

COLLEGE OF ENGINEERING FACULTY/STAFF E-NEWSLETTER



SAN DIEGO STATE
UNIVERSITY
College of Engineering

February 2010

In the Spotlight

- Mark your calendars for Explore SDSU Open House: **March 20, 2010**
- The Spring 2010 Faculty Meeting Schedule has been set. The meetings all on Thursdays as follows:
2/04
3/11
4/08
5/06 (Business Mtg.)

Please note that a light lunch will be served

Tracking The Dean

Date	Event
2/2	Dean Hayhurst will return from his trip to India
2/4	Dean Hayhurst will host the first faculty meeting of the semester at 11:00 a.m.
2/5	Dean Hayhurst will attend the SDSU Campaign Leadership Retreat
2/8	Dean Hayhurst will host a luncheon for newly promoted faculty at the Faculty Staff Club
2/9	Dean Hayhurst will attend a meeting at the SDG&E Headquarters to discuss

2010 College of Engineering Alumni Monty Announced

Pedro Orso-Delgado, a member of the College of Engineering Dean's Advisory Board and 1983 Graduate of SDSU, has been chosen as the 2010 College of Engineering Monty Award Recipient. Mr. Orso-Delgado received his B.S. in Civil Engineering and is currently serving as Deputy City Manager/Director of Development for the City of Santee, where he oversees planning, engineering, land development and capital projects, as well as building and information technology.

Mr. Orso-Delgado formerly served as a district director at CALTRANS where he oversaw nearly 1,400 employees who were responsible for designing, building and maintaining the freeway networks in San Diego and Imperial Counties. He managed more than \$1.3 billion worth of projects under construction and is credited with significant contributions to the field of civil engineering through innovations in his district that received world-wide recognition.

Mr. Orso-Delgado, a San Diego native, grew up in the Southern California region attending schools in both San Diego and Tijuana. He attended Southwestern Community College in Chula Vista before transferring to SDSU. He is a past member of the Board of Directors for the San Diego Association of Governments and the San Diego County Regional Airport Authority. He is also a Chapter Honor Member of the College of Engineering's Chi Epsilon Honor Society.

Pedro and his fellow Honorees will be recognized at this year's black tie Monty Awards Gala. The event is being held on April 24th at the Hotel Del Coronado.



ME Hosts Distinguished Lecture

	curriculum
2/10	Dean Hayhurst will meet with CSU Trustee Lou Monville
2/17	Dean Hayhurst will attend a farewell luncheon for the visiting Korean Student Group
2/18	Dean Hayhurst will attend a follow up meeting with SDG&E representatives here at SDSU
2/19 OR 2/22	Dean Hayhurst will attend a meeting with President Weber and Sue Kemnitzer from NSF
2/26	Dean Hayhurst will participate in the CEO Forum as part of the ASCE Multiregional Conference

Student Workers & Online Forms Supplement Computer Support

To provide support for the College of Engineering computing infrastructure, the College of Engineering has had the benefit of having two outstanding student computer techs for the last two academic years. Levi Lentz is a Mechanical Engineering Junior and Shivkumar Somasundaram is an ECE graduate student. Prior to coming to San Diego State they had extensive experience as computer technicians, programmers, and Shivkumar worked as a Software Engineer for Computer Sciences Corp.

Levi and Shivkumar have been extremely valuable support for the College helping the technicians set up computer labs, assembling equipment, installing and configuring software, troubleshooting computer issues, and working in the computer helpdesk. Recently Levi and Shivkumar have been working on our server upgrades, development of our virtual computing capabilities, and various programming projects.

We are presently looking for some Federal Work Study student workers to man the computer help desk. In addition, Shivkumar will be graduating in May, so we are also looking for a well qualified replacement for him. Please have any qualified interested parties send their resume to helpdesk@engineering.sdsu.edu

Should you need assistance with your computer hardware or software, please follow the procedures outlined in the "Computer Help" section of the College of Engineering Website or contact the Help Desk at 594-0975.

Korean Group to Study at SDSU: Potential Exchange Program



On January 21st, the Mechanical Engineering department played host to a special lecture by Professor Vijay Varadan, who currently serves as the Twenty First Century Endowed Chair in Nano- and Bio- Technology and Medicine; Distinguished Professor of Electrical Engineering; Distinguished Professor of Biomedical Engineering; Director of the High Density Electronics Center, Director of the Center of Excellence on Nano-, Bio-, and Info-Tech Sensors and Systems, and Professor of Neurosurgery at the College of Medicine at the University of Arkansas. He is also a Professor of Neurosurgery at the Pennsylvania State University College of Medicine.

Dr. Varadan's lecture, entitled **Global Cyber Diagnostics and Therapeutics for Point-of-Human Healthcare -Voyage of Nano- and Neuro-surgeons**, was given at the SDSU BioScience Center to a group of Engineering Faculty, Staff and Students.

His talk was "aimed at presenting novel engineering solutions developed recently by the author's group for many...degenerative brain disorders including PD, Alzheimer's disease, depression, anxiety, sleep apnea and sleep disorders using the fundamental research and developments in nanotechnologies and wireless sensor network".

As highlighted in his lecture abstract, "Point-of-care (POC) diagnostics promises to bring diagnostic testing out of the laboratory directly to patients and the general public wherever they may be. The key to POC diagnostics is the development of small, portable, and even implantable devices that are capable of bringing immediate answers so that health care professionals can make rapid and accurate diagnosis of disease so as to ensure the effectiveness of therapy and early detection for preventive therapy. Selected movies illustrating the applications of both invasive and non-invasive wireless nanosensor systems to patients and surgical procedures were shown at the talk.

Dr. Varadan has published more than 500 refereed journal papers and 450 refereed conference papers. He has attracted \$80,958,447 in research funding, including \$35,666,278 since July 1, 2000. This funding is made up mostly by sole-authored proposals in the area of nanotechnology, wireless point-of-care health care devices and nanomedicine. His current on-going research funding is in the order of \$18,000,000 from Global Nanomedicine Initiative to be funded by six countries starting January 2009.

Additionally, he has co-authored thirteen books with two more in press and four additional books (three sole-authored) under contract; mostly with well known publishers such as John Wiley and Pergamon Press. He was elected Fellow of ASME International, the Acoustical Society of America, the Society of Optical Engineering (SPIE) and the Institute of Physics (UK) – where he is a Chartered Physicist (the UK professional qualification for physicists).

Dr. Olevsky has Article Featured in Powder Metallurgy

SDSU Mechanical Engineering Professor Eugene Olevsky recently authored an article featured in *Powder Metallurgy*, which highlighted the sintering research and other work being done in his Powder Technology Laboratory.

His article acknowledges the fact that SDSU has become an active center for research and education in powder sintering, including the "mathematical modeling of sintering processes and a broad range of projects on sintering applications such as hydrogen storage, solar cells, the development of advanced materials for solid oxide fuel cells and the thermal management of electronic circuitry".

Dr. Olevsky's article goes on to highlight the growth in student enrollment in the mechanics of sintering course, having had 90 students complete the course over the past ten years many of which were PhD and MS students focusing on dedicated sintering research projects.

With the addition of Assistant Dean Rand German to the ME faculty, SDSU is poised to continue to increase its visibility in the field of Sintering Research.

On January 19th, Twenty-six South Korean exchange students arrived at San Diego State amidst rare torrential downpours.

Organized by Dr. Kee Moon with faculty at Kyung Hee University located in Seoul, these students will be completing a compressed four week class in precision nanotech engineering.

The South Korean students will also have the opportunity to tour various labs in the College of Engineering and interact with local students. To further expand their knowledge of mechanical engineering and American culture, field trips have been arranged to see an assembly plant at Solar Turbines, the USS Midway aircraft carrier, testing of Mini-Baja vehicles, and a tour and dinner in Old Town.

A program for a reciprocal exchange of SDSU students to attend a summer class at Kyung Hee University is in the works for next year.

Despite the very wet arrival, the South Korean students have been enjoying their stay at SDSU so far and all faculty and staff are encouraged to say hello or “An nyoung ha seh yo” in Korean if you pass them in the halls.



There is no manual for life after college. Success outside the classroom takes a combination of skill, tenacity, vision and hard work. The qualities found in SDSU’s Aztecs for Life and is the inspiration behind the eighth annual SDSU Month, which begins March 1st.

A long-time SDSU Month tradition is Explore SDSU: An Open House and special university-wide public showcase. On Saturday, March 20, admitted/prospective students, alumni and community members have an opportunity to visit campus and learn all about what SDSU has to offer. This year’s open house will feature information booths, free exhibits, tours, live entertainment and a Family Village, including a bounce house and appearances by some of PBS’ most popular characters. Rediscover your Aztec roots and join us for a fun-filled day.

Explore SDSU day is a unique opportunity for the College of Engineering to reach out to incoming freshman and give them into a glimpse of what it is like to be an Engineering student at SDSU. Department offices will be open during this time and declared majors will have a chance to learn about curriculum, programs and student organizations as well as get a tour of the College’s facilities.

In addition to the Explore SDSU Open House, the San Diego region is invited to join SDSU for the entire month in celebrating the vast contributions of our Aztecs for Life, and the synergy that links the San Diego region with its oldest and largest university. SDSU Month features 31 days of fun and stimulating academic, arts and athletic events, as well as offers from local businesses and organizations for SDSU’s growing family of friends and colleagues.

Another highlight of the month’s events is the third annual Student Research Symposium on Friday, March 5, and Saturday, March 6. This two-day event provides a public forum for SDSU students to present their outstanding research, scholarship or creative activities. Many outstanding contributions from the College of Engineering can be expected.

More information on SDSU Month 2010, including events, sponsors, media partners and special offers, will be available in February at www.sdsumont.com.

If you are able to volunteer to help with the College of Engineering’s portion of Explore SDSU Open House, please contact Donovan Geiger at 619-594-6079 or by e-mail at dgeiger@mail.sdsu.edu.



Celebrating the minds that move the world.

Research Corner—Projects Submitted & Awards Granted in January

<u>Name</u>	<u>Dept</u>	<u>Title of Project</u>	<u>FA</u>	<u>Status</u>
Dr. Ed Beighley	CCEE	Channel Routing for the Mackenzie River Basin	DOE LANL	Submitted
Dr. Asfaw Beyene	ME	ARRA: Industrial Assessment Centers	US DOE	Awarded
Dr. Asfaw Beyene	ME	Industrial Assessment Centers	US DOE	Awarded
Dr. Daivd T. Hayhurst	DNS	MESA MEP	UCOP	Awarded
Dr. Sunil Kumar	ECE	Cross-layer Design for Robust and Scalable Video Transmission in Dynamic Wireless Environments	DOD AFRL	Awarded
Dr. Fletcher Miller	ME	Developing the Narrow Channel Apparatus as a NASA Standard Material Flammability Test	NASA	Awarded
Dr. Kee Moon	ME	Program for Visiting Students from Kyung Hee University	KM/KHU	Awarded

<p>Dr. Eugene Olevsky, Co-pi(s) Dr. Gregory Kalyuzhny, Dr. Peter Salamon</p> <p>Dr. Satish Sharma</p>	<p>ME</p> <p>ECE</p>	<p>Novel Optimized Metal Oxide Sensitized Solar Cells</p> <p>High Performance UHF Antenna Subsystem for Cubesats</p> <p>LANL = Los Alamos National Laboratory</p> <p>UCOP= University of California Office of the President</p> <p>DOD AFRL = Department of Defense Air Force Research Laboratory</p> <p>KM/KHU = Kee Moon/ Kyung Hee University</p> <p>DOD USN = Department of Defense/United States Navy</p>	<p>NSF</p> <p>DOD USN</p>	<p>Submitted</p> <p>Submitted</p>
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Faculty and staff are invited each month to submit stories, story ideas and photos that you would like to see included in this newsletter. Please contact Carly at chouse@mail.sdsu.edu or at 4-0605