IEEE Buenaventura Section

February 2012 Newsletter

Wed. 8 Feb	**Computer**	**Analysis of the Stuxnet Computer Worm** Liam O'Murchu (reschedule from Nov. due to illness) Richter Auditorium, California Lutheran University 6:30 pizza, networking, 7pm presentation **Register:** https://meetings.vtools.ieee.org/meeting_view/list_meeting/10497
Wed 15 Feb	**AES MTTS**	**Digital T/R Module for Wide Swath Synthetic Aperture Radar** Dr. Max Jenabi 6:30 reception, 7pm talk Ciao Wireless, 4000 Via Pescador, Camarillo CA **Info**: http://goo.gl/T2rQq
Wed 22 Feb	**EMBS**	**Assistive and rehabilitative technology** Benjamin Mallard, M.S.E.E. 6pm dinner ($10 at door, no RSVP), 7pm discussion California Lutheran University Ahmanson Hall (ASC 100) **More info:** http://www.ieee-bv-embs.org/?p=367 **RSVP**: Pat Jacobs pat.jacobs@advancedpersonnelprofiles.com
Thu-Fri 24-25 Feb	**R6 Spring Mtg**	**IEEE Region 6 Section Meeting** Section Chairs and Officers San Diego at the Hampton Inn San Diego-Sea World/Airport Area **Info**: http://sites.ieee.org/r6/category/region-meetings/
Mon 27 Feb	**Section**	**Section Operating Committee Meeting** Section and Chapter Officers 6:30 PM Mandarin Buffet, TO
Wed 29 Feb	**Section**	**Section Mixer** IEEE Members and Guests TBA
Feb	**ComSoc LMAG PES RAS**	No events this month.

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Membership Development

Please Welcome Our New Members

Please join me in welcoming our newest Section members:

- Nermeen Aldaoud
- Les Austin
- Peter Shen-Hsiung Chen
- Cam Tu Nguyen

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

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

– Bridge Carney, Section Vice Chair/Membership Development

Job Opportunities

Advertise Your Open Positions

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Contact

Zak Cohen zcohen@ieee.org

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, zcohen@ieee.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

Community Outreach and Service

Ventura County Science Fair Judges Sought

Ventura County Office of Education (VCOE) seeks scientists and engineers to judge 2012's Science Fair projects. Breakfast and lunch are included.

Judges review and score projects from students in grades 6-12 covering computing, mathematics, electronics, physics, environmental and biological sciences, and more. Ventura County has sent many budding scientists and engineers on to both State and National Competitions where they have secured 1st, 2nd and 3rd place in several categories.

Ventura County has held Science Fair annually since 1955. Please come make the 58th Fair a success for our best and brightest young minds.

Contact **Momin Quddus** about joining the IEEE Buenaventura judging team.

Contact the John Tarkany, Ventura County Office of Education, at jtarkany@vcoe.org

Details on the Web: http://www.vcoe.org/sc/ScienceFair.aspx

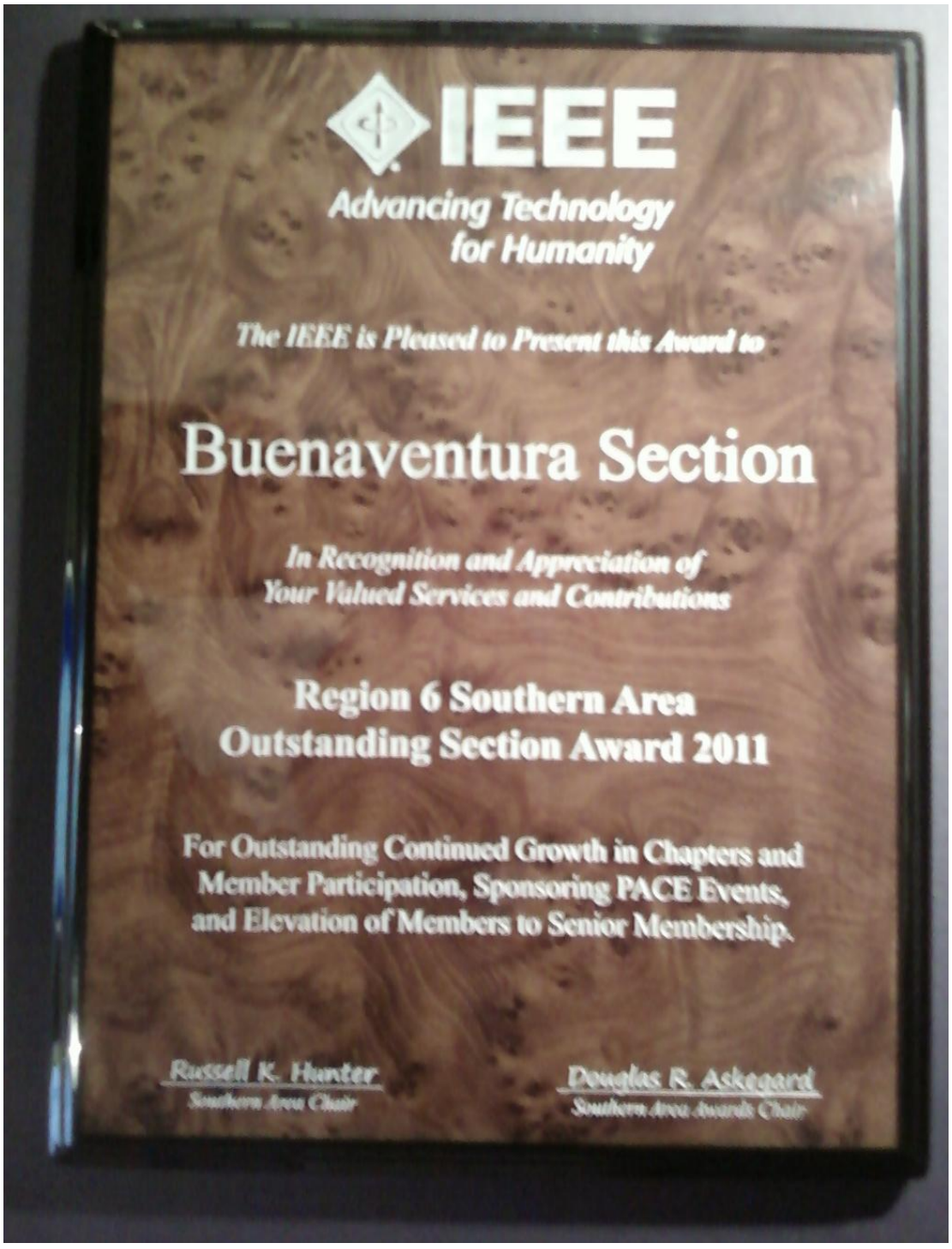
Register to be a judge:

http://survey.vcoe.org/Survey.aspx?s=c9bfb3f1eacf44eba210481e3bbc92ad

John Tarkany

Section and Chapter News and Events

Buenaventura section has won the IEEE Region 6 (Western U.S.) 2011 South Area Outstanding Section award



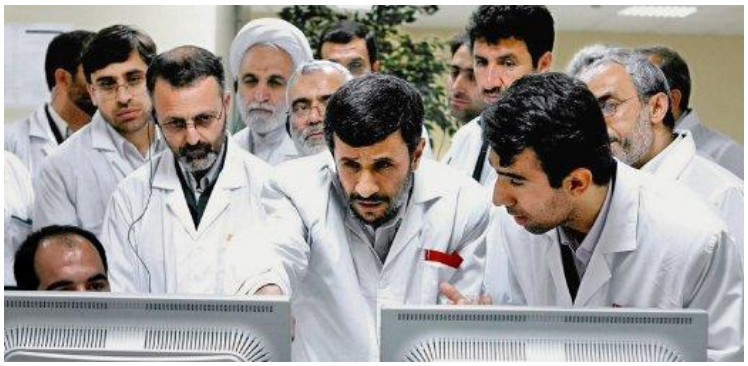
Congratulations to all the officers, volunteers, and members who make Buenaventura Section what it is!

Analysis of the Stuxnet Worm

On Wednesday, **8 February 2012**, Liam O Murchu of Symantec will discuss the analysis of the Stuxnet Worm. This meeting is rescheduled from November due to illness.

Abstract

Stuxnet has gained a lot of attention from researchers and media recently. There is good reason for this. Stuxnet is one of the most complex computer threats that have been discovered.



Stuxnet is a threat that was primarily written to target an industrial control system or set of similar systems. Industrial control systems are used in gas pipelines and power plants. Its final goal is to reprogram industrial control systems (ICS) by modifying code on programmable logic controllers (PLCs) to make them work in a manner the attacker intended and to hide those changes from the operator of the equipment. In order to achieve this goal the creators amassed a vast array of components to increase their chances of success. This includes zero-day exploits, a Windows rootkit, the first ever PLC rootkit, antivirus evasion.

The Symantec Stuxnet Dossier is available at: http://www.symantec.com/connect/blogs/updated-w32stuxnet-dossier-available

About the Speaker

Liam O Murchu is the manager of Security Response Operations for North America with Symantec. In this role he leads the team of malware reverse engineers and is constantly combating the latest malware attacks and dealing with cutting edge threats of all sorts. Liam has analyzed the majority of the high profile threats that have emerged in the last number of years, both documenting their actions and working with both private parties and law enforcement agencies to counter these threats. His research has been presented before the US congress and the British and EU Parliaments. As part of his research he has been credited with discovering several zero day vulnerabilities. Recently Liam has analyzed the Stuxnet worm which targeted Uranium enrichment plants in Iran.

When: Wednesday, 8 February 2012. 6:30 PM pizza/networking, 7 PM presentation, Q&A

Where: Richter Auditorium, Ahmanson Science Center, California Lutheran University

Info: http://www.ieee-bv-cs.org/2012/01/08/analysis-of-the-stuxnet-worm/

MEETING NOTICE Buenaventura MTT-S Chapter

Date and Time: Wednesday, February 15th, 2012 (6:30PM)

Location : Ciao Wireless

4000 Via Pescador, Camarillo, CA 93012

Agenda: 6:30PM Reception & Networking;

7PM Presentation

Presenter : Dr. Max Jenabi

Jet Propulsion Laboratory and California Institute of Technology

Digital Transmit/Receive Module for Wide Swath Synthetic Aperture Radar

Perhaps the greatest challenge to achieving future Earth Science strategic objectives is providing broad coverage of the Earth's surface as well as detailed, timely surveillance of specific areas of great scientific and societal importance. This includes areas not known in advance, such as sites of earthquakes, volcanic eruptions, floods and other events with major societal repercussions.

Achieving wide-area, frequent-repeat coverage and targeted measurements of specific sites in a timely fashion requires two elements: moving to higher orbits (MEO or GEO) and large antennas that provide a great deal of operational flexibility in the formation of beams on both transmit and receive.

Digital T/R modules are a key component of large active-array architectures. It enables reception of multiple simultaneous received beams using digital beam forming (DBF). This added capability increases the instantaneous coverage area and also provides maximum operational flexibility. DBF architecture also eliminates a vast network of analog combiners along with their associated mass. Finally, calibration of a large array is substantially simplified by the elimination of the analog combiners.

Speaker: Dr. Max Jenabi

BIO: Max Jenabi is currently JPL senior Engineer. He earned his MSEE and PhD degrees in electrical engineering from UCLA in 1986. He has worked as Senior Member of Technical Staff at ITT Industries from 1990 to 2008. Prior to joining ITT, He was Scientist at Hughes Aircraft Company from 1982 to 1990. Dr. Jenabi's research interests are in the area of Active Electronically Steered Array for Radar, Synthetic Aperture Radar, Communication, and Electronic Warfare systems using Transmit/Receive module, Tiles, and Panels. He holds several patents in this area.

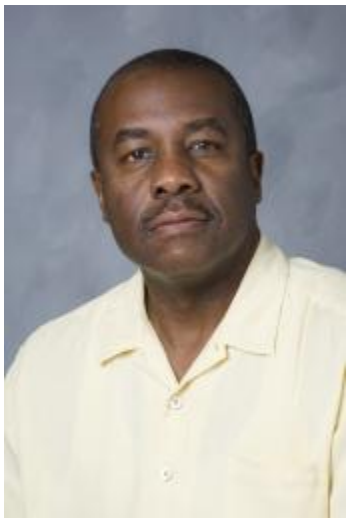
Feb 22 – Assistive Technology Engineering – Benjamin Mallard, M.S.E.E., California State University Northridge

BY
SITE ADMINISTRATOR
– JANUARY 23, 2012**POSTED IN:** ANNOUNCEMENTS, EVENTS, UNCATEGORIZED, UPCOMING EVENTS

IEEE EMB
IEEE Engineering in Medicine and Biology
Buenaventura Chapter www.ieee-bv-embs.org

Assistive and rehabilitative technology is an emerging discipline focused on improving the functional capabilities of those who utilize assistive technology devices. Engineering experts create the devices that enable these individuals to function not only in healthcare settings but also in educational and corporate environments where their participation is critical to fulfilling the ultimate goal of making accessibility universal. CSUN's master's degree in Assistive Technology Engineering is a program that enables students who are focused on the engineering, design and manufacture of assistive technology devices to study and collaborate with students whose focus is on assistive technology assessment, advocacy and counseling, i.e., the "human services" side of the equation.

Benjamin Mallard, M.S.E.E.



Benjamin Mallard is a lecturer in CSUN's Department of Electrical and Computer Engineering. He came to the CSUN faculty with 15 years of industrial experience, which included working as a microelectronic circuit design engineer at TRW Defense and Space Systems and as an engineer specialist at Northrop Corporation. As an instructor for more than 15 years, Mr. Mallard has taught subjects covering solid-state devices, introductory circuit and network theory, electronics and data-acquisition architectures. His areas of interest include high-speed data converters, biosensors, bioinstrumentation, wideband amplifiers, low-power electronics and nanotechnology. Mr. Mallard holds a B.S. in electrical engineering from the Massachusetts Institute of Technology and received his M.S. in electrical engineering from the University of Southern California. He co-teaches Product Design and Development for Assistive Technology (ATE 607) and Augmentative and Alternative Communication (ATE 608).

More Info/Parking Directions: http://www.ieee-bv-embs.org/?p=367

Neighboring Section News and Announcements

Open Evening for Entrepreneurs
California Lutheran University

Fellow Mavericks and Friends of our Network:

You are invited to attend the next Maverick Angels Open Evening for Entrepreneurs at California Lutheran University. This free event will be held in the Lundring Events Center. The Open Evening is an event geared towards familiarizing entrepreneurs with:

- Angel and Venture Capital investing strategies
- Maverick Angels unique investment process
- Entrepreneur resource networks
- Navigating the Entrepreneurial Ecosystem

At the event there will be an opportunity for select attendees to give their **Elevator Pitch, for a chance to win FREE** attendance at an upcoming Maverick Angels Investment Accelerator ($495 value).

For more information on the Investment Accelerator please click here

Maverick Angels Open Evening for Entrepreneurs

Tuesday, February 21, 2012
6:00PM - 8:00PM

California Lutheran University
Lundring Events Center (Building 103a on map, downloadable from the link below))
60 West Olsen Rd.
Thousand Oaks, CA 91360

Special Thanks to our Venue Sponsor:

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Best Regards,

Dan Roberts, Chief Operating Officer
Maverick Angels Sponsors and Affiliates

Buenaventura Section and Chapter Info

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Be sure to check the Section's websites for the latest updates, meeting flyers, and newsletters. Some event details may change. Sites:

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http://comsoc.ieee-bv.org/	Communications
http://www.ieee-bv-cs.org/	Computer
http://www.ieee-bv-embs.org/	Engineering in Medicine and Biology

IEEE Buenaventura Section