



# University of San Diego Engineering Newsletter

Editor: Dr. Kathleen Kramer  
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## USD Engineering Is Ranked 15<sup>th</sup> Nationally!

In October 2000, *U.S. News and World Report* ranked USD Engineering 15th in the nation among all accredited non-doctoral granting engineering programs. USD Engineering was ranked 26th in the previous year's listing.

The rankings of undergraduate engineering programs and departments are based on the judgments of deans and senior faculty. We are pleased to be included among the top schools in our category.

A complete listing of rankings and criteria can be found at the *U.S. News and World Report* website: [www.usnews.com/edu/college](http://www.usnews.com/edu/college)

### USD Engineering Majors Graduate in Four Years

Why is that newsworthy? Although four years sounds like the standard length of study for a full-time student to earn a Bachelors degree, USD Engineering alumni know that earning a dual BS/BA has always taken at least 4.5 years. The class of 2001 is unique in the history of USD Engineering in that it will include **three** students who have managed to graduate in just 4 years.

What happened? Did engineering get easier all of the sudden? Not really, but curricular changes have been implemented to move required courses earlier in a student's studies and make more of the later courses electives. The result is that it is possible for ambitious students who take classes during summers and intercession to complete their requirements sooner. This year's class includes four ISE majors and two EE majors who expect to be graduating "early", three with prior coursework and three who really did it in just four years.

### You Are Invited to the Engineering Open House

On **Thursday, May 10, 12:00 to 1:30 pm**, ISE and EE students from four different courses will be displaying projects. All presentations are in an **open poster session and demonstration format** on the second floor of Loma.

Alumni are warmly invited and interested members of the public are welcome. Please contact the USD Engineering Department at 619-260-4627 for more information. Refreshments will be served. This event will feature:

- ❖ Frosh Design Projects – "NIFTY" projects include an elevator, a drawbridge and a carwash.
- ❖ Senior EE Design Projects – See results from seniors' first semester of their EE design project.
- ❖ Senior ISE majors will be presenting their human factors and simulation projects.
- ❖ Junior ISE majors will be presenting their manufacturing projects.

This has required some special offerings of the senior project courses, one this spring for ISE majors working with the San Diego County Department of Health and Human Services and another this summer (our first summer engineering course) for EE majors featuring a joint industry project with SAIC designing part of an advanced communication system.



*Class of 2001 Industrial and Systems Engineers*

### **The 2<sup>nd</sup> Class of ISE Grads by Dr. Rick T. Olson**

The second class of Industrial and Systems Engineering graduates expects to include the first engineering students to complete their USD degrees in only four years. Ika Santoso and Christian Geist started as Freshmen in Fall 1997, but took advantage of summer and intersession classes to finish quickly. Not needing to take a foreign language may have helped. Christian is German, has lived around the world, and speaks five languages. Ika grew up in Indonesia. They are joined by Alex Rosas and Patrick Yrigoyen who transferred to USD to study ISE. Alex grew up in Mexico and Patrick is from Peru so perhaps ISE really stands for "International Students of Engineering".

For their senior project, the students have been investigating the operations of a public health clinic run by the San Diego County Department of Health and Human Services. They have looked at the arrival patterns of patients, the interaction between clerks and patients, and the flow of medical records through the clinic to help the clinic managers better understand the system.

### **Class of 2001 is the Biggest Yet for USD Engineering**

Early graduations have boosted the class of 2001 into the largest class in the history of USD Engineering – 20 students, including 16 EE majors and 4 ISE majors.

What will some of the engineers in the class of 2001 doing?

- ❖ Amanda Bishop (EE) has accepted a position as a digital design engineer at TRW's Avionics and Systems Division in Rancho Bernardo. She will be working on ASICs and FPGAs for advanced aircraft.
- ❖ James Cena (EE) is heading to the USS Fife DD 991, based in Everett, Washington. This Fall, he will be sent to Rhode Island for training and later he will be sent to Charleston, South Carolina for Nuclear Power School.
- ❖ Susanna Denton (EE) will be stationed on the USS Stethem DDG 63, a San Diego based ship. She is currently in Rhode Island finishing up Surface Warfare Officer School.
- ❖ Gislene Douek (EE) has accepted a position in San Francisco as a hardware engineer with Agilent Technologies.
- ❖ Michael Hawkins (EE) has been working as an Applications Engineer for Motorola since Fall 2000.

- ❖ Mark Heffernan (EE) is attending graduate school at San Diego State University.
- ❖ Sally Mahdavi will continue her work as an engineer at SAIC.
- ❖ Dureid Rabban hopes to attend graduate school in January 2002.
- ❖ Michella Reyes will continue her work as an engineer with SAIC.
- ❖ Ika Santoso (ISE) has applied to graduate school at USC.
- ❖ Nathan Schneider (EE) has been commissioned into the Navy and is currently attending flight school in Pensacola, FL.
- ❖ Adam Whalen (EE) will be commissioned into the Navy and just received his orders to attend flight school this July.

### **Congratulations to Garry Frocklage**



Garry Frocklage, Engineering Technician, has been an important member of our department since 1989. He has been studying part time for his degree since 1990. Last Fall, Garry was initiated into HKN, the national honor society of electrical engineers. This Spring, he will receive his BS/BA degree in electrical engineering.

### **Introducing Dr. Mikaya Lumori**

Dr Mikaya Lumori joined USD in September 2000 as Associate Professor of Electrical Engineering. Prior to USD, Dr Lumori held academic and research positions in London, England and Brussels, Belgium for about 10 years.



*Dr. Mikaya Lumori, Associate Professor of EE*

He earned the BSEE and MSEE degrees from Manchester University, England and the PhD degree in Electrical Engineering from the University of Arizona, Tucson.

His research interests include electromagnetic hyperthermia for cancer therapy, system identification and microwave engineering.

Apart from long distance walking, Dr Lumori's hobbies include chess, travel and driving. He looks forward to many years ahead at the University.

### **Introducing Dr. Leonard Perry**

The newest member of the ISE faculty is Dr. Leonard Perry, Assistant Professor of Industrial & Systems Engineering.

Dr. Perry earned his Ph.D. in Industrial Engineering (Quality Improvement) at Arizona State University where he conducted his research with Dr. Douglas Montgomery, who is an author of 12 books and over 100 technical papers. Dr. Perry received his M.S. in Industrial Engineering from Clemson University and his B.S. in Industrial and Systems Engineering from Ohio University. Dr. Perry's current and past research interests lie in the area of process improvement via quality improvement methods especially in the area of applied statistics. Before returning to academia, Dr. Perry worked in industry for



*Dr. Leonard Perry, Assistant Professor of ISE*

five years with the consulting firm Electronic Data Systems where he worked extensively in the area of information systems. He helped AT&T migrate databases on large mainframes, setting up and maintaining local area networks for several customers, and programming operating systems with IBM.

Dr. Perry spent most of childhood in Singapore and living abroad. His employment and academia has provided the opportunity to reside and travel all over the United States and the world. He enjoys traveling and outdoor activities such as hiking, mountain biking, and snowboarding in the winter.

### **Introducing Ms. Bernadette Simionidis**

The newest member of the department is Bernadette Simionidis, our new Administrative Assistant.



*Ms. Bernadette Simionidis*

Bernadette is originally from Jersey City, New Jersey. She reports that she is the mother of a wonderful, handsome eight year old boy. She will be a new bride on July 12<sup>th</sup> when she marries her fiancé, Pablo Maldonado, in Founders Chapel. She is still working towards a BA in Philosophy and hopes to later earn a graduate degree this area. Professionally, her background includes sales, management and administrative-related duties.

Her interests include reading Plato for fun, listening to a different CD every day and any outdoor recreational activity. She also enjoys preparing and cooking gourmet meals.

### **Faculty Happenings**

The Engineering Department will be short two of its faculty next year while Dr. Tom Schubert and Dr. Michael Morse are both taking yearlong sabbaticals.

While on sabbatical, Dr. Morse plans to study certain areas of electrical injury, the effects of electricity on the human body, and issues of legality associated with electrical contact. The projects he plans include an analysis of electrical injury distal to the pathway of electrical contact, a study of the ways in which electrical injury can masquerade as Carpal Tunnel Syndrome (CTS), and an analysis of electrical injury involving children and facilities owned by public utilities.

Dr. Tom Schubert will be spending his sabbatical investigating two topics related to the frequency response of amplifier circuits and the scattering of electromagnetic waves by spherically layered dielectric media. The electronics topics are related to his previous work in the field & the USD electronics courses. The "spherically layered dielectric media" is a commercially-used close approximation to a Luneburg lens: Dr. Schubert's interest in electromagnetic scattering originated in



graduate school (his Ph.D. dissertation was related to the propagation of polarized images through layered flat dielectric media), and has continued in his industry and consulting work.

Dr. Schubert is also negotiating with the objective of part-time teaching at the University of Applied Sciences (Fachhochschule) at Ravensburg-Weingarten, Germany. Fortunately, most of the instruction is in English & Dr. Schubert's 35 year old "third-semester competency" in German will only be tested in less formal settings.

## **Alumni News**

### **Class of 1991**

Fred & Michelle Helfert Simanek continue to live in Thousand Oaks, California with their beautiful 2 1/2 year old daughter, Jeanette. Fred has formed a real estate syndication that recently acquired 4.92 acres of vacant land in Mesa, Arizona to develop a self-storage facility. Groundbreaking will be this summer.

### **Class of 1992**

Michaela Wright is the Director of Sustainable Design Services at HDR Architecture. She is living in Omaha, Nebraska.

### **Class of 1993**

Robert Boerner is living in Pacific Beach with his wife, Laura, and their dog, Trader. After working at a ski area for five wonderful years, he took a job as a project engineer at Sabina Motors, a controls company that built systems and drives for ski lifts. Six months later, the company went under. Now he works for himself as a mortgage broker. He says, "For me, playing with money is more fun than playing with electrons."

Mauricio Lopez-Hodoyan is now Marketing Manager for Qualcomm CDMA Technologies (an ASIC division within

Qualcomm). He works on competitive analysis, marketing research, business plans, and new product introduction.



*Donald Jenkins (Class of 1994)*

### **Class of 1994**

Lt. Daniel Ettlich is continuing in the Navy and is currently an ROTC instructor at the University of Arizona in Tucson, AZ. He has participated in ironman triathlons and recently married a fellow triathlete.

Andrew Isaakson is now the Customer Support Manager for Machine Vision Products. His company has moved its offices to Carlsbad, CA to expand its manufacturing capabilities.

Don Jenkins is attending the Naval Postgraduate School in Monterey, CA. He is studying for his Masters of Science in Operations Research. He is also training for the San Francisco marathon. He recently successfully completed the CSUMB half marathon in under two hours. His marathon training is part of Team in Training (TNT) a division of the Leukemia Society and is part of his commitment to raise money for this worthy cause. He is also enjoying some well-deserved time off with his family.

Derek Kranig is working in Minnesota at LASERDYNE PRIMA (formerly GSI Lumonics), an Italian-based company. He should have his hot rod back on the road in June (after rebuilding it from a crash at the

dragstrip in 1999). He plans to take it to the track this July and see what the results are of the improvements and upgrades he has done. He is still playing hockey every Tuesday night for fun and have been for the past few years. "Springtime in Minnesota, what a beautiful time of year!"

Dominic Pimentel started a new job in February at Monterey Design Systems, based in Sunnyvale, CA. He and his wife, Arlene, are expecting their second child this fall.

Lt. Michael Shultz is finishing his the Navy career, having served as a nuclear submarine officer aboard the USS Buffalo and a human resources officer for the submarine fleet. He is looking forward to future opportunities in project management or technical marketing.

Lisa Smith Corcoran and her husband Jim have moved into the house in which she grew up, in Oakwood, Ohio. They both work at Delphi Automotive Systems and are the proud parents of two-year-old Alexandria Leigh (Lexi). They are expecting their second baby this summer.

### **Class of 1995**

Jorge Geremia is a Design Engineer at Applied Microcircuits Corporation in San Diego.

### **Class of 1996**

Capt. Daniel Leuthner is living in Laguna Nigel, CA and is stationed at Camp Pendleton as an officer in the Marine Corps.

Michael Mahan is in the insurance business (hard to believe as that is) in his father's company. This company may be merging with a larger brokerage in the next few months. The office has moved several times, most recently to Anaheim. To avoid moving from San Diego County to Orange County, Mike takes the train from Vista daily. He reports, "When I first got into insurance other people I talked to would quip that once you get into insurance, you

can't get out. I'm beginning to think they are right."

### **Class of 1997**

Christine Bridewell Keefe is an engineer at Lucent Technologies. She married Greg Keefe, a software engineer, last summer. She and Greg are expecting their first child this fall.

Scott Denton is a Senior Design Engineer at Applied Microcircuits Corporation in San Diego. Last August, he married Dr. Clarissa Reese, a researcher at Scripps. They are now living in Carlsbad, CA.

Lt. Tom Mack and his wife, Kary, are the proud parents of a bouncing baby boy. Thomas Joseph Mack, Jr. was born on September 25, 2000. Tom, Kary & Joey are residing in Corpus Christi, Texas where Tom is serving in the United States Navy.

Joy Sotic has returned to the San Diego area along with her husband, Dennis S. Balagtas, and their daughter, Melissa. Joy is now working at Cubic Defense Systems as a software engineer, where she interned as an undergraduate. Joy appreciates the family-friendly environment at Cubic and is working hard to balance family and career.

### **Class of 1998**

Brandon Knaggs is now working for Logicon, a Northrop-Grumman Company. He is a software/systems engineer writing code in C/C++. He has also taken some classes offered by the UCSD extension program. He plans to continue in his studies this way and perhaps later enroll in a masters program, either in computer engineering or computer science. In December 2000, he married Natalie Vowels, a 1998 USD Mathematics/Computer Science graduate. They are currently living in San Diego.

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***Mauricio Martinez (Class of 98)***

Mauricio Martinez has worked at Peripheral Engineering since September of 1998. He is now Assistant Director of Engineering/ R&D. Peripheral Electronics is a leader in OEM integration. They design and manufacture after-market components that interface into OE electronics in Vehicles. Their biggest products are CD-Changer interfaces. They design protocol converters that allow a person to buy an after market CD-Changer and install it in a car without changing the factory radio. Peripheral gets no help from automobile manufacturers, so Reverse Engineering is a big part of the job.

### **Class of 1999**

Michael Dunn is a Sales Engineer at Agilent Technologies in San Diego. He was spotted recently at USD's annual Evening with Industry representing his company.

Forest Stephens is working as a Hardware Engineer at ViaSat, Inc. in Carlsbad. He and his fiancée, Sherry Klomp, another USD graduate, plan to marry this summer. He is also enrolled in the Masters of Engineering program at UCSD.

Zaldy Valenzuela, when last heard from, was stationed in San Diego onboard the

USS Bonhomme Richard. He has had a chance to see places like Singapore, Thailand, Hong Kong, and various hot spots in the Middle East. He also reports that he is engaged to be married.

### **Class of 2000**

Thomas Guzman is finishing up the Engineering portion of his training at the Navy's Surface Warfare Officer's School (SWOS). He will be stationed on board the USS Sides (FFG14) out of the San Diego for 18 months before heading to Nuclear Power School in Charleston South Carolina.

Ricardo Valerdi is working at Motorola in their two-way radio group as a Systems Engineer. He is also pursuing a Masters Degree in Systems Architecture and Engineering at USC. He reports that he is installing some solar panels on the roof of his condo to make it through this summer's blackouts and that he applied for Survivor III.

Ryan Ingram is at Boeing (formerly Hughes) in El Segundo. He reports that he is enjoying his work there and has already participated in four different microwave circuit design projects.

Stephen Reichert is working as an Applications Engineer at Applied Micro-circuits Corporation in San Diego. He is in the evaluation board design group. He reports, "The good news is I'm still liking it a lot, I'm still learning all the time, and I've even managed to get myself into the critical path on some key projects."

Stephen Muller is working at Sun Micro-systems in San Jose, CA.

Illya Ninichuck is working in Orange County at Agilent Technologies in the Electronic Product Sales Group as a Field Engineer.

David Huang is studying for his Masters degree in electrical engineering at the University of Wisconsin, Madison.

Tiare Wright is working as a design engineer at Raytheon in El Segundo. She has been taking graduate courses in electrical engineering at USC.

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*If you have any news for our next issue, please email to [kramer@sandiego.edu](mailto:kramer@sandiego.edu). We would like to hear from all our alumni. Please update your contact information via email to the editor or by calling Bernadette at 619-260-4627*

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