

What is Happening in the Field of  
Autonomous and Robotic Vehicles  
In Southern California??



Underwater

Terrestrial



Aeronautic

Inter-Planetary



Deep Space

Find out at the  
Regional Symposium  
On Technologies for Autonomous  
and Robotic Vehicles

Sportsmen's Lodge  
Studio City, CA  
February 24 – 26, 2005

A Symposium Brought  
to you by  
**The San Fernando Valley  
Engineers' Council**



IN CONJUNCTION WITH...  
**NATIONAL ENGINEERS WEEK  
AWARDS BANQUET  
CELEBRATING 50 YEARS**

HONORING ENGINEERS &  
THE ENGINEERING PROFESSION

Regional Symposium on:  
Technologies for Autonomous  
and Robotic Vehicles

The Sportsmen's Lodge; Studio City, CA  
February 24 – 26, 2005

The San Fernando Valley Engineers' Council as part of its 50<sup>th</sup> annual celebration of Engineers Week is producing a regional symposium scheduled for February 24 – 26, 2005, bringing together from the Southern California area the wide range of engineering talent that is being applied to the emerging applications of autonomous and robotic vehicles. Southern California hosts a significant number of companies that are contributing to the development and deployment of autonomous and robotic vehicles for space, air, land and sea. This symposium will provide an excellent opportunity for local engineers and scientists to learn about development activities in the region, and network with one another. Further this symposium will provide a basis for engineering advancements across these important technology areas as engineers get to learn about the parallel developments from these various applications, and consider how these emerging technologies can be applied in other areas of system development. Engineers will find opportunities to think out-of-their-box as they find out what is happening in everyone else's box.

## Program Highlights

- Platforms:** Global Hawk – Alfredo Ramirez, Chief Engineer, Northrop Grumman  
Submersibles – Kevin Haley, PM & AM Research  
Intelligent Vehicles Systems – Greg Larson, Boeing
- Architectures:** Wireless Technologies, Rajit Gadh, Ph.D., UCLA  
Remote Operations, Frederick Newberg, Ph.D., Sensoria
- Sensors:** Miniature Sensors , Asad Madni, Ph.D., BEI Technologies  
DARPA Grand Challenge Experience, Rockwell Scientific
- Opportunities in the Market:** Jack Byers, Vanguard Marketing
- Engineering Education:** Ron Mullison, Ph.D., California Polytechnic State University, SLO

### Topics to be announced from Lockheed Martin and JPL

**Tour JPL** - \*Register before Feb. 10th to participate in the tour. Visit the; Space Flight Operations Facility; Spacecraft Assembly Facility; Mars Exploration Rover; the Von Karman Auditorium; Full Scale Satellites...  
\*JPL Security requires a complete attendance list two weeks prior to the tour. Persons not properly screened may not participate!

## Program

| Time  | Thursday   | Friday   | Saturday  |
|-------|--|--|---|
| 7:45  |  | Continental Breakfast  |   |
| 8:00  | Continental Breakfast  | Asad Madni, Ph.D President and COO of BEI Technologies, Inc.                                   | Continental Breakfast   |
| 8:45  | Welcome  |  | Welcome   |
| 9:00  | Alfredo Ramirez – Global Hawk Chief Engineer; Northrop Grumman | James Huffinton, Ph.D. Manager, Flight Control, Advanced Development Programs– Lockheed Martin | Rajit Gadh, Ph.D, Professor, MAE, Henry Samueli School of Engineering and Applied Science, UCLA |
| 9:45  | Jack Byers - Vanguard  | Frederic Newberg - Sensoria  | Ron Mullinson, Ph.D. Chair of Mechanical Engineering - Cal Poly SLO                             |
| 10:30 | Break  | Break  | Break   |
| 10:45 | Greg Larson, Program Manager, Intelligent Systems, Boeing      | Steve Dobbs, Systems Engineer - Boeing   | Tully Foote and Hamiao Haung – California Institute of Technology                               |
| 11:30 | Lunch  | Lunch  | Adjourn   |
| 12:45 | Depart for **JPL Tour  | Robert Miller, Ph.D. Research Specialist Northrop Grumman                                      |   |
| 1:30  |  | Terry Hansberger JPL   |   |
| 2:15  |  | Break  |   |
| 3:00  |  | TBD Rockwell Science Center  |   |
| 3:15  |  | Patrick Haley PM & AM Research   |   |
| 4:00  |  | Adjourn  |   |
| 4:30  | Return from JPL  |  |   |

\*\*JPL Tour – The tour will last approximately two hours and will include visits to the JPL museum with displays and discussion of past and current JPL robotic space exploration; the Space Flight Operations Facility from which all JPL missions are controlled and to the Spacecraft Assembly Facility in which the Mars Exploration Rovers and many earlier JPL spacecraft were built. **Required Registration Prior to Feb. 10th.**

## Registration for the Symposium includes: Continental Breakfast and Lunch

### Three Day Symposium (Thurs., Fri. & Sat. Sessions)

- Regular Registration \$250  
 Registration Before February 7th \$200  
 Student or Retiree Registration \$150

### One Day Symposium (Thurs., Fri., or Sat. Session)

- Regular Registration \$175  
 Registration Before February 7th \$125  
 Student or Retiree Registration \$75

### Thursday afternoon: Tour JPL

\*Must Register Before Feb. 10th

- Regular Registration \$50  
 Registration Before February 7th \$40  
 Student or Retiree Registration \$35

Send check payable to:

SVF Engineers' Council  
18408 Germain Street  
Northridge, CA 91326

\*JPL Security requires a complete attendance list two weeks prior to the tour. Persons not properly screened may not participate!

Discount Room Rates available at the Sportsmen's Lodge Hotel. 1-800-821-8511  
Reference "Engineers' Council" when making reservations.  
\$108 Sgl/Db1 Occ. Non-Poolview \$123 Sgl/Db1 Occ. Poolview  
Reservations after February 9th will be based on availability.

Visit the Engineers' Council Website for more information: <http://www.engineerscouncil.org/TechSymp>  
To Register or Submit an Abstract, Contact:  
Symposium Chair: Dr. Charles H. Volk Email: [Charles.Volk@engineerscouncil.org](mailto:Charles.Volk@engineerscouncil.org)

A Place to Store Your Fleeting Thoughts,  
Questions, Answers, and New Contacts

Symposium Presented in Association with the following local professional affiliations:



Society of  
Manufacturing  
Engineers



American Institute of Aeronautics and Astronautics

The Materials  
Information Society