

IEEE BUENAVENTURA SECTION

Welcome to the Buenaventura IEEE Section for April, 2009.

By the time you read this, members of the Buenaventura Section will have attended the Region 6 Spring Operating Committee meeting and the Spring Engineering in Medicine and Biology Society Administrative Committee meeting. It's very clear from both of these meetings that the economy has had a significant impact on our members. The IEEE's mission, as made abundantly clear in both settings, is to bring additional value to our members, including services to assist in these times. Only one of many such services is a 50% discount in IEEE membership dues if you're unemployed. Watch for additional programs to help.



We have some great speaker events this month. Our events are free and open to the public, and generally have dinner available. All of these events are posted on the Section calendar, available on our site.

- Apr 8: Computer / Robotics, Conejo Robotics Club and First Robotics Competition
- Apr 14: ComSoc, What Are You Doing? Figuring Out Twitter!
- Apr 15: MTTs, Mars Exploration Rover Commanding Tools
- Apr 27: Monthly Section Operating Committee meeting
- Apr 29: Mann Medical Research Organization

Some of our allied organizations are holding meetings of interest as well in late March and into April:

- Mar 28: San Fernando Valley Section: SBIR Commercialization Redux
- Mar 31: Ventura Business SpeedNetworking Event

Steve Johnson, 2009 Section Chair

40 year member of IEEE and
recently elected a Sr. Member!

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Renew your
IEEE Membership
for 2009

IEEE Buena Ventura Section Computer Society Chapter Robotics and Automation Chapter



Conejo Robotics Club and the FIRST Robotics Competition

Charles Seabury, Kevin Jordan, Steven Moore
Wednesday April 8 at 7 p.m.
CLU Ahmanson Science Building



Computer and Robotics & Automation Societies

Competitive robotics has been gaining popularity nationwide as a supplement to the conventional science, math and engineering curriculum.

Thousand Oaks, Newbury Park and Westlake Village High Schools now have competitive teams using the VEX platform, and the three schools together compete in the FIRST robotics program. We will describe the history of our program, the current activities ideas for the future as well as needs and opportunities for contributions from the engineering community. Examples of the VEX robots as well as our current FIRST Robotics Competition entry will be demonstrated.

Charles Seabury has PhD in Applied and Engineering Physics from Cornell University. His research interests have been in fiber optic and microwave devices. Three years ago as the Chair of the BVMTTS, he participated in an IEEE inspired outreach program to bring engineers into the schools and has been a volunteer mentor with the schools ever since.

Kevin Jordan is a Junior at Newbury Park High School. He has been with the robotics program for three years primarily working on the control systems and programming. He has participated in two VEX Tournaments and three FRC seasons. He spent last summer as an intern at the Jet Propulsion Laboratory in software development.

Steven Moore is a Junior at Thousand Oaks High School and has been a participant in the FRC program for three years and the VEX program for 1 year. As team leader he has coordinated the design and fabrication of this years FRC entry.

Site	California Lutheran University, 100 Ahmanson Science Bldg, 60 West Olson Road, Thousand Oaks Meetings are free, open to the public
Dinner	Pizza and soft drinks available at 6 p.m., \$5 Talk at 7 p.m.
Parking	Visitor Parking is no longer permitted before 7 p.m. on Memorial Pkwy and adjacent street. Please Park in "G" lots or stop at the CLU Welcome Center for an on-street parking permit. Map at http://www.callutheran.edu/about/campuses.php
Contact	Craig Reinhart, reinhart@clunet.edu or Karl Geiger, kgeiger@computer.org



MEETING NOTICE

Buenaventura Section's Comm Soc Chapter

Date and Time: Tuesday, April 14, 2009

Location : ITT – FPS, 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=&qty=

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

RSVP Requested only if you plan to attend: Victor S. Lin, victor.s.lin@aero.org

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 Right-To-Work documentation.

What Are You Doing? Figuring out Twitter

Speaker: Sam Cohen



Twitter asks only one question to its users: What are you doing? Whether it's "witnessing terrorist attack" or "eating breakfast", the answer often starts a conversation. This talk will focus on the seemingly simple service and show the value of micro-blogging.

Starting from basic usage, we'll discuss who uses Twitter, how it's different from traditional social networking, and how to get the most out of it. At it's most effective, Twitter can be a useful marketing tool or helpful communications hub within an organization. Other topics will include privacy, trends, and essential tools.

Bio: Sam Cohen has 10 years experience working with the web as a Web Designer and Developer. He has worked with software companies specializing in web-based applications and guided clients through the complex social networking landscape. He currently is a developer at an Los Angeles Based online advertising agency working with Fortune 500 companies and top Internet brands.



IEEE MEETING NOTICE Buenaventura MTT-S Chapter

Date and Time: Wednesday, April 15th, 2009 (6:30PM)

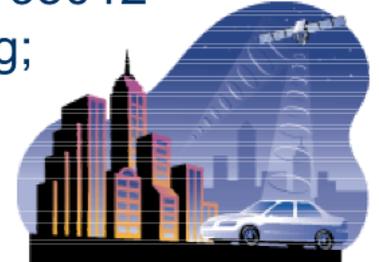
Location : Ciao Wireless

4000 Via Pescador, Camarillo, CA 93012

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

Mars Exploration Rover Commanding Tools

John Wright
JPL



Abstract—The Mars Exploration Rovers have been exploring the surface of Mars for over five Earth years. In fact, they recently completed 20x their nominal mission life of 90 sols. Early planning estimates held that approximately 30% of the mission life would be lost to planning and commanding errors where the actual rate is closer to 3%. This is primarily due to the suite of tools used for planning and operating the rovers on Mars. This talk will present the tools used for building command sequences for the rovers for traversing across the terrain and operating the robotic arm. These tools combine 2D and 3D visualization, command generation, sequence simulation and rehearsal, and playback capability to maximize the likelihood of success for sequences sent to the rovers.



BIOGRAPHY

John Wright is one of the drivers, also known as rover planners, for the Mars Exploration Rover mission. In this role, he is responsible for building command sequences for driving the rovers from place to place and for operating the robotic arm on the rovers. He has been working on MER since 2001 and has been one of the rover drivers since landing. Mr. Wright received a B.S. in Chemical Engineering from Purdue University in 1978 and an M.S. in Computer Science from Wright State University in 1984. He spent nine years at Hughes Aircraft Co. working on image generation algorithms for flight simulators before coming to the Jet Propulsion Laboratory in 1994. At JPL, his research interests have been in visualization and its applications to human-computer interaction in mission control situations. Several technologies developed under R&D work he proposed and directed have been incorporated into the software used for operating the Sojourner rover during Pathfinder, Mars Exploration Rovers, and Phoenix Lander missions and the upcoming Mars Science Laboratory mission.



Mann Medical Research Organization

Dr. Joseph Schulman

Wednesday, April 29, 2009 7 PM

CLU - Richter Hall, Ahmanson Science Building

In 1969, Alfred Mann engaged Joe Schulman, Ph.D., to take nascent pacemaker technology from the Applied Physics Lab, miniaturize it, and set up a production line to manufacture commercial quantities of the pacemaker, as well as to help develop new products. In 1973, four years and two major design changes later, the first commercial rechargeable cardiac pacemaker was implanted, and Pacesetter Systems Inc. was born. The device Pacesetter manufactured was the first pacemaker with two-way telemetry, which enabled a clinician to interrogate and review all the important electrical characteristics prior to programming. The device was also the first to use a rechargeable, long-life battery. These innovations and others developed by Pacesetter set a standard in the industry that other companies soon followed.



Dr. Schulman will discuss the history of humanitarian innovation throughout his career.

Dr. Joe Schulman, Alfred E. Mann Foundation for Biomedical Engineering

Joseph Schulman is the President and Chief Scientist of the Alfred Mann Foundation for Biomedical Engineering, a non-profit research organization devoted to development of advanced medical products. Prior to joining the Foundation in 1985, Dr. Schulman served as Vice President of Research and Development and Chief Scientist for Pacesetter@Systems, Inc., Vice President of Advanced Research and Chief Scientist for MiniMed®, Inc., and President of Neurodyne Corporation.



Dr. Schulman developed or initiated development of many leading edge medical products, such as the first reliable rechargeable cardiac pacemaker with bi-directional telemetry; a cochlear implant with bi-directional telemetry with analog and digital strategies; and an injectable neural muscular stimulator to restore function to impaired limbs and body organs. Dr. Schulman holds in excess of 40 patents and has authored many scientific, biomedical and engineering papers, posters and presentations. Dr.

Schulman is a graduate of University of California, Los Angeles, with a B.S. in Applied Physics (Major: Spectroscopy) and a Ph.D in Zoology (Major: Neurophysiology; Minor: Genetics). Dr. Schulman is Adjunct Professor of Biomedical Engineering at the University of Southern California, Los Angeles and on the Advisory Board at the University of California, Los Angeles, Neuro Engineering Program.

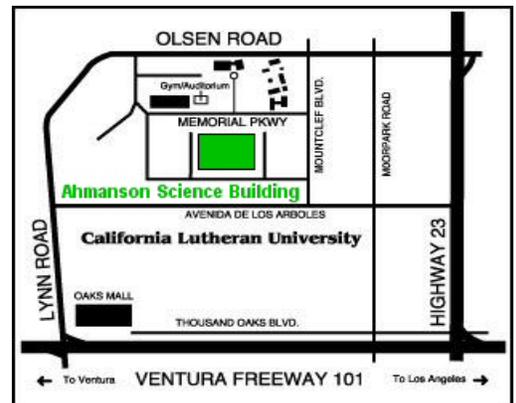
Meeting Site: California Lutheran University, 100 Ahmanson Science Building, 60 West Olson Road, Thousand Oaks
Meetings are free, open to the public

Dinner: Available at 6 p.m. for \$10 payable at the door, no RSVP needed.

Parking (Changed): Download your on-street parking pass by visiting the EMBS web site, www.bv-embs-chapter.com

Contact: Mike Shaw, mcshaw@clunet.edu

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The IEEE Region 10 Student Activities Committee is pleased to introduce **IEEE 125th Anniversary Region10 Student Congress, 2009**. Jointly organized by National University of Singapore and College of Engineering Chengannur, India this event is scheduled from 16th to 19th July, 2009 in Singapore.

IEEE is a non-profit organization and the world's leading professional association for the advancement of technology. There are nearly 80,000 student members in over 160 countries around the world. The Congress will be attended by around 150 students from across the world, screened from among the registrants based on their achievements, volunteerism and contribution towards the advancement of IEEE and will be aimed at sculpturing global student leaders to pioneer sustainable development.

The Main Highlights of the events are:

- **World @2020** - This will be a discussion forum, where the world's most esteemed Leaders from various fields of life will be invited for an open discussion with the student community.
- **Exhibition on "Technologies for Sustainable Development"**
- **Dignitaries Bench** - The IEEE dignitaries will address the delegates and share their experience in IEEE.

The congress will also be a platform for IEEE student leaders across the world to share their experiences of successful initiatives in IEEE along with leadership training sessions and group discussions to analyze and solve multicultural issues within the IEEE student community.

See the Region 10 Student Congress 2009 Web Site at:

<http://www.ieee125sc.org>



2009 Buenaventura Section IEEE Officers

We welcome your involvement – We have several positions open!

Section Office

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IEEE Buenaventura Section

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