



Silicon Valley ASME News

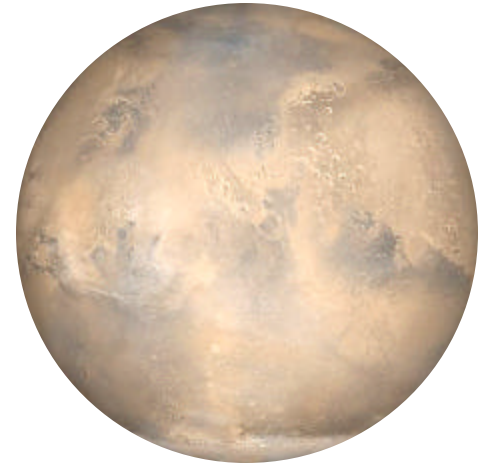
Mars on Earth

Using the Flashline Mars Arctic Research Station (**FMARS**)
to Prepare for Mars Surface Operations

Thursday, November 21, 2002

Speaker: William J. Clancey, Ph.D.

Institute for Human and Machine Cognition, Univ of West Florida



Picture of Mars by the Mars Global Surveyor Orbiter in June 2001.

In July 2000, the Mars Society constructed a simulated Mars habitat at Devon Island in the Canadian High Arctic near the Haughton impact crater, 500 miles north of the Arctic Circle. How can we exploit this research station (FMARS) to prepare for living and working on Mars? Is there a principled way of "analyzing away" the environmental and logistic differences between Devon Island and Mars, to produce data that will be valid on Mars?



FMARS 2002 Mission Patch
designed by Frank Eckardt

This presentation reviews the motivation for working in the arctic, plus the activities and results of the past four field seasons of the Haughton-Mars Project. The interests of computer scientists will be emphasized, focusing on representational tools (such as data-logging devices), the communications and computing infrastructure (especially between remote sites and base camp), and prototype telescience devices (such as "robot geologists"). Extensive photographs, video, and time-lapse photography illustrate the ethnographic approach to studying a modern field expedition. Mapping this data onto the constraints of Mars surface operations, a requirements analysis that comprehensively relates the total system of facilities, organization, procedures, and technologies will be demonstrated.

(Continues Page 2)

Note: Join us in honoring 25- and 50-year members, and newly-elected fellows of ASME during the dinner meeting.

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Details, Details:

Location:

The Wyndham Sunnyvale
6:30 p.m. Registration
7:00 p.m. Dinner (choice of chicken, pasta or vegetarian);
8:00 p.m. Guest speaker
\$25 ASME Members / \$15 Students / \$30 Non-members
(+ \$5 for attendee without RSVP)

RSVP:

Elise Engelhardt (408)360-0669 / engelhardte@asme.org

Directions:

Take 101 to Lawrence North, then take Lawrence over 237. Turn left at bottom of 237 overpass. Make next left (about 100 feet). The Wyndham is straight ahead.

*Are you a small business owner?
Have you ever thought of wanting to start a business?*

Small Business Forum

Wednesday, November 13 2002

Attend the first 2002-03 meeting of the Small Business Forum. Speaking at this event will be Dr. Joseph Olsen.

Dr. Olsen is a licensed PE... gone bad! He became an attorney after working in industry for 13 years and running his own profitable, small engineering design and laboratory testing firm for 25 more. He has managed a law office for the past 20 years, and has professionally advised and helped more than 12 start-ups get off the ground. He is presently on the board of directors of three corporations and is a strong advocate of ethical governance.

During the meeting, Dr. Olsen will address what is required to start your own business.

Please share the event with others who may not be ASME members.

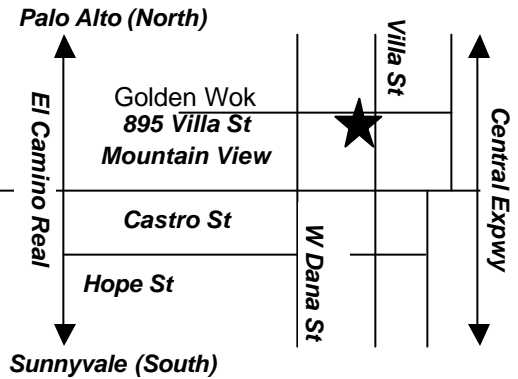
Details, Details:

Location:

Golden Wok Restaurant
895 Villa St, Mountain View
Dinner ordering starts at 6:30 p.m.
(Entire menu is open for dinner selection)

RSVP:

Russ Yarp (650)269-7204 / yarpr@asme.org



Mars on Earth

Thursday, November 21, 2002

Biography of speaker:

William J. Clancey is Chief Scientist for Human-Centered Computing in the Computational Sciences Division at Ames Research Center. He is also a Research Scientist at the Institute for Human and Machine Cognition at the University of West Florida, Pensacola. He was a founding member of the Institute for Research on Learning in Menlo Park, CA from 1988 to 1997. He received a Ph.D. in Computer Science at Stanford University in 1979, after graduating Summa Cum Laude in Mathematical Sciences from Rice University in 1974.

Involved in expert systems research in Stanford's Knowledge Systems Lab from the early days of the MYCIN Project in 1975, Clancey developed some of the earliest AI programs for explanation, the critiquing method of consultation, tutorial discourse, and student modeling. His work on "heuristic classification" and "model construction operators" has been influential in the design of expert systems and instructional programs. He has published six books, including: Knowledge-Based Tutoring (1987), Contemplating Minds: A Forum for Artificial Intelligence (1994, with S. Smoliar and M. Stefik), Situated Cognition: On Human Knowledge and Computer Representations (1997), and Conceptual Coordination: How the Mind Orders Experience in Time (1999).

Clancey is a Fellow of the American College of Medical Informatics and of the American Association of Artificial Intelligence (AAAI). He was an AAAI Councilor and the first Editor-in-Chief of The AAAI Press. He was a Senior Editor of Cognitive Science for seven years and has served on several editorial boards, including Artificial Intelligence. Recently, he has worked with the Challenger Center and TheTech Museum to convey to children the relation of scientific discovery, artificial intelligence, and space exploration.

Clancey also has experience in the practical application of AI technology as a co-founder of two companies; he has received patents for his work in qualitative modeling applied to instruction, work simulation, and financial analysis. His current research at Ames focuses on Brahms, a multiagent simulation program for modeling work practice, with special emphasis on human-robot interaction. For complete resume and current activities see <http://WJClancey.home.att.net>.



FMARS crew members take ground truth reflectance spectrometry measurements for the MISR instrument on JPL's Terra satellite.

GE Fellow to Speak at SJSU

Wednesday, November 13, 2002

Join the San Jose State University (SJSU) Student Section for light lunch and talk by a General Electric (GE) Engineer Fellow on Wed. Nov. 13 from 12 to 1p.m. The event will be held in Room ENGR337 in the Engineering Building of SJSU. The talk will focus on how academic and internship experiences fit into one's professional career and how an employer views the candidate in a job interview.

Feel free to contact Isaac Porras, Student Section Chair at (408) 563-5599 / toocool_guy@hotmail.com if you would like to attend the talk, or if you would like to arrange similar event for opportunities to interact with mechanical engineering students of SJSU.

Many SJSU students are also looking for industry mentors for advice on their class projects. Please contact Isaac if you are interested in this opportunity.

Diversity Action Grants

The Diversity Action Grants program provides funding to ASME Student Sections to sponsor projects designed to increase the participation of women and under-represented minority groups in ASME Student Section activities and in the mechanical engineering community.

Projects should be collaborative partnerships with other minority and women's engineering societies on campus, e.g., NBSE, SHPE, SWE. Further information, including examples of activities funded by the grant program may be found at <http://www.asme.org/bmw/DAGsuccessfulprojects.html>

Christmas...
already ?!



Pre-Holiday Business Meeting

Monday, December 2, 2002

Join us for this special pre-holiday event. Before our regular business meeting, we'll have an excellent chance for networking and begin the holiday celebration with cookies and coffee. This meeting will be held at the Torgon Industries training and sales office in Mountain View. Torgon will show off some of the latest software from PTC (Pro/Engineer and Pro/Intralink) and tell us about their other services.

Details, Details:

Location:

TORGON INDUSTRIES
1685 Plymouth St., Suite 100
Mountain View, CA 94043
6:30 p.m. Refreshments, Holiday Cookies
7:00 p.m. SCVS Business Meeting
8:00 p.m. Torgon Industries Presentation

RSVP:

Larry Bethel
(408) 735-3303 / bethell@asme.org

Directions:

For online to map, please refer to
<http://www.torgon.com/contacts/cont8.htm>

THE STOVE CALLING THE POT BLACK?

by Joe Olsen, D.Sc., P.E

We certainly are justified in despising those corporate managers who as in Enron, have feathered their own nests . . . or are we? When working as an employed engineer (or engineering manager) it was common practice to charge ones time to a viable contract that still had money left . . . no matter what we worked on.

In academia, research projects are charged to contracts that have money left . . . even though the effort was applied to a project that had not yet been finished, but was fresh out of money.

And, software that is vapor ware, or not quite debugged, is approved for sale every day. And, who has not assured management that the design is "almost complete" when there is much left to be designed?

Why are these ethical breaches more acceptable than the newsworthy ethical breaches of top management . . . is it only a matter of magnitude? Why do we feel "better than thou" when we participate in little ethical breaches, but they have really committed a dastardly act, simply because theirs were for millions or billions? Does magnitude really make their breaches worse than ours?

Dr. Olsen is the Professional Practice and Ethics Officer of SCVS ASME.

He can be reached at attydjough@juno.com, and he appreciates comments and responses from you.

ASME Region IX

2002- 03 Professional Development Courses



Take advantage of the following PD courses organized through the ASME Region IX Office. All course will be held on Saturdays from 9AM to 4PM.

Date	Subject	Location
Nov. 9	Dynamic Response of Structures to Shock & Vibration	CSU Fullerton
Nov. 16	Geometric Dimensioning & Tolerancing	CSU Fullerton
Feb. 1	Fundamentals of Probabilistic Mechanical Design	San Jose State Univ.
Feb. 15	Geometric Dimensioning & Tolerancing	San Jose State Univ.
March 1	Fundamentals of Probabilistic Mechanical Design	CSU Fullerton
Apr. 19	Geometric Dimensioning & Tolerancing	CSU Fullerton



Pencil in on your calendar !

For further information, please contact Fred Barez at (408) 924-4298 / barezf@email.sjsu.edu

Santa Clara University Mechanical Engineering Department

Winter 2003 Graduate Offerings



- MECH 203: Analytical Dynamics I
- MECH 254: Introduction to Biomechanics
- MECH 270: Viscous Flow I
- MECH 280: Introduction to CNC II
- MECH 293: Special Topics in Manufacturing & Materials: Sheet Metal Design
- MECH 294: Special Topics in Mechanical Design: Spatial Mechanisms
- MECH 294: Special Topics in Mechanical Design: Biomedical Devices
- MECH 296: Special Topics in Dynamics & Control: Ocean Engineering
- MECH 297: Seminar
- MECH 305: Vibrations I
- MECH 315: Advanced Digital Control Systems
- MECH 331: Structure and Properties of Modern Materials II
- MECH 338: Robotics II
- MECH 350: Composite Materials I

★ Note: Students may also enroll in the Open University. For those who wish to update their skills or learn new technologies in their current professional field without the commitment of earning a graduate degree, Open University is a great alternative in allowing such professionals to enroll in graduate level classes. ★

Please refer to our website: www.me.scu.edu for course details.

Winter Quarter begins January 6, and ends March 21.

SCU Seeks Industry Mentors for MUSE

Mentoring Underrepresented Students in Engineering

- > *Help young engineers find their way in the profession*
- > *Influence the career choices of student engineers*

MUSE is a mentoring program in Santa Clara University in which students are matched one-on-one with an industry engineer for the academic school year. The program is specifically designed to enhance student success in the engineering and computer science curricula with a special focus on addressing the challenges faced by students with backgrounds and heritages that are traditionally underrepresented in engineering fields. The one-on-one mentoring provides students with an opportunity to gain insight from someone who has gone through the engineering curriculum and whom may offer encouragement and advice that will help the students remain in the engineering field.

50 new SCU students joined the program this year, and the program is seeking industry engineers with an interest in serving as mentors to these students. Serving as a mentor typically only requires interest and enough time to support 1 face-to-face meeting each month.

Interested in this opportunity? More information and the mentor application form can be found on the program website: <http://muse.engr.scu.edu>, or by contact the program director, Prof. Chris Kitts at (408) 554 4382 / ckitts@me.scu.edu. Feel free to forward this message to anyone that might be interested.

2002-2003 Officers

<u>Chair</u>	Larry Bethel (408) 735-3303 bethell@asme.org
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<u>Dinner Meeting Coordinator</u>	Elise Engelhardt
<u>Tour Coordinator</u>	William Gray
<u>Small Business Forum</u>	Don Isaac (650) 563-9077 isaacd@asme.org Russ Yarp yarpr@asme.org
<u>Employment Networking Forum</u>	Francis L'Esperance (408) 984-0242 flesper@earthlink.net Elise Engelhardt
<u>Professional Practice & Ethics</u>	Joe Olsen, D.Sc., P.E (408) 328-9016 attydjough@juno.com
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Open Positions Awaiting Your Volunteer Effort

Nominations & Bylaws
Management Forum Chair

Do you want to design, build & test products

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? **Better ?**

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Torgon Industries

Mountain View, CA

(650) 960-3345

E-mail: swayne@torgon.com

Website: <http://www.torgon.com/>

OUR MISSION: To advance the mechanical engineering profession by providing opportunities for our members to develop professional contacts and mentor relationships, promote awareness of our profession, and expose our membership and the community to our innovative contributions to regional industries.

Advertisements Welcome!

To fulfill our mission of informing and educating our membership, we encourage advertisements in our newsletter. This also allows prospective employers and providers of goods and services to access more than 2,000 mechanical engineers around the San Francisco Bay Area. The revenue enables our section to cover operating expenses. Here are our bargain rates for ads:

Business Cards (1/12 page): \$25.00

1/8 page: \$40.00

1/4 page: \$80.00

1/2 page: \$150.00

Full page: \$300.00

Please contact Larry Bethel <bethell@asme.org> or Kwee-Yan Teh <tehk@stanford.edu> for details.

Message from the Chair...

Dear Fellow Engineers,

The economy continues to be a shadow of the boom years and our Santa Clara Valley Section follows that trend. With the total number of members less than last year, we get a smaller budget allocation from ASME headquarter. Postage rates have gone up, as have the meal prices from the Wyndham. To balance these impacts, certain measures are being taken: the December newsletter will not be published. Since we do not have a dinner in December, we don't need advance notice for that. Beginning this month, the cost for the monthly dinner meeting is increased. This will pay for the increased cost from the hotel, and the surcharge for registration at the door will allow us (and the chef) to better prepare. We hope you'll help out by registering in advance.

The December business meeting will be held at Torgon Industries and will be a social event as well as a business meeting. I hope you will drop in to meet us and see what Torgon and ASME have in mind for the new year ahead.

Thank you for your support,

Larry Bethel

Editor's note:

The only SCVS program planned for December is the pre-holiday section business meeting on Mon, Dec. 2 (see Page 3). However, if you can't make it to the meeting and we do not see you there, have a good holiday and New Year of 2003!



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Santa Clara Valley Section
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San Jose, CA 95161-1345

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The following has been quoted from the Constitution of the American Society of Mechanical Engineers, revised to November 16, 2001.

Article C5.1.2 The provisions of the Constitution and By Laws and Society Policies established by the Board of Governors of the Society shall govern the procedure of all units of the Society but no action or obligation of such units shall be considered an action or obligation of the Society as a whole.