

IEEE BUENAVENTURA SECTION

Welcome to the Buenaventura IEEE Section for March, 2010

Mar 10 **Physical Computing – Interaction Design and**
Computer **Systems Engineering**
Carlyn Maw, Co-Founder of CrashSpace
Ahmanson Science Center, Cal Lutheran University
6:30 reception, pizza, & networking; 7:00 presentation

Mar 31 **Will I Walk Again? The Injectable Microstimulator System**
EMBS Mark Chamberlain, Alfred Mann Foundation
Ahmanson Science Center, Cal Lutheran University
6:00 reception and dinner, 7:00 p.m. presentation

National Engineers Week events went off without a hitch last month – please take a look at the article, included here, written by Doug Askegard and Nathalie Gosset. Thanks and kudos to Doug, Albert Wolfkiel, and Sunil Pai, who were instrumental in organizing the event for Ventura and Santa Barbara counties.



We look forward to seeing you at our Speaker Events this month. Most of our events are free and open to the public, and often have dinner available. All of our events are posted on the Section calendar, available here on our site.

Our Region and our neighbor sections also have events this month.

Officers of our Section are helping to organize the first annual AMA-IEEE Conference on Personalized Medicine, which will take place in Washington, D.C. at the end of March. A conference flyer is included for your reference.

We look forward to seeing you at our events this year!

Steve Johnson, 2010 Section Chair

Physical Computing – Interaction Design and Systems Engineering

Carlyn Maw, Co-founder of [CrashSpace](http://CrashSpace.com)

Wednesday, 10 March 2010



Richter Auditorium, Cal Lutheran University,
Thousand Oaks (6:30-8:30pm)

Location: Richter Auditorium, Cal Lutheran University, Thousand Oaks (6:30-8:30pm)

Physical Computing is a hands-on multidisciplinary approach to interaction design and systems engineering. As such it is neither electrical-engineering-lite nor advanced hobby electronics, but rather an approach to innovation and creativity through which micro-controllers might end up in mix. Practitioners are frequently experts in their fields, examples including:

- A musician composing a symphonies based on data collected from sensors on the body.
- An occupational therapist working to develop a pressure vest for children with sensory modulation disorders.
- A scientist tracking monkeys.
- A fashion designer creating a dress that unfurls like a flower.

Physical Computing methodologies are designed to quickly grasp the imagination of beginners by treating electronics and programming as tools that simply extend what the new-comer already knows and cares about rather than as completely separate realms of expertise. With an emphasis on learning by doing and rapid prototyping there is a quick pay off for those just starting out and for experts making “sketches.”

Additionally, Physical Computing has become a way of life for the communities forming around it. There are many people around the world working to increase the accessibility of the making-things way for the average person. Carlyn will provide an overview of the conceptual approaches, tools, people and communities that are contributing to Physical Computing today.

Date Wednesday, February 10, 2010

Location: Richter Lecture Hall, Ahmanson Science Center,
California Lutheran University
60 W. Olsen Road, Thousand Oaks, CA 91360

Parking Free parking in lot at corner of Olsen and Montcle

Time 6:30 p.m. Reception, Pizza, & Networking,
7:00 p.m. Meeting & Presentation

Contact Karl Geiger, kgeiger@computer.org,
805-876-4271, or

Craig Reinhart, reinhart@callutheran.edu,
(805) 493-3320





Will I walk again?

New Product Development, the Injectable Microstimulator System - Mark Chamberlain, Alfred Mann Foundation

Wednesday, March 31, 2010 - 7 PM

CLU - Richter Hall, Ahmanson Science Building

Since beginning the project in 1989, AMF has been through many iterations of the micro stimulator device. AMF recently completed a clinical trial in the United Kingdom to rehabilitate arm movement in patients who are hemiplegic as a result of a stroke. The micro stimulator technology has been licensed to Advanced Bionics Corporation (now Boston Scientific), which developed a battery-powered version of the device, named the BION®, which has been used in clinical trials to treat urinary urge incontinence and migraine headaches. The latest micro stimulator now in development at AMF that will contain sensors and high-speed telemetry. These features will allow the implants not only to stimulate but also to detect movement and communicate to a central processing unit which can, in turn, use the sensor information to adjust the timing and level of stimulation to hundreds of individual implants. The number of uses for such a flexible system is limited only by the imagination. Fortunately, imagination is a quality not lacking at AMF. Mr. Chamberlain will be updating the group on the state of current device and discussing various patient applications for the technology.

Mark Chamberlain - Mann Foundation

Mark Chamberlain has more than 30 years of industry experience in management and complex operations and more than 15 years experience in various management roles for medical products companies. Mark joined Hughes Aircraft Company and moved through positions in Production Control, Finance and Operations. His medical experience began at Advanced Bionics where he was responsible for all aspects of the manufacturing process for implantable medical products. His growth through Advanced Bionics and later the Alfred Mann Foundation included positions as Vice President of Administration and Operations. As Vice President of Operations for Bioness, Inc., Mark managed an integrated international manufacturing and development company with US sales and International sales and developed new products for the Worldwide Medical Device Industry.

Presently Mark has rejoined the Alfred Mann Foundation for Scientific Research as Vice President Research and Development and has been a speaker for IEEE in the past.

Meeting Site: California Lutheran University,
100 Ahmanson Science Building, 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. Visitor Parking is no longer permitted before 7 p.m. on Memorial Pkwy and adjacent street without a pass, downloadable from the EMBS web site.

Contact: Harry Croner, croner@earthlink.net

Our Sponsors: California Lutheran University, IEEE EMB Society, Alfred Mann Institute, MicroJoining Solutions, IEEE Buenaventura Section, Amgen Foundation





Engineers Week / February 14-20, 2010

Event held at the Reagan Presidential Library Feb. 18, 2010

National Engineers Week (NEW but a.k.a EWeek for the past 20 years), founded in 1951 by the National Society of Professional Engineers in conjunction with President George Washington's birthday, is now a formal coalition of more than 70 engineering, education, and cultural societies, and more than 50 corporations and government agencies. President Washington is considered as the nation's first engineer, notably for his survey work. Dedicated to raising public awareness of engineers' positive contributions to quality of life, EWeek promotes recognition among parents, teachers, and students of the importance of a technical education and a high level of math, science, and technology literacy, and motivates youth, to pursue engineering careers in order to provide a diverse and vigorous engineering workforce. Each year, EWeek reaches thousands of schools, businesses, and community groups across the U.S.

Your IEEE Buenaventura Section is a proud participant in the local NEW celebration – a banquet and award event held annually for the past 36 years to honor engineers in Ventura and Santa Barbara counties. This year we were also joined by the IEEE Central Coast Section from Santa Barbara who provided generous funding to the scholarship pool. In addition to awards recognizing Engineer of the Year and Project of the Year, the highlight of the evening was the awarding of scholarships to 10 deserving engineering/computer science students.

Recipients of NEW 2010 scholarships are, in alphabetical order:

Laura Devendorf	Computer Science	UC Santa Barbara	3.54 GPA
Daniel Dunham	Chemical Engineering	UC Santa Barbara	3.75 GPA
Ricardo Gayton	Mechanical Engineering	Ventura College	4.00 GPA
Robert Gutierrez	Bioengineering	Santa Barbara Community College	3.94 GPA
Sharice Handa	Mechanical Engineering	UC Santa Barbara	3.72 GPA
Yo-soub Lee	Automotive Engineering	Santa Barbara Community College	3.41 GPA
Nathaniel Magill	Mechanical Engineering	Santa Barbara Community College	4.00 GPA
Luis Mejia	Environmental Eng.	Ventura College	3.09 GPA
Samuel Shaner	Chemical Engineering	UC Santa Barbara	3.95 GPA
Diana Tang	Mechanical Engineering	Moorpark College	3.50 GPA

The ASNE & ASCE societies also sponsored the 2010 Teacher Recognition Award:

Michael Weingarden teaches at Newbury Park High School

Michael is a former engineer who fell in love with teaching, and his students love him.

Your IEEE Buenaventura officers served in NEW Leadership positions:

Albert Wolfkiel	Scholarship Chair
Sunil Pai	Speaker Coordinator
Doug Askegard	Chair of the organizing committee

Your IEEE Buenaventura Section at the NEW 2010 Banquet



Event held at the Reagan Presidential Library Feb. 18, 2010



Carol & Steve Johnson with Dr. Alan Cummings, guest speaker,
and Angie Monheim, AES Chapter Secretary



Mishaal Khalil, Albert Wolfkiel, Momin Quddus, Jerry Knotts,
MTT-S Officer NEW Scholarship MTT-S Chair LMAG Chair

Your IEEE Buenaventura Section at the NEW 2010 Banquet



Engineers Week / February 14-20, 2010

Event held at the Reagan Presidential Library Feb. 18, 2010



Steve Johnson, IEEE-BV Chair presents our Engineer of the Year award to Dr. Joseph Schulman, for a lifetime of biotech achievements



Steve presents our Project of the Year award to the Cynvenio Biosystems team for Development of the Micro-Magnetic Rare Cell Sorter



IEEE

Celebrating 125 Years
of Engineering the Future

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.

First AMA-IEEE Medical Technology Conference on Individualized Healthcare

21-23 March 2010

Renaissance Mayflower Hotel, Washington, DC



The American Medical Association (AMA) and the IEEE Engineering in Medicine and Biology (EMB) Society invite you to participate in the First AMA-IEEE Conference on Medical Technology devoted to Individualized Healthcare. Individualized Healthcare is a broad term that encompasses what is known as personalized medicine based on genomically-determined patient profiles and technologies to deliver individualized treatment plans. Individualizing medical care benefits patients and engages healthcare providers, challenges engineers and demands that innovators develop low-cost and effective technologies. We invite participation by healthcare providers, engineers and innovators, industrial leaders, government agencies and policy makers. The conference will be inaugurated by a keynote lecture at the evening reception on March 21. The following two days will feature plenary and poster presentations focusing on grand challenges and the innovative technological solutions necessary to realize the practical application of Individualized Healthcare for improving the quality of patient care.

Important Dates

November 6, 2009
Call for Abstracts

February 12, 2010
Abstract Submission

February 19, 2010
Notification of Acceptance

Topic Areas

**Personalized Medicine
in the Delivery of Care**

Connected Health

**Electronic Medical Records
and Personal Health Records**

Point-of-Care Technology

AMA and IEEE have arranged for a special group rate of \$239.00 single or double occupancy, excluding taxes (14.5%), for participating attendees at the Renaissance Mayflower Hotel. Attendees can call the Renaissance Mayflower reservations direct (1-800-468-3571 or 1-202-776-9251) and request the AMA-IEEE Medical Technology Conference block. **Online reservations can be made directly through this [link](#).** Rooms are limited at this rate and the deadline for making reservations is 7 March 2010.



SFV-CCC Software Seminar

Announcing Request for Information & Participation

IEEE-XXX Software Seminar Event Chairs: Leonard J. Reder & Dr. Narisa Chu

Submission Deadline: March 15, 2010

IEEE-SFV CCC Software Seminar Event: September 18, 2010 or TBD

(Note: this date is subject to change depending on results of this solicitation)

The IEEE San Fernando Valley Section Computer and Communications Chapter (IEEECCC) in conjunction with many local IEEE Sections in Southern California and the IEEE SFV Professional Activities Committees for Engineers (PACE) are planning one-day software seminar events to be held once a year in September. The first such event was held at the Jet Propulsion Laboratory on June 13, 2009 and show-cased JPL's flight/instrument software research work and the facility. The IEEE-CCC is spear-heading similar events for 2010, 2011 and 2012, and is seeking input and ideas for contributions from interested parties.

The motivation for these seminars is envisioned as follows:

1. To present and explore new and exciting software practices and technologies
2. To bridge the gap between commercial, government, aerospace and academia use of software techniques and tools to gain productivity, lower development costs and enhance capability.

Common software challenges exist in the commercial and aerospace/military software engineering domains. The IEEE-CCC is interested in organizations willing to share knowledge of state-of-the-art software engineering topics as a means to infuse new software practices into local industries. We are seeking, with our software seminar event, to present innovative ideas that, via repurposing of processes, techniques, and implementations from one industry area to another can make software development more productive, cost effective and efficient for a wide variety of industries. The intent of the event is to present both tutorial and implementation talks that will have a broad appeal to most of the Southern California IEEE membership. Demonstrations to support the program talks are encouraged. The most important goal for these events is to share software techniques and technology information in a technically correct and responsible way that will benefit the local IEEE membership and their employers.

Our focus is local, however, the software subject matter we will endorse will be topnotch practice and technology delivered from industry, academia and research organizations. We are interested in hearing from a wide variety of organizations located at various Southern California venues. These events will carry the name "IEEE-XXX Software Seminar" where the XXX will be replaced by the organization name (or names) as appropriate. For example, the first Seminar is named IEEE-JPL Software Seminar.

SFV-CCC Software Seminar RFI (Continued)

We are seeking information from companies or organizations interested in presenting a program and possibly hosting the event at their facility. We would like to hear from small, medium or large technology companies or research organizations about ideas for presenting your work at these events. This event is a great way to gain visibility with tens of thousands of IEEE professional members in Southern California and it can attract potential clients or new employees to your operation. The academic research community will find this to be an opportunity to share your results and achievements with local IEEE membership from industry and academia. Local university research groups interested in presenting informative technology briefings are encouraged to submit and perhaps collaborate with private industry.

Areas of Interest

The seminar topics of interest are diverse and intended to attract academic and industry practitioners as well as government experts. Half day and whole day session tracts are solicited in the following topic areas, but are not limited to those listed below:

1. Open source software projects (share your applications or usage)
2. Data management and workflow practices and technologies
3. Science software applications and analysis technologies
4. Software modeling and abstraction
5. Parallel Distributed Programming
6. State of the Art Digital Signal Processing and Software Defined Radio
7. State of the Art Digital Signal Processing applied to Image Analysis
(Military, Biomedical and Commercial Applications)
8. Simulation and Virtual Worlds
9. The Semantic Web and Web 2.0 Technologies
10. Cloud Computing
11. Virtualization
12. Embedded software issues, solutions and techniques
13. Reliable software formal methods (verification and testing)
14. Computer Graphics Software for Animation, Games, Special Effects and Military Scientific Simulation
15. Security, Privacy and Digital Rights Management
16. Digital Forensics and Cybercrime
17. Media compression and workflow solutions
18. Internet wired and wireless protocols
19. Software architectures and frameworks
20. Formal methods applied to test generation and improved software reliability
21. Software modeling and analysis utilizing UML
22. Technological innovations



SFV-CCC Software Seminar RFI (Continued)

Interested parties are asked to submit a short abstract describing their topic area and a description of the organization. Please indicate if your organization is interested in presenting a whole day or half day event. Are you willing to present with other similar organizations? Do you have a facility where this event can be held? Will there be any kind of tour of the facility or demonstration you are interested to conduct?

Please email submission as plain text, Microsoft Word or PDF document file to Leonard J. Reder (reder@ieee.org) by 15 March 2010. Please provide name of organization, a contact to represent the organization with their email and phone number. If you are offering a facility, please provide the full address. The subject line of your message should read "IEEE-SW-Seminar-Submit". Expect a confirmation reply within 7 business days. The form on page 4 of this solicitation is provided for ease of submission.

You are all welcome to work with our Program Review Committee that is in place to facilitate technical selection and prioritization of submitted materials. Our local sections will provide logistical support for this event. The event will be advertised a few months in advance via IEEE local email lists, the SFV IEEE local events web page, and posters. The SFV Section will help with developing a printed program, making a DVD of event materials, arranging and providing catering; and if as needed, it can also provide some venues to use for the event. Interested organizations that submit will be advised of our plans no later than May 1, 2010 for the 2010 IEEE-XXX Software Seminar scheduled for September 2010. We treasure the potential opportunity to work together and welcome your responses.

Questions concerning this request or participation on our Program Review Committee, should be sent to Leonard J. Reder (reder@ieee.org), Narisa Chu (narisa.chu@ieee.org), and Irena Kageorgis (irenakageorgis@ieee.org).



IEEE-CCC Software Symposium

Call for Sponsorship for the Seminar Event

IEEE-XXX Software Seminar Event Chairs: Leonard J. Reder & Dr. Narisa Chu

Submission Deadline: March 15, 2010 Event Date (tentative): Sept 18, 2010

(Note: this date is subject to change depending on results of this solicitation)

Please use the submission form below to sponsor IEEE-XXX 2010 Software Seminar. Deadline: March 15, 2010.

E-mail the submission form to Leonard J. Reder (reder@ieee.org) with subject line: "IEEE-SW-Seminar-Submit". Cut and paste into a blank document and complete.

Please make sure to include the following information at a minimum as outlined in the attachment form:

1. Company information

- a. Company or Organization Name: _____
- b. Contact Name: _____
- c. Contact Telephone: _____
- d. Contact Email: _____
- e. Brief Description of Company or Organization: _____

2. Presentation information

- a. Topic(s) for Presentation: _____
- b. Abstract (please attach 1/2 to 1 full page)

3. Venue

- a. Can your location be used to host an event (yes, no, maybe): _____
- b. Location Street, City and Zip Code Address: _____
- c. Will there be a facility tour given, simple description: _____
- d. Any Joint Sponsorship – other Company Name(s): _____

4. Any security requirements (e.g. U.S. Citizenship, etc., list them): _____

5. Sponsorship Status Tracking (Program Review Committee Use Only)

Sponsor's Signature: _____

Date: _____

CCC Chair Concurrence: _____

Date: _____

Review Committee Approval: _____

Date: _____

Notification to Selected Sponsor: _____

Date: _____

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
Secretary	Jerry Knotts jeknotts@roadrunner.com
Award Officer	Doug Askegard dougaskegard@ieee.org
Past Chair	Nathalie Gosset gosset@usc.edu
Sr. Representative, LA Council	Steve Johnson* sfjohnso@ieee.org
Jr. Representative, LA Council	Albert Wolfkiel awolfkiel@ieee.org
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Robotics	Karl Meier karlmeier@ieee.org

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ADVERTISE IN OUR NEWSLETTER

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, sjohnso@ieee.org

OUR MONTHLY RATES

\$250 for a full page

\$125 for ½ page

\$62.50 for ¼ page

\$20 for business card

IEEE BUENAVENTURA SECTION

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