Included in this issue:

◊ A More Artistic Side to Engineering

◊ Medal for Heroism Awarded to USD Engineering Student

◊ Latest Rankings—We are 29th!

◊ Engineering Majors on USD’s Championship Football Team

◊ USD Engineering Student Places 5th in World Series of Poker

◊ New Engineering Advisory Board Formed

◊ Dr. Rick Olson and San Diego Botball

Regular features:
- Latest Senior Projects
- Class of 2006: Where are they working and studying now?
- Faculty Updates
- Alumni News
In this issue:

A More Artistic Side to Engineering.................................................................1

Engineering Student Receives Medal for Heroism........................................2

Latest Ranking for USD Engineering.............................................................2

Engineering Scholar-Athletes on USD’s Championship Football Team........3

Engineering Student Places 5th in World Series of Poker............................3

USD Engineering and Industry
  New Engineering Advisory Board Formed.................................................4
  Evening with Industry Receives Strong Alum Support.............................5

USD Engineering and the Community...........................................................5
  Dr. Rick Olson and San Diego Botball.....................................................6

Latest Senior Projects
  – including the Snow Jet, our first ever ME project.............................6

Honors and Awards
  – including Dr. Thomas Kanneman’s retirement as Emeritus.................8

Class of 2006 – Where are they working and studying now?......................9

Dr. Susan Lord is Co-Chair of Frontiers in Education 2006.....................11

Lean Six Sigma Certificate at USD...............................................................11

New Faculty and Staff................................................................................11

Faculty and Alumni News
  – over 50 updates from across every class........................................12

Engineering Insights is an annual publication of the University of San Diego Department of Engineering. News or Updates? E-mail usdengr@sandiego.edu, call Lorena Silvas at 619-260-4627, or submit at http://www.sandiego.edu/engineering/alumni.
A More Artistic Side to Engineering

USD engineering students are unique in the nation in that they earn a dual BS/BA in engineering rather than the standard BS degree other students earn. The BA side of their degree results from a combination of intensive technical education and the USD emphasis on a broad liberal education. A few of our graduates, including Carlos Dominguez and Dustin Mendes, take the BA side of their degree even more seriously and are able to combine their artistic interests with their technical skills in the professional careers.

Carlos Dominguez (EE ’01) is a “Technical Artist” at High Moon Studios, part of Vivendi Games. His work is with both the technical and art side of game development. He designs technical solutions, such as scripts or programming, to help the artists create and place their work in the game. Says Carlos, “It is fascinating to work with designers, character and environment modelers, animators, and the cinematics team.”

For a Technical Artist, a typical day is far from “typical” and combines in-depth technical research on various applications programs, such as Maya, working with colleagues to test various solutions in progress, meetings with artists and help them with questions or problems, a break to play Ultimate Frisbee with colleagues, and tackling what new ideas the team may want to put in a game. The day also includes 30-minutes of SCRUM meetings. SCRUM is an important part of the software development process and a brief video of this is available at http://www.highmoonstudios.com/insiders/downloads.

When the work is done, and before going home, Carlos may even get to play a couple of games of Counter Strike, Call of Duty, or World of Warcraft.

Carlos reports, “I have found my dream job here... The talented people I get to work with every day... all makes for an amazing and creative environment.”

Dusty Mendes (EE ’05) is an engineer with RLS, Inc., based in San Francisco. The 8-person firm integrates technology and architecture by designing “technology spaces” in conjunction with Project Architects, Electrical Engineering firms, Mechanical Engineering firms, and General and Trade Contractors. These “spaces” are of...
Artistic Side (cont’d from p. 1)
a very wide variety, including data centers, laboratories, broadcast facilities, surgery centers, distance learning environments, and more. Their client list includes more typical users of technology and more glamorous names like Sony, Disney, PDI/Dreamworks, and various television and radio stations.

On the creative side, Dusty finds his work to involve art in three different ways: drawing sets, architecture, and the user interface of control systems. The quality of the drawing sets that are created for a major project require not only in the accuracy of the content but strong aesthetic characteristics as well. Dusty credits his art background helps in achieving the look that they want and definitely thinks that when done correctly our drawing sets are works of art. The architectural aspect, overseen by the Art and Interior Design Team, is the part of his projects that Dusty claims to know the least about but is the most interested in. RLS has created some unique designs with floating pieces of glass, hidden I/O panels, modular credenzas, and more. The third area where art overlaps with technical requirements for Dusty is in the design of the “front end” of a control system, such as the AT&T Lightwave Project. These touch panels or web-browser-based user interfaces require graphic design that is somewhat similar to web design but most incorporate the active elements of an interface controlling working equipment. Dusty reports, “The work is fast paced and I am surrounded by some of the most talented, well-rounded people I have ever met.”

Latest Rankings

On August 18, 2006, Us News and World Report released its rankings of non-doctoral granting engineering programs. USD Engineering was pleased to be tied for 29th in this category. There are approximately 352 schools offering accredited engineering programs that do not offer doctorates in engineering.

Engineering Student Receives Medal for Heroism

Ian Hardey is a Mechanical Engineering major at USD who completed part of his U.S. Navy Reserved Officer training last summer aboard the USS Essex, an amphibious assault ship. While visiting the Japanese Imperial Palace Gardens in Tokyo, Mr. Hardey and his colleague midshipman, Jeffrey Kinney, observed unsuccessful efforts by Japanese police to rescue a young man flailing in the waters of the imperial moat. When the victim disappeared under the water, Mr. Hardey and Mr. Kinney immediately jumped off a nearby bridge into the water and brought the man to the surface. They then assisted Japanese emergency response teams in bringing the victim, 19-year-old Akito Sano, up the sheer wall that surrounded the moat. Unfortunately, rescuers were not able to save Mr. Sano’s life. Japanese police and Mr. Sano’s parents thanked Mr. Hardey and Mr. Kinney for their heroic efforts.

For professional achievement in selflessly attempting to rescue a drowning victim, showing personal initiative and unswerving devotion to duty and reflecting great credit upon himself in keeping with the highest traditions of the US Naval Service, Mr. Hardey was awarded the Navy and Marine Corps Achievement Medal. This medal, green with orange stripes, is awarded to junior officers and enlisted personnel who distinguish themselves with outstanding professional achievement or leadership.
Engineering Scholar-Athletes on USD’s Championship Football Team

This fall’s USD Toreros football team is ranked number one in the Sports Network’s I-AA Mid-Major Top 10 Poll and was the winner of the Pioneer Division League championship. Team members included several engineering majors who, by successfully combined their athletic achievements with the demands of pursuing a BS/BA in Engineering, are truly scholar-athletes.

Last year’s championship team included engineering majors David Allen, Vincent Atofau, Ryan Echer, Chris Gianelli, Hanner Hart, Robert Jones, Fred Montgomery, and Alex Rice.

Robert Jones, an Electrical Engineering senior who is a safety on the team reports, “I have always enjoyed the challenges and rewards of being a student athlete. Although both school and football require many sacrifices, both have become integral parts of who I am.”

Jones thinks Peyton Manning said it best when he said “It would have been a lot easier to have been a football player and not just a student and conversely it would have been much easier to have just been a student and left the football for some other day and time. But it wouldn't have been as joyous, as rich, or quite candidly, as humbling to have been one without the other.”

Some of the engineering majors on the football team include (from left to right) Top row: No 7. Hanner Hart, No. 10 Ryan Echer, No. 28 Robert Jones; Bottom row:No. 45 Vincent Atofau, No. 95 Chris Gianelli, and No. 41 Fred Montgomery

Engineering Student Places Fifth in World Series of Poker

Paul Sexton is an Electrical Engineering major who is a member of the USD class of 2006. While schoolwork in such a demanding major might keep some students too busy for much else, Paul, much to the surprise of many of his professors and friends at USD, is also a famous poker player, known to many fans and players as Paul “The Hammer” Sexton. Tuning on ESPN throughout the past year, many were thrilled to discover their colleague was a serious contender and television celebrity in the World Series of Poker (WSOP). With approximately 5,000 players competing at no-limit Texas hold ‘em, this is the world’s largest poker event. In the 2005 WSOP, Paul placed 5th among the vast field of players, winning $147,145. This year’s WSOP just wrapped with celebrity player Paul again placing strongly in the huge event, coming away with $38,759 in winnings.
USD Engineering is pleased to announce its new Engineering Advisory Board. Its purpose is to help the Engineering Programs form plans and implement strategies for growth that serve the mission of the university and the San Diego technical community.

Kevin Conlon is the former CEO of Palomar Technologies and currently chairs an AeA CEO roundtable. In 2002, Mr. Conlon was named as one of Fortune Magazine’s “Heroes of U.S. Manufacturing” in honor of innovations in manufacturing at Palomar Technologies where complex manual processes were replaced with high-precision automation. Prior to joining Palomar in 1997, he spent 18 years in Silicon Valley, where he held a variety of management and executive positions in the semiconductor capital equipment industry. In addition to 10 years at Applied Materials in product marketing and operations management positions, he also was director of marketing for Novellus Systems and executive vice president of sales and marketing for Genus Inc. Mr. Conlon received a BSEE from the U.S. Military Academy at West Point, and an M.B.A. from Santa Clara University.

James (Jim) V. Mazzo is chairman, president and chief executive officer of Advanced Medical Optics (AMO). As leader of AMO, he leads a company of more than 3,600 employees around the globe. Under his leadership, AMO stock has increased in value by more than 500 percent and two major acquisitions, of Pfizer’s ophthalmic surgical business and of VISX, have occurred. Mr. Mazzo honed his management skills during a 22-year career at Allergan, where he held a variety of executive-level positions and eventually became the company’s corporate vice president and president of the ophthalmic surgical and contact lens care businesses. Mr. Mazzo serves or has served on a variety of key industry boards, including AdvaMed, IIIC, and OCTANE. He also serves on the University of California at Irvine (UCI) Dean’s Board of Directors’ Executive Committee, UCI Dean’s Board of Business and Engineering, and is a trustee at the University of San Diego.

Chuck Pateros is an Engineering Manager and Member of Technical Staff at ViaSat, Inc. At ViaSat, Dr. Pateros has provided both technical and program management for commercial and military programs involving digital signal processing and modem development and production. He is currently providing technical support at the corporate level, directing new concept and intellectual property development. His Ph.D. (1993, Rensselaer Polytechnic Institute, Troy, NY) involved the invention and development of a multiple access digital receiver. Dr. Pateros chairs the USD Electrical Engineering Advisory Board and is active in a variety of engineering professional and educational organizations. He received his BS and MS in Electrical Engineering from Rensselaer Polytechnic Institute.

Bill Spadafino is currently the Area Business Unit Manager for the Blending and Shipping Area at Chevron’s El Segundo Refinery. Set amidst homes, industries, and famous beach areas, the refinery is the largest one on the west coast, employing more than 1000 people. Mr. Spadafino is a civil engineer by training with an MBA and has worked for Chevron since 1980.

Jarvis Tou is the Vice President of Product Management and Marketing at Staccato Communications, Inc., a leading innovator in ultrawideband (UWB). At Staccato, he leads product marketing, product line management, and applications engineering efforts for all-CMOS ultrawideband integrated circuits (ICs) and development tools. Mr. Tou was previously vice president, marketing and product management, at Bluetooth leader Silicon Wave where he oversaw the launch and marketing of second- and third-generation Bluetooth technology. Mr. Tou has held numerous management positions throughout his career at Intel and Motorola in the areas of embedded processor, personal connectivity, and mobile phone products. Mr. Tou holds a BSEE from the University of Michigan and a MSEE Purdue University. He has earned an MBA from Arizona State University and completed the Executive Development Program at University of Pennsylvania’s Wharton School.

Becky Vincent is the owner of Vincent Enterprises, a business providing engineering and business services to technology companies and the government. Ms. Vincent has more than 20 years of industry experience and her company’s work in product and technology development includes systems, hardware, and software engineering in diverse technologies for renowned technology companies. Established in 2000, Vincent Enterprises is experienced in designing from concept for unmanned vehicles, electronics and avionics, space systems, and C4ISR. Ms. Vincent holds a BSEE from Carnegie-Mellon University. She earned a Marketing MBA from SDSU and is a graduate of the UCSD Executive Program for Scientists and Engineers.
Strong Alumni Support Makes Evening with Industry 2006 a Success

The 24th Annual Society of Women Engineers (SWE) Evening with Industry (EWI), a joint USD-SDSU-UCSD SWE event, was held on Thursday, February 16, 2006 and featured representatives from thirteen companies. Among the highlights this was the strong participation of USD alumni including Sally Mahdavi (EE '01) and Michelle Reyes (EE '01) representing SAIC and Forrest Stephens (EE '99) and Melissa Glazebrook (EE 03) representing ViaSat.

Adrianna Zammit (EE '04) of Northrop Grumman gave the keynote speech “Engineering Effectiveness: Making a Successful Transition.”

SWE Advisor Dr. Lord and student organizers Lori Rasmussen, Stephanie Hay, Katrina Hearn, Donna Chavez, Dana Hernandez wish to thank all of the alumni who helped in getting their companies to participate in this year’s event. Let us know if you would like to represent your company for the 2007 EWI! Contact usdengr@sandiego.edu for more information.

USD Engineering and the Community

In addition to San Diego Science Alliance activities (see separate article on next page), USD engineering faculty and students participate in a variety of activities that serve the community by providing educational activities for the K-12 set. One of our most well known activities is the annual Walk on Water Competition. The 2007 Walk on Water Competition will be held at USD on Saturday, April 21. Engineering students and faculty also participate in tours of our laboratories and demonstrations on the campuses of middle schools and high schools.

Pictured at right is one recent tour by children from the Carlton Oaks School. Says teacher Cameron Williams, “We had such a wonderful tour of the campus today, thanks to you! I have been touring USD with my fifth grade students for several years, and this was the first time that we actually had the opportunity to spend time speaking to professors and learning about topics that are taught in a college course. Having graduated from USD, I have a lot of understanding and knowledge of the campus and its programs to share with my students, but you have allowed them to truly get a feel for what awaits them after high school.”
Dr. Rick Olson and the San Diego Botball Competition

USD Engineering works with USD’s Institute for College Initiatives and the San Diego Science Alliance (SDSA) to support science and math literacy within San Diego County. Dr. Rick Olson, Associate Professor of Industrial & Systems Engineering leads USD Engineering involvement with robotics activities as a leading organizer for the San Diego Botball competition. Botball is a hands-on experience in robotics designed to engage students in the practical applications of engineering, science, and math.

After volunteering to assist in the Southern California Botball competition for 7th-12th grade students in 2004, Dr. Olson was struck by the positive reaction of the students, “the predominant mood among the students was celebration. They designed the robot, they wrote the programs (in C no less), they learned how to use servos and photosensors, and they discovered unexpected ways of solving problems. There were 30 teams and 30 different ways of doing things. And they were all great.”

Dr. Olson suggested that the Botball tournament be held at USD and teacher training workshops and the tournament have been held here since 2005. Dr. Olson says, “This has entailed a fair amount of work at times, but that pales compared to the psychic payback I get from working with and, truth be told, learning from the kids. When someone shouts as their robot follows a line for the first time I’m reminded of the joy of learning new things.”

Latest Senior Projects

Students in all three engineering majors have a curriculum that culminates in a capstone team design experience. The projects featured here include the first ever USD Mechanical Engineering project and a record number of Industrial & Systems Engineering Projects. The EE and ME projects have completed their first of two semesters and will be finished this fall. The ISE projects are one-semester in length and have each already been completed.

UC Bookstore Expansion (ISE)

In the next few years, the University Center will be expanded. One aspect of this will include moving the bookstore from Loma Hall into the UC. Stephanie Hays, Lori Rasmussen and Leah Ribble analyzed bookstore operations to determine how they can be done more efficiently, and how they might need to change after being moved into the UC. This analysis included recommendations for upgrading the computer systems used to place and track orders, saving space by replacing static shelves with moveable shelves in the store rooms, and an assessment of the impact that splitting the bookstore between two flows would have on material flow, security and the organization of departments in the bookstore.

In-patient Emergency Department (ISE)

This group (Tolu Abe, Sarah Barrera, and Rose Smith) worked at Scripps Mercy Hospital in Chula Vista to improve current operations in: patient flow into the Emergency Department by applying Six Sigma methodology to define, measure, analyze, and improve their processes to eliminate excessive in-patient wait times in the Emergency Department and variation within direct admission process.
Latest Senior Projects (cont’d)

Improving Patient Length of Stay in the Emergency Department (ISE)
This group (Ryan Gallagher, Giovanni Marsano, and Erika Lopez) worked at Scripps Mercy Hospital in Chula Vista to improve current operations in: patient flow out of the Emergency Department by applying Six Sigma methodology to define, measure, analyze, and improve their processes to reducing the length of stay (LOS) for patients in the emergency department.

Quadrature Hybrid Coupler (EE)
The 4-person project involves the design, simulation and manufacture of a 3-dB Quadrature Hybrid Coupler with DC Crossover. The project is sponsored by Northrop Grumman and has been provided access to Northrop Grumman lab facilities as well as state-of the-art software tools, including HFSS from Ansoft. If successful, the product from this project will be available for military applications, such as data uplink in military aircraft. Project faculty advisor, Dr. Mikaya Lumori, is particularly thankful to USD alum Adrianna Zammit of Northrop Grumman for her mentorship of the project.

One Stop Student Center (ISE)
After the bookstore leaves Loma, the University intends to combine the offices of the Registrar, Special Sessions, Financial Aid, Student Accounts and Campus Card into a One Stop Student Center (OSSC). By putting many transactions on-line and consolidating the offices, students will be able to perform the most common tasks much more easily. Graduating ISyEs Matt Nelson, Santiago Ortiz, Ryan Shivers and Felipe Wong conducted a study to assess whether the space currently housing the bookstore can accommodate OSSC. Their work began by determining which tasks performed by each office can be performed on-line. They then developed a layout that provides space for each office in a new combined facility. Finally, they designed the portion of the OSSC where students will come to perform those transactions that can’t be done online. This included creating a simulation model that can be used to decide how to staff the OSSC.

Care Management (ISE)
This group (Holly Lyons, Nancy Rodriguez, and Jen Taburiaux) worked at Scripps Mercy Hospital in Chula Vista to improve their care management programs. Such programs have become increasingly popular in hospitals across the nation because the goals are to provide high-quality patient care while reducing hospital expenses. This study consisted of documenting and assessing the efficiency of current programs and was based upon the use of Six Sigma process improvement methodology and the DMAIC. The analysis was geared to two important goals of care management: to reduce the patient stay at the hospital and to prevent patients from being readmitted without a primary care physician.

Snow Jet (ME)
The first-ever Mechanical Engineering project, the Snow Jet, is being advised by Drs. Ming Huang and David Malicky. The student team consists of Enrico Landis, Tyson Vogel, and Susan Williams – the entire first graduating class of Mechanical Engineers. (continued on next page)
Latest Senior Projects (cont’d)

Currently, transportation in the snow is limited to. The first ever Mechanical Engineering senior project design is intended to provide an alternative means of snow transport that differs from bulky, cumbersome vehicles, like the snowmobile, or methods that require gravity or human power to use, such as skis, snowboards and snowshoes by providing a design that will enable the user to ride on flat or sloped terrain with little effort required.

The vehicle, dubbed a snow jet by the 3-person student team, will be small and easy to maneuver both on the slopes and when moving it in and out of vans, trucks or trailers.

Honors and Awards

Dr. Thomas A. Kanneman, Professor of Electrical Engineering, was named Professor Emeritus as he retired from fulltime faculty service at USD after a long career of teaching, scholarship, and service at the end of academic year 2005-06. Dr. Kanneman has had the longest and most sustained impact on USD’s engineering programs of anyone on the faculty. He was the original Director of Engineering and first member of the faculty, beginning nearly twenty years ago, having been hired away from Arizona State University where he was Professor and Chair of the Department of Electronics and Computer Technology.

Professor Kanneman has been a consistent developer and advocate for strengthening USD’s engineering programs both to the benefit of students and the professional engineering communities throughout the region. He has been a very visible force in the community by having served as the president or chair of various professional associations, where he sustains a visibility for USD and the quality of its engineering graduates. The award of the status of Emeritus to Dr. Kanneman was recognized at reception on May 19, 2006.

Congratulations to Dr. Leonard Perry, for his promotion to Associate Professor of Industrial and Systems Engineering.

Dr. Ming Huang, Dr. Susan Lord, and Dr. David Malicky received the inaugural American Society of Engineering Education (ASEE) New Engineering Educators Division Best Paper Award for their paper “Problem, Project, Inquiry, or Subject-Based Pedagogies: What to do?” presented at the 2006 ASEE Conference in Chicago, Illinois. Each received a plaque and a monetary award.

USD Students honored at American Society of Mechanical Engineers Conference

By Cheryn Engebrecht and Frank Jacobitz

American Society of Mechanical Engineers (ASME) is one of USD Engineering’s newest student organizations. Although new, it is quite active and has been receiving strong support from ME Advisory Board members, including Philip Young of Hamilton Sundstrand and Steven Albright of Zimmer Dental. Members of the chapter attended the ASME Spring Student Conference at Santa Clara University and entered in two competitions.

Ian Metzger’s research (along with assistance from Cheryn Engebrecht and Colin Porterfield and supervised by Dr. Frank Jacobitz) on the blood vessel topology and blood flow of rat spinotrapezious muscle fascia won second place in the poster presentation competition. Their research on this topic is also currently being reviewed for publication by the Journal of Microscopy. Project Sidewinder, an off-road vehicle project built from scratch, was presented by Cheryn Engebrecht (with assistance from Ian Metzger and Guy Robertson and supervised by David Malicky) and won second place in the website competition. With just a few modifications, this vehicle may also be entered in the 2007 Mini Baja Competition in South Dakota.
Class of 2006

The USD Engineering class of 2006 includes all students completing their requirements in December 2005, May 2006, and in Summer 2006. This year’s class of 28 grads set a new record for size, both overall and in the number of Industrial & Systems Engineering majors. There were 13 EE majors and 15 ISyE majors, including 5 summer 2006 graduates in ISyE. Commencement this year was particularly memorable because Ms. Patricia A. Woertz, CEO of Archer Daniel Midland Company (ADM) – and a parent to one of our own engineering graduates – was the commencement speaker. Also, for the first time engineering majors receiving their BS/BA in Electrical Engineering or in Industrial & Systems Engineering received their diplomas separately from other majors. We are looking forward to next year’s commencement which will include our very first graduating class of Mechanical Engineers.

![USD Engineering Class of 2006 at Commencement](image)

What is the Class of 2006 doing now?

Sarah Barrera (ISyE) is an Order Fulfillment/Production Process Improvement Supervisor at Avon Products in Pasadena, CA.

Baxter Box (EE) is a Research and Development Engineer for Respiratory Technologies Corporation. He works on the design of a wireless pH measuring device used to monitor patients who have a range of acidic causing problems in the esophagus. Problems such as GERD and Acid Reflux have affecting more and more people in the US and the causes are still in question. The current focus on the device is to improve the antenna distances of their device’s transmitter and receiver, as well as designing an interface for their measuring device to work with PSG sleep centers.

Brett Chicotka (EE) is a Design Electrical Engineer at General Atomics Aeronautical Systems, Inc. His group works to design and build the Predator A & Predator B aircraft. His current focus is on PWB design and modification as well as some applications in power supply design. Other projects include aircraft batteries and alternator control. Fellow USD engineering alumni Marko Kalemkeris, Sam Stewart and Jerad Peterson are all part of the same Electrical Engineering Design group.

Ryan Gallager (ISyE) has joined the Department of Navy Naval Acquisition Intern Program at SPAWAR Systems Center in San Diego as an Industrial Engineer doing business cost estimating and financial management. He is pleased to have gotten to enjoy the summer backpacking across Europe (Ireland, Amsterdamm, Copenhagen, Bergen/Oslo, Munich, Vienna, Budapest, Venice, Rome, Paris) prior to starting his new job.
Class of 2006 (cont’d)

Erika Lopez (ISyE) is studying abroad in Madrid, Spain while working as an Intern at Empresarios Agrupados. At this Spanish company, her work involves the calculation of metal structures for the Engineering Design Department. She hopes that she will have the opportunity to stay longer.

Paula Lucchini (EE) is a Field Control Engineer at Chevron’s Energy Technology Company, the company that she has already completed two internships with. In her first three months, she has had the chance to travel to 3 different U.S. locations and will doing more traveling in the near future.

Holly Lyons (ISyE) is a Buyer for the Supply Chain Division of Goodrich Corporation.

Giovanni Marsano (ISyE) is currently working in two companies with two different positions. He works for Sony Electronics as a Business Planner. He also works for Capital International Assets Corp as a Hedge Fund Treasurer Officer.

Joshua Martin (EE) is an Engineer for Cedric Chong & Associates, Inc. He is happy to be putting his engineering degree to use at this building firm back in his native Hawaii.

Nick Moiseff (EE) is a Software Engineer at Northrop Grumman whose work focuses on systems. He is working within the mission control systems sector at one of their San Diego facilities.

Santiago Ortiz Monasterio (ISyE) is an Analyst at Dadoo Y Asociados in Mexico City, Mexico.

Christine (Eri) Nishiyama (EE) is a Biomedical Instruments Applications Specialist and Sales Engineer at Hamamatsu Photonics. She is surprised to find her work to be more focused on the business side, but she reports that she loves her job, including the opportunity to travel and the financial rewards. She plans to apply to Medical School next year.

Robert Raney (EE) is an Associate Engineer at Advanced Medical Optics (AMO). This is the same company where he was employed as an intern. AMO is a medical device company based in Orange County; their most well known products include lasers for eye surgery.

Lori Rasmussen (ISyE) is an Associate Process Engineer in the Manufacturing Leadership Program at Calloway Golf in Carlsbad, CA. Calloway Golf is a global, high-tech company utilizing the latest materials, ideas and equipment to make and sell the high-performance line of golf equipment.

Veronika Rice (EE) is commissioned as an Ensign into the US Navy. She is assigned to the Main Propulsion Department of the USS San Jacinto (CG 56) a Ticonderoga class cruiser with homeport of Norfolk, VA.

Christopher Robinson (EE) is currently assigned to the Naval Air Station Pensacola, Florida undergoing military flight training. He has finished his first phase of training (Introductory Flight Screening [IFS]) and is looking forward the start of Aviation Preflight Indoctrination (API) classes this summer.

Nathan Roberts (EE) is currently working at Lattice Semiconductor in Oregon. He is a Product Development Engineer and he gets to work with designers as well as work in the laboratories on devices such as FPGA and PLD boards. He really enjoys the variety he finds in his work. His current assignment is for a new generation FPGA device that is scheduled to be available to customers in January 2007.

Nancy Rodriguez (ISyE) will be attending University of California, Los Angeles. She plans to earn her PhD in Applied Mathematics.

Paul Sexton (EE) will be playing poker in Las Vegas through August, but will begin his quest for an EE position following the championship.

Ryan Shivers (ISyE) is a Process Engineer at Invitrogen in Carlsbad, CA. Invitrogen provides products and services that support academic and government research institutions as well as pharmaceutical and biotechnology companies.

Rose Smith (ISyE) is a Systems Engineer at Raytheon in San Diego. Her work involves systems and software integration for navy ships. After she was hired at Raytheon, Rose owed fellow USD engineering grads at Raytheon, Jared Smith, Miguel Sosa, and Russell DeCaprio cookies, as is the ISyE tradition. She has been doing baseline change management and requirements management. She will also be traveling to Pascagoula, Mississippi to the shipyard to do some inspection work on one of the actual ships.

Jennifer Taburiaux (ISyE) is a Quality Engineer for Texas Instruments. In this position, she is responsible for developing, applying, revising, and maintaining quality standards for processing materials into partially finished or finished wafer fabrication products. Her focus is on the design and implementation of methods and procedures for inspecting, testing, and evaluating the precision and accuracy of products or production equipment.

Abe Tolu (ISyE) is a Performance Improvement/Risk Management Coordinator at Scripps Hospital in Chula Vista.

Marcos Vargas (EE) is a Research and New Product Development Engineer for the Product Technology Center at Kyocera America, Inc. in San Diego. This position is related to the work he and his team performed on their senior project with Kyocera. He works on electrical modeling and measurements of electronic packages using Kyocera America’s advanced ceramic packaging technology.
Welcome Our Newest Faculty and Staff

Dr. Claribel Bonilla

Dr. Claribel Bonilla, Assistant Professor of Industrial & Systems Engineering is our new tenure-track faculty member. Dr. Bonilla comes to USD from Intuitive Manufacturing Systems where as an Application Consultant provided on-site customer support for complete Intuitive ERP implementations, including training, project management, and business and manufacturing application consulting. Prior to Intuitive she worked for John Deere and left the company with a proven track record of implementing lean manufacturing strategies to achieve improved product quality, reduced costs and increased productivity.

Dr. Bonilla holds a Bachelor's Degree in Industrial Engineering for the University of Texas El Paso, an MBA in Supply Chain Management from Arizona State University and a PhD in Industrial Engineering Texas A & M University. In addition, she is an ASQ Certified Six Sigma Black Belt. Dr. Bonilla’s teaching research focuses in areas of Manufacturing and Production Systems.

Dr. Matthew McGarry

Dr. Matthew McGarry, Assistant Professor of Mechanical Engineering, studies manifold design for PEM fuel cells, the water and thermal management of PEM fuel cells, the fluid mechanics of the systemic circulatory system, and ocular fluid mechanics. He arrives at USD after working as an Assistant Professor of Mechanical Engineering at the College of New Jersey for two years. In addition to his prior academic experience, Dr. McGarry has had two engineering positions in industry. Dr. McGarry received

Lean Six Sigma Certificate at USD

In summer 2005, the Lean Six Sigma program was initiated at USD. The program is led by Dr. Leonard Perry, Associate Professor of Industrial & Systems Engineering and Mr. Keith Boyle. The Lean Six Sigma instructors average twenty years experience with a minimum five years practical experience as Master Black-Belts. Instructors are recognized Lean Sensei and Certified Six-Sigma Black-Belt professionals that consistently rate extremely high in post training evaluations. For more information on the certificate programs available, please contact Leonard Perry at 619.260.7558 or by email at laperry@sandiego.edu.

Dr. Susan Lord is General Co-Chair for FIE

Dr. Susan Lord, Associate Professor of Electrical Engineering, and Dean David Hayhurst of SDSU are the conference general co-chairs for the Frontiers in Education (FIE) being held in San Diego in October 28-31, 2006. This conference continues a long tradition of promoting the widespread dissemination of innovations that improve computer science, engineering, and technology (CSET) education. The technical program includes over 400 paper presentations, panels, special sessions, and workshops. Over 600 engineering educators, including several from USD Engineering, are expected to attend and address the theme of identifying and surmounting international, cultural, and social borders.

Dr. Susan Lord is General Co-Chair for FIE

Dr. Susan Lord, Associate Professor of Electrical Engineering, and Dean David Hayhurst of SDSU are the conference general co-chairs for the Frontiers in Education (FIE) being held in San Diego in October 28-31, 2006. This conference continues a long tradition of promoting the widespread dissemination of innovations that improve computer science, engineering, and technology (CSET) education. The technical program includes over 400 paper presentations, panels, special sessions, and workshops. Over 600 engineering educators, including several from USD Engineering, are expected to attend and address the theme of identifying and surmounting international, cultural, and social borders.
his Ph.D. in Mechanical Engineering from the University of Vermont, a MME from the University of Delaware, and a BME from the Georgia Institute of Technology.

Mr. Thomas J. Guzman
Thomas J. Guzman is our newest department technician and returns to the Department of Engineering after honorably completing five years of service as an officer in the U.S. Navy. During his years as a navy officer, Tom first served on the USS SIDES (FFG 14), a guided missile frigate, as the First Lieutenant and Command Legal Officer and then later on the USS SHRIKE (MHC 62), a mine hunter, as the ship's Operations and Training Officer.

In addition to this experience, Tom has a BS/BA in Electrical Engineering from the University of San Diego, completed as part of the BOOST (Broadened Opportunity for Officer Selection and Training) program, and two years of experience in the U.S. Navy as a Sonar Technician in the submarine service. He was born in Riverside, California, grew up in what he describes as the "bustling metropolis of Deming, New Mexico" and first joined the navy at the age of 17. Tom and his wife, Mina, also a USD alum, live in Mission Hills, San Diego, with their two toy poodles. Tom hopes to attend graduate school at USD in the near future.

Faculty News

Engagement at 30,000 Feet
Dr. Leonard Perry, Associate Professor of Industrial & Systems Engineering, became engaged to Lindsey Anderson while they were on their way to Singapore, literally! Fiancée Lindsey tells the story, "While in Hong Kong we had been visiting several jewelry stores, since there was one on every corner and Lenny is always looking for another watch. When we left Hong Kong for Bangkok, Lenny asked to get upgraded to First Class...On the flight, I was reading a book and Lenny got up to go to the bathroom (really to let the flight attendant know that he was going to propose and asked her to bring champagne and take pictures of the proposal). I was totally shocked at 30,000 feet he was asking me to marry him and putting one of the rings I had tried on in Hong Kong on my finger."

Alumni News
USD Engineering is proud of the close ties of our alumni. This year's alumni news includes updates from more than 50 of our graduates, representing each of our 15 past graduating classes. Who is going to Stanford for graduate school? Who is living in Indonesia? Who is back in San Diego working in broadband? Check out the latest alumni news.

Class of 1991
Fred Simanek (EE) has a company, FritzCo Real Estate, LLC, that specializes in self-storage realty and is co-founder of MyNextDeal, a search engine that deals exclusively with commercial real estate listings.

Class of 1992
Michael Buckley (EE and MSGL) and Teresa (Tierney) Buckley met in the USD master's in global leadership program in 2000, and married in August 2001. They have a daughter, Sarah, born Aug. 24, 2002.

Class of 1993
At Qualcomm, Mauricio Lopez-Hodoyan (EE and IMBA) is Director of Marketing for the chipset
division and works in the Strategy and Analysis team. Mauricio was married last November to Gabriela Holguin in Tijuana, Mexico. Ronald Montehermoso (EE) continues to be an officer in the U.S. Navy. He was deployed to Iraq about 2 months ago and expects to be there for about a year. Rolando Ogot (EE) is an engineer with Conexant in San Diego. Conexant produces semiconductor solutions for broadband communication.

Class of 1994

Daniel Ettlich (EE), in the U.S. Navy, and his family are now living in Silverdale, WA. He is the Planning Officer at the Intermediate Maintenance Facility Bangor. He finds this to be a great job. He and his family are happy to be back in the northwest. After completing his graduate studies at the Naval Postgraduate School in Monterey, Don Jenkins (EE) is completing his twelfth year as an officer in the U.S. Navy. He is currently stationed in the UK. Dominic Pimentel (EE) and wife Arlene just celebrated their tenth anniversary in Hawaii with the children Alisa and Troy. Dominic is a Senior Applications Consultant at Synopsys, Inc., provider of tools and systems for digital system-on-chip designs. He spends his spare time surfing, playing soccer, and playing basketball.

Class of 1995

Jorge Antonio Geremia (EE) is a Staff Design Engineer at ARM, Inc., in San Diego. He and wife, Kathleen Kramer, are expecting their third child this October.

Class of 1996

Dan Leuthner (EE) recently moved to Chicago, IL. He works as a field engineer for FM Global, an insurance company. He and fiancée, Kim Lickteig, are getting married this month. Kim is in the business development arm of Abbott Labs and used to be a cancer researcher. Langford Wasada (EE) is still in San Diego working as an engineer at Broadcom.

past 6 years, he has been working on Bluetooth, a wireless communication protocol, doing embedded firmware and other system work.

Class of 1997

Lieutenant Commander Tom Mack (EE), U.S. Navy, is working on his MSEE at the Naval Postgraduate School in Monterey. Tom is married to wife, Kary, and they have two sons, Joey (5) and Billy (2).

Class of 1998

Vu Lac (EE) has been a Technical Sales Manager at Fujitsu Microelectronics America for 6 years. He is based in Waltham, MA and lives in Nashua, NH. In April 2006, Vu married Caroline Nguyen in San Francisco. (Vu did submit a lovely picture of he and Caroline that will run in the next edition – we found his picture in a Fujitsu ad and are including it in this issue – see next page.)

Class of 1999

LT Juan Elizarraras (EE), in the U.S. Navy, is currently deployed in Afghanistan. His family, with wife Sonia and his two daughters, lives in the bay area. Bryan Espiritu (EE) is now an engineer for 2Wire, a provider of DSL modems and gateways to providers such as SBC, Telmex, and BT. Although he was hired as a test engineer initially, he had grown into another role as Head of Global RMA Operations which has increased his travels substantially to countries like Mexico and Malaysia. He and his wife just bought a home in the San Jose area. Zaldy Valenzuela (EE), in the U.S. Navy, has survived the Navy Postgraduate School and
earned his MS in Electrical Engineering. The focus of his masters thesis was on computer design, specifically high-speed numeric function generators. He is currently stationed at Ships Repair Facility Yokosuka, Japan, helping to ensure that the fleet out there is operationally ready. He and his wife now have a son, Zachary.

Class of 2000

Stephen Muller (EE) married a high school friend, Laura Quinn, on July 22 of this year in Moraga, California at St. Mary's College of California. She is a PE teacher for at Holy Spirit school, which is a K-8 Catholic School in San Jose. They live in Santa Clara in a house they just bought. He is still working as a Hardware Engineer at Sun Microsystems on high speed serial interfaces, such as SERDES. Steve Reichert (EE) is still at AMCC working as a board designer/debugger or a product engineer depending where the action is. He has a girlfriend, four cats and recently started surfing. He has also started a side project with a few friends designing/selling t-shirts(www.briefcasedreams.com). He is waiting for the tech bubble to re-inflate so he can retire early. Ricardo Valerdi (EE), at MIT, is working on a book entitled Systems Engineering Cost Estimation with COSYSMO that will be published by Wiley in 2007. The book is based on some of the work he did for his doctoral dissertation at USC. He is also a member of an NSF-funded project at MIT that explores the impact of Software Engineering research on practice. He is looking at the field of software resource estimation and how it has evolved since the 1950s. He also reports that he’s become a Red Sox fan since moving to Boston. Sally Mahdavi (EE) is taking on a new position at Spawar Systems Center, San Diego, and will be working in the field of cryogenics and high/low temperature superconductivity.

Class of 2001

Amanda Bishop (EE) left Northrop Grumman Space Technology (Radio Systems) in July to move to Palo Alto where she will be earning an MBA at Stanford University. James Cena (EE), in the U. S. Navy, passed his engineer qualifying exams and is in the progress of transferring to Penn State to teach at their ROTC unit. The engineer qualifying exams are a milestone one needs to continue on with nuclear power in the U.S. Navy. His new job is as an Associate Professor for Naval Science. He will be teaching the Navigation and Naval Operation classes. James is also currently working on my Masters of Engineering Management from Old Domion University. He reports that wife Melanie and daughter Deanna are doing well and love the area. Susie Denton (EE) received her MS in Electrical Engineering with an emphasis in Signal and Image Processing from UCSD this past June, and is a continuing her studies towards a Ph.D. Most of her research is concerned with ultrasound and acoustic imaging. She is now working for the Mission Systems department of Northrop Grumman Company in San Diego. Carlos Dominguez (EE) is working for High Moon Studios in Burbank, CA, as a Technical Artist. Gislene Douek (EE) is a Business Development Manager at net2phone. Christian Geist (ISE) graduated this summer with an MBA from the University of the Pacific.
Class of 2002

Alcino Azevedo (EE) is a software engineer at Lockheed Martin Orincon in San Diego. He will begin his studies toward an MS in Computer Engineering this fall. Jacalyn Thomas (EE) continues to work for Northrop Grumman’s Space Technology division and plans to begin study toward her MS in EE this fall. She and fellow engineering alum Alcino Azevedo will be tying the knot on August 26th at the Holy Cross Church in Santa Cruz, California. Jacalyn will be (and the Dept of Engineering is quite sure of this) stunning in two gowns, one by designer Vera Wang and the other Monique Lhuillier. Fellow engineering alums Chris Smith, Rasheed Behrooznia, and Oscar Arzu will be in the wedding party. Engineering alum and EEAB member Ellina Pacis is their wedding planner.

Rasheed Behrooznia (EE) is a software engineer at Lockheed Martin Orincon. He was married last year to Michelle Bipat with fellow USD engineering alumni Oscar Arzu, Chris Smith, and Alcino Azevedo in his wedding and at least eight others in attendance. The class of 2002 is a tight group with several taking annual summer vacations to Mexico together. Tony Mireles (EE) began work with Raytheon in Fort Wayne, Indiana last year. He and his wife, Robin, are expecting our second child in late October. Ian Nauhaus (EE) has been doing his PhD work in the Visual Neurophysiology Lab at UCLA. Christopher Smith (EE) has designed and tested the digital portion of a transceiver module for the F-35 which is nearing production at Northrop Grumman. He recently became engaged to Melanie Espanola and they plan to be married in 2007. Jaclyn Sonico (ISE) continues to work at Callaway Golf in Carlsbad where she is the Manager for Custom Club Manufacturing. In September she will begin managing Callaway’s newest Management Leadership Program hire; new USD ISE graduate Lori Rasmussen. For helping Lori land a job at Callaway, Jaclyn will be receiving a batch of banana bread. Michael Spencer (EE) is an engineer with Spawar Systems Center in San Diego but is currently stationed in Australia. He has been sent to work with the Royal Australian Air Force as a Field Service Engineer for Link-16 and MIDS (The US Navy system he specializes in). He recently returned from the RAAF Base Darwin in NT, Australia where I supported datalink operations with the Royal Australian Air Force. The operation was during Exercise Pitch Black 06, a biennial multinational exercise that this year contained components from Australia, England, Singapore, Thailand, France and the USA.

Class of 2003

Joseph Herrera (ISE) began work at Phillips Industries as a Manufacturing Process Engineer and will begin studying towards his MS in ISE at the University of Southern California this fall. Eric Hohla (ISE) is the West Coast Field Engineer for UPS Freight and is officially stationed in Rialto, CA as. For the last two months he has been in Richmond (VA), Fresno, and in Dallas honing his skills in the LTL (less than truckload).
Class of 2004

Melody Ablola (ISE) has been working as a consultant for Corrpro where she spent a month in Alaska; just long enough to catch a King Salmon in the town of King Salmon. Melody's globe-trotting will continue since she has just accepted a position with ARUP, a global design and consulting firm based in New York, where she will provide logistics consulting to clients around the world. Aaron Milam (EE), working as an engineer at NASA's Jet Propulsion Laboratory, spent the months of January and February in San Jose, Costa Rica, as on-site engineering support for the Aura Validation Experiment. CR-AVE (Costa Rica Aura Validation Experiment) is a NASA mission that uses a converted WB-57 Bomber to conduct high altitude atmospheric measurements over the Galapagos Islands. Aaron has also been back and forth from Houston and New Mexico working on high-altitude-balloon-based measurements. He is also enrolled at Loyola Marymount University earning an MS in Engineering. Eric Petersen (EE) is an Applications Engineer at KVD Co. in Carlsbad, CA. He puts together test applications for customer products (almost exclusively in the Borland C++ environment). He is required to work closely with customers and this means travel up and down the west coast. He likes the small company atmosphere that allows him to learn daily and doesn't confine him to just one task area-- he also has designed circuit boards. Joshua Rehfeld (ISE), in the U.S. Navy, graduated from flight school and began flying the T-34. He is currently in Kingsville, Texas flying T-45's in advanced flight school. Phillip Thrash (EE) works in Hawaii. His first position was at Dick Pacific as a Project Engineer. Dick Pacific is the largest general contractor in Hawaii and is a part of Dick Corp., based in Pennsylvania. His first project was the construction of high end luxury condos in Wailea on the island of Maui; the project name is the Wailea Beach Villas. More recently, Philip became a Project Engineer at Swinerton Builders. He is currently working on a project at Kaanapali beach's Maui Marriott Ocean Club on Maui. (see photo on next page) Adrianna Zammit (EE) is working as a RF Design Engineer at Northrop Grumman along with other projects such as SI Training/Process Lead and Six Sigma. [USD's Electrical Engineering Program is also particularly grateful to Adrianna for her work mentoring and supporting one of the current senior projects.] She is involved in various outreach events such as a partnership between Northrop Grumman and Gompers High School in order to promote
science and engineering to underprivileged high school students. She is also working as a real estate broker for Prudential California Realty helping people to buy and sell homes in San Diego County.

Class of 2005
Matthew Dominick (EE), U.S. Navy, completed primary flight school in Corpus Christi, TX and has moved to Kingsville, TX after being selected for TACAIR (advanced jets). He will be in Kingsville for one year to complete the training and hopes to be winged a Naval Aviator in July 2007. Zlatko Filipovic (EE) has just accepted a job from Micro Mobio Corporation as an RF Power Amplifier Designing Marketing Engineer. His new job is based in Palo Alto, CA. Micro Mobio designs advanced RF ICs for mobile communications systems. Erin Fullinwider (EE) is enjoying work at the Syska Hennessy Group. She designs power and lighting for stadiums, broadcast facilities, studios, etc. in their Sports and Entertainment group. Some of her current projects are a new training facility for the LA Clippers, renovation of the Rosebowl, and the new downtown LA ESPN Broadcast Studios. So far, her work has allowed her to travel to a number of cities across the U.S. She works with Gerry Rodrigues, the USD Alumni Representative for Los Angeles, and reports that he keeps her informed of all the Alumni events going on in LA. She passed the Engineer-in-Training exam and plans to take the Professional Engineering license exam in October 2007. Outside of work, she ran the LA Marathon in March, participated in the Wildflower Triathlon in May, and did the Camp Pendleton Mud Run in June. She was up in San Francisco on business and got to see fellow engineering alum Dusty Mendes. Kimberly Kawahara (EE) was promoted to Staff Engineer at Maui Electric. In her work, she helps plan Maui's transmission and distribution system, provides technical assistance to the Distribution Engineering Division regarding customer projects, and maintains substation drawings and equipment records. Robert Knuff (ISE) is currently working for USD as a Desktop Support Technician. Ebice Minjares (EE) is an Associate Systems Engineer for Cubic Defense Applications. Brian Momeyer (EE) and Tom Davis (EE) are design engineers at SoftMax, working on advanced signal processing applications. Yoshitaka (Bob) Yano (EE) has been accepted to graduate school in Electrical Engineering at a number of places he applied to and has decided to go to UCLA. He plans to earn an MS in Electrical Engineering in the area of Communication and Telecommunication, but hopes to also earn a PhD in Electrical Engineering. He also recently passed the Engineer-in-Training Exam.

Matthew Dominick (on right) and his formation partner just after their formation flight student solos.

News or Updates? E-mail usdengr@sandiego.edu, submit on web at http://www.sandiego.edu/engineering/alumni or call Lorena at 619-260-4627.
Engineering Insights is an annual publication of the University of San Diego Department of Engineering. News or Updates? E-mail usdengr@sandiego.edu, call Lorena Silvas at 619-260-4627, or submit at http://www.sandiego.edu/engineering/alumni.