapter
&
Life Members Affinity Group



LASERS – THE FIRST 50 YEARS

Date: August 26, 2010

Time: 6:30 pm Refreshments and Networking,
7:00 pm Talk

Venue: Vitesse Semiconductor Corp.
741 Calle Plano,
Camarillo, CA 93012

In May 2010, the laser industries' LASERFEST50 celebrated the 50th anniversary of the operation of the world's first laser, a pulsed ruby laser, producing the first coherent light on May 16, 1960. The ruby laser was demonstrated at the Hughes Research Laboratories (HRL) in Malibu, California where the speaker worked for 40 years during this technically exciting period of time. The talk will also discuss the microwave ruby maser technology developed at HRL that led to the development of the first laser, and the many erroneous descriptions of the first laser found in reference books, technical publications, and most magazine and newspaper articles. Who invented the laser was the subject of more than 20 years of litigation with a relatively unknown scientist being finally awarded the patent in 1977, beating out several illustrious corporate scientists, academicians and Nobel Laureates. Interesting aspects about the development of the second laser, the helium neon gas laser, at Bell Laboratories in 1960, and the first argon ion laser, also invented at HRL in 1964 will also be presented. While the first two lasers are now relatively obsolete, the argon ion laser has been used in eye surgery for more than 40 years.

Please RSVP to Sunil Pai (paisunils@ieee.org) if you wish to attend this meeting.

Speaker: Adrian Popa

Mr. Popa retired in 2000 from the position of Director, Corporate Technology at HRL Laboratories LLC, formerly the Hughes Research Laboratories, in Malibu, CA which at that time was co-owned by General Motors, Boeing and Raytheon. He has a total of 55 years experience in the aerospace and automotive industries including his 40 years at HRL. Prior to joining Hughes in 1961, he was with the Electromagnetics Testing Division of the Douglas Aircraft Company for 7 years. During the Korean conflict he served 2 years as an aviator in the U.S. Army and he also operated radars in the NIKE surface to air missile system.

Mr. Popa received his BSEE with honors from UCLA and graduated from the USC Executive MBA Program. He is a Life Senior Member of the Institute of Electrical & Electronic Engineers and Tau Beta Pi. He has 10 issued patents and more than 20 publications and is a co-author of the 1980 and 1991 editions of the CRC/McGraw-Hill Handbook of Laser Science and Technology. Mr. Popa has published his work in leading journals and periodicals including the Scientific American Magazine. Also, he currently answers Physics and Engineering related questions on the Washington University Medical School's award winning Mad Science Web site (www.madsci.org) which has archived over 500 of the questions he has answered.



Can There Be Privacy in an Era of Pervasive Connectivity?

**Annual IEEE Buena Ventura Section
Dinner / Speaker Event**

Thursday, October 14
Los Robles Greens,
299 South Moorpark Road,
Thousand Oaks CA 91361

**Speakers from Internet Search,
Law Enforcement, Health Care,
and Government**

STEM CELL SCIENCE

- a revolution in medicine -

a talk by **Alan Trounson, Ph.D.**

President of the California Institute for Regenerative Medicine

DATE: TUE, SEPT 7th, 2010

LOCATION: CSU CHANNEL ISLANDS (space TBA)

RECEPTION: 5:30pm – 6:00pm

SPEAKER: 6:00pm – 7:00pm

R.S.V.P. to:

Jennifer Ormond at jennifer.ormond@csuci.edu

or (805) 437-3203 by August 13th.

space is limited - reserve today



Channel Islands
CALIFORNIA STATE UNIVERSITY

Buenaventura

Section Profile

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 IEEE or 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

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This Monthly Newsletter is distributed electronically to 2200+ members and friends of IEEE and then posted on our website:

WWW.IEEE-BUENAVENTURA.ORG

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

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We welcome your involvement – We have several positions open!

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