Dear friends of the department,

2009 has been an interesting and exciting year for our department. In spite of the economic challenges all around us, freshmen enrollment is steady and we are able to attract highly-qualified freshmen into our programs. In addition, over 90 percent of our spring 2009 graduates have realized their career objective either by accepting full time employment or pursuing graduate studies. During fall 2009, the first batch of students were admitted into the Civil Engineering program, which temporarily resides in our department. The department has hired two new faculty members, Drs. Arif Malik and Michael Swartwout. You will find more information about them in this newsletter. The department is planning to hire two more faculty members for fall 2010. Our students continue to participate actively in AIAA, ASME and SAE sponsored events, including the formula race car. In addition, our students are taking advantage of valuable summer industry internship experiences in increasing numbers. Our dedicated faculty and staff continue to move the department forward by focusing on students, funded research and scholarships. Dr. Sridhar Condoor is spearheading Engineering Entrepreneurship via lectures to freshman classes, Innovation to product (I2P) competitions and funded research. We appreciate your communications with us and always like to hear from you, and we welcome your feedback. On a personal note, effective September 2009, I have accepted the position of Associate Dean while continuing to serve as interim chair. I take this opportunity to wish you all a very happy, peaceful holiday season.

Best regards,

K. Ravindra

MESSAGE FROM THE INTERIM DEPARTMENT CHAIR

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FACULTY & STAFF NEWS

Two professors join the Aerospace and Mechanical Engineering Department

Arif Malik, Ph.D. and Michael Swartwout, Ph.D. joined the department this fall.

Dr. Malik’s research focuses in the areas of design, manufacturing, computational mechanics, reliability-based optimization, finite element analysis process modeling.

Malik comes to SLU from Wright State University in Dayton, Ohio. Much of Malik’s work focuses in the area of sheet rolling. He received funding from the National Science Foundation for his proposal, “Simulation of Coil Wedge Effects in Sheet Rolling,” awarded by the Manufacturing, Machines and Equipment program. Malik consults with the steel manufacturing industry to improve the process efficiency and quality of rolling mills.

Malik is a member of many professional organizations, such as the American Society of Mechanical Engineers, the American Institute of Aeronautics and Astronautics, the Association for Iron and Steel Technology, Tau Beta Pi Engineering Honor Society and Sigma Xi Scientific Research Society.
Dr. Swartwout comes to SLU from Washington University in St. Louis. Swartwout’s research focuses on developing the design space and control methodologies for extremely short-duration aerospace missions, such as spacecraft inspection, in-space robotic assembly and coordinated unmanned aerial vehicles.

Swartwout is working to receive funding for the University Nanosatellite program through the Air Force Office of Scientific Research. He is collaborating with Dr. Sanjay Jayaram, in the department on space systems research and development of these small satellites. Swartwout has presented many seminars, including at Boeing Space and Intelligence Systems Group, where he spoke on the topic, “The Bandit Flight Demonstration: Proximity Operations and Docking on a 3-kg Spacecraft.” Recently Swartwout received a grant from the Mission Space Grant Consortium. This grant is aimed at increasing the diversity of students who are interested in space related careers.

Swartwout is a senior member of the American Institute of Aeronautics and Astronautics, and a member of the Institute of Electrical and Electronics Engineers, American Society for Engineering Education and Tau Beta Pi Engineering Honor Society.

Dr. Mark McQuilling has implemented the use of pressure and temperature-sensitive paint on models in the subsonic and supersonic wind tunnels. This new capability will allow surface pressure or temperature to be globally measured (as opposed to point by point) on complex geometries, allowing our students and researchers a method to obtain these distributions almost as quickly and easily as spraying paint and letting it dry. Dr. Mark McQuilling will coordinate use of this system for research as well as for undergraduate and graduate education through projects and laboratory experiments.

Dr. McQuilling has also developed a new Computational Fluid Dynamics laboratory, consisting of several stand-alone, high-performance workstations as well as a computer cluster comprised of 10 computer nodes totaling 80 processors. The computer cluster was funded through a research contract awarded by the US Army for collaborative research between Dr. McQuilling and Dr. Jean Potvin (Physics) to study steady-state parachute aerodynamics using modern CFD software.

Marty Ferman, Professor Emeritus, was honored by the American Institute of Aeronautics and astronautics (AIAA) with the award of Lifetime Emeritus Member for over 50 years of membership (actually 55), which includes free membership and continuation of some of the AIAA publications.

John A. George, Professor Emeritus, continues his active affiliation with Parks College even after retirement in May 2000. He is currently teaching two courses and provides guidance for senior design projects.
VayuWind, innovation in wind turbines

When it comes to the future of our planet, finding cost-effective ways to tap natural energy resources remains a top priority in environmental research. That’s why Sridhar Condoor, Ph.D., associate professor in the department of aerospace and mechanical engineering, is working to harvest wind energy using an innovative new approach.

Condoor’s Vayu Wind hubless windmill is an innovation that can revolutionize the way the world harnesses energy. The Discovery Channel and Popular Science have recognized this turbine as a new wave of the future. (Vayu in Sanscrit means wind). Wind farms already are used across the country in rural settings, but Condoor and his students recognized the need to harvest wind energy in urban areas as well. Their solution: Vauy Wind, a hubless wind turbine that uses skywalks, smokestacks and other existing city structures to extract wind energy in crowded urban landscapes.

The hubless turbine deploys airfoils parallel to its rotational axis. Unlike traditional turbines, it rotates around a ring frame, leaving the central portion open for other uses. It can be placed around skywalks, bridges and other areas where natural wind speeds are high due to the “tunnel” effect. This concept allows the turbine to function without occupying valuable land space, making it an ideal solution for skyscrapers with significant energy demands.

VayuWind addresses many of the unique challenges posed by tapping wind energy in an urban environment: it is bird-friendly, quiet and adds an appealing aesthetic element to the city skyline. In addition, its elegant design allows it to capture power from both low- and high-speed winds.

Benefits of the hubless turbine concept are numerous. In addition to adding value to existing office spaces, businesses can capitalize on the environmentally friendly image that harvesting wind technology promotes. Industrial power plants can invest in the technology for their smokestacks to substantially increase their net output, reduce greenhouse gas emissions and utilize “green” energy that qualifies for government funding.

By bringing natural energy to urban centers, hubless turbines have the potential to revolutionize the use of wind power in everyday life. “It is the right technology at the right time,” says Condoor. Currently a prototype of the hubless wind turbine is under development by Rixan under the supervision of Dr. Condoor.

STUDENT NEWS

SLU engineering students engage entrepreneurial mindset

Educating students to have an entrepreneurial spirit and a strong business sense is an important part of the engineering curriculum at SLU. That commitment is backed not only by support from organizations such as the Kern Family Foundation and the Coleman Foundation, but also by constant collaboration with SLU’s John Cook School of Business. Sridhar Condoor, Ph.D., associate professor in the mechanical engineering department, was reading one of his wife’s master of business administration books when he realized the need for engineers to be business savvy. This led to his collaboration with the Cooks school of business and KEEN Foundations to in-
introduce engineering entrepreneurship to students. Students in computer aided design course are required to take a particular product and explain how it works – at a level that the average consumer can understand. Engineering students gain further exposure to entrepreneurship through their senior design project, where they must take their work beyond the technical design and create a complete business plan for their invention. Others participate in events like the Idea to Product® competition (I2P) which requires students to assemble a five-page plan for a product and its market. Idea To Product® is a unique academic competition looking at ideas at their earliest stage. I2P is not a business plan competition. The competitions start with a short submission, done according to a strict format, outlining an idea for a product (or service) and its market. This approach makes it possible for students across a campus to develop and present ideas, obtain feedback, and start the process of invention development and commercialization. Through I2P SLU students have created innovations such as a hybrid launcher and an upright wheelchair.

In April 2009, students across campus participated in the first annual “Innovation Challenge.” Students created a 90-second elevator pitch for an, innovative product. The first prize went to the “Cell home” concept, a system that allows a cell phone to automatically connect to your landline phone when one enters their home. Second prize went to the BillikenBot, a recruitment robot. Third prize went to the “Carbon-neutral gym” concept, a gym run on human energy.

With resources such as the Smurfit-Stone Entrepreneurship Center located on campus, SLU is uniquely positioned to provide its engineering students with a valuable business background. In addition to possessing technical competency, SLU graduates also enter the work force with an understanding of customer needs, a working knowledge of business practices and an appreciation of societal values. Beginning Spring 2009 a new course in Engineering Entrepreneurship is being offered. It has become very popular with seniors from all engineering disciplines. Dr. Condoor has been awarded a $20,000 grant from KEEN Foundation to start a journal of Engineering Entrepreneurship this fall. This initiative will further embolden entrepreneurship activities at Parks College. More information on this journal can be found at www.jeenonline.com.

Blanca Ollero (BSME ’10) & Angel Hernandez (BSECE ’10) won the second place for their autonomous robot H-TUM and Keavy Nenninger (BSAE’10) and Michael Dunning (BSAE ’10) won the 3rd prize for conceptual design of Austral Very Light Jet in the campus wide Idea to Product (I2P) competition held during November 2009. They will be competing in the regional I2P competition in March 2010.

Society of Women Engineering (SWE) St. Louis Section scholarship during 2009
Lauren Lobosky (BSAE ’10) was one of the two recipients of SWE St. Louis Section scholarship during 2009. A team of SWE students attended the annual SWE Conference held in Long Beach, CA during the fall 2009.

BOLD scholarship Recipients
William Atkins (BSAE ’11), Jessica Rozycki (BSAE, BSME ’12), Wesley Wilhelm (BSAE ’12), and Mark Reed (BSME ’12) received the Bold scholarship during fall 2009.

The BOLD scholarships are awarded each year to sophomores and juniors with outstanding scholastic achievement with a minimum GPA of 3.2 who exhibit exemplary representation or promotion of an under-represented community, including women, minorities and other factors that contribute to Saint Louis University’s goal of providing a culturally, professionally, and ethnically diverse learning environment. The Boeing Company is committed to preparing leaders for a global workforce. Saint Louis University offers an ideal partnership opportunity by providing a multidisciplinary and holistic education which is not only recognized for technical excellence, but is also highly regarded for its legendary preparation of the whole person. Therefore, this scholarship presents the Boeing Company with a unique opportunity to select and mentor those students majoring in business, engineering, computer science and/or mathematics at Saint Louis University and with the best leadership potential.
STUDENT NEWS

Student Research in Bio-Reactors

A group of ME senior design students are designing a bioreactor which utilizes anaerobic growth to break down organic yard waste to produce methane gas. As the world relies more and more on energy and the pursuit to come up with new ways that are less expensive and environmentally friendly, renewable energy sources are a definite alternative that could drastically affect energy dependence and consumption. At present, most of our energy comes from non-renewable fossil fuels that take millions of years to develop naturally. Bio-Reactors utilize organic wastes—plant trimmings and food wastes, for example—to create Methane gas. Methane has proven to be an efficient and clean fuel for energy and heat production. Bio-Reactors have the potential to be a key player in the future energy needs of the world. This project is being funded by Fred Weber Inc.

Congratulations to the following students who have received various scholarships offered through Parks College of Engineering, Aviation and Technology.

James Barbieri (BSAE ‘12) – Peter Jackalus Term Scholarship and Jack R. and Mary D. Weber Scholarship at Parks College.

Thomas Chlebeck (BSAE ‘10)– Peter Jackalus Term Scholarship and Donald and Nora Manahan Scholarship and Research Fund.

Matthew Chrisler (BSAE')– Peter Jackalus Term Scholarship and Dr. Bellur L. Nagabhushan Endowed Undergraduate Scholarship in Aerospace and Mechanical Engineering

Daniel Ironside (BSAE ’10) – Peter Jackalus Term Scholarship and Norbert and Santhe Dirkers Scholarship

Robert Moehle (BSAE ’10)– Malcolm and Elizabeth Jacobs Scholarship

Morgan Quinley (BSAE ‘10)– Roland Quest Memorial Scholarship

Jessica Rozycki (BSAE/BSME ’12)– Mark and Carol Weber Annual Scholarship at Parks College

A group of students along with Drs. Condoor and McQuilling attended the NCIIA Conference in Washington DC, in April 2009. NCIIA's annual conference highlights the growth in the field of technology entrepreneurship education. Students attended sessions and workshops that led to the creation of products with real commercial outcomes with positive social impacts. As a part of the conference, they attended the March Madness for the Mind Exhibition. This event is designed to celebrate the work of student E-Teams, and their innovation and entrepreneurship. Each year, top E-Teams (collaborating groups of college students, faculty and industry mentors) showcase their work in a science or technology museum during NCIIA’s annual meeting, many unveiling their cutting-edge innovations to the public for the first time.
STUDENT NEWS: STUDY ABROAD

SLU-Madrid campus is increasingly becoming a popular destinations to AE/ME students for study abroad experience. During spring 2009, 10 students from the AE/ME department studied in Madrid Spain. The students are able to enroll in most of their scheduled classes while studying in Madrid. Simultaneously they do some sight seeing of Spain and Europe. The following students studied in Madrid during the Spring 2009 semester: Kerry Fessenden (BSAE), Stephanie Albanito (BSAE), Brett Kostrzewski (BSAE), Thomas Combes (BSAE), Greg Keogh (BSME), Dominique Turk (BSME), Will Atkins (BSAE), Alex Berry (BSAE), Kurt Benes (BSAE), and Michael Kelly (BSME).

SPACE NEWS

NASA wall highlights alumni who served in spacecraft missions

A NASA wall was installed in one of the hallways in McDonnell Douglas Hall. The wall features patches representing each NASA mission. The wall is meant to honor those graduates who participated in the missions and inspire current students who dream of being in the NASA space program. Alumni are encouraged to visit SLU and sign the wall. Barry McCormick (IT ‘62) was the first to sign the wall and the college hopes to have several more join him in signing. From Apollo 13 to STS-117, SLU graduates have touched every NASA mission. Gene Kranz, 1954 SLU graduate and NASA Flight Director during the Gemini and Apollo programs, is best known for his role in directing the successful Mission Control team efforts to save the crew of Apollo 13. Kranz’s “Tiger Team” was on duty when the Apollo 13 service module exploded and the team dealt with the initial grueling hours of the accident. Kranz’s motto, “Failure is not an option,” earned him, his team and the astronauts on the mission the Presidential Medal of Freedom. In October, Gene Kranz visited Parks and signed the many mission patches, in which he was involved in. Years later, 1988 SLU graduate Kelly Beck served as the Flight Director for NASA’s STS 117 mission, which launched June 8, 2007. The mission, which used the Atlantis orbiter, was NASA’s 118th shuttle flight and continued the construction of the International Space Station. SLU graduates continue to play a role in space exploration, leading the way to further discovery in the universe. With this wall, students are reminded of contributions to space made by SLU graduates.
**CO-OPS/INTERNSHIPS**

Students in Aerospace Engineering and Mechanical Engineering continue to enrich their education via Co-ops and internships in industries, government labs and university laboratories. Here is a brief description of some of our students’ experiences during summer 2009.

**Stephanie Albanito** (AE ’11) interned at The Boeing Company, Corporate Offices in Chicago, IL. The position obtained was Shared Services Group Facilities Intern. During this experience she was involved in an array of projects, including acting as a lead in water and energy conservation movements for Boeing. In addition to the ‘green’ effort, Stephanie was involved in the improvements and implementation of the Chicago Green Office Challenge Scorecard. Other projects included various space and aesthetic planning throughout the Boeing facility, including the executive floor.

**Bryan Arko** (BSME ’10) spent the summer at the Applied Research Laboratory (ARL) at Penn State University. At ARL Bryan worked on a research project entitled "Modeling of Acoustic Agglomeration Processes." The objective of the project was to successfully model the agglomeration of particles due to non-linear acoustic effects. Upon starting the project, Bryan was presented with ARL’s Nonlinear Acoustics Particle Dynamics (NAPD) code, which is an object oriented C++ code used to model particle movement due to nonlinear acoustic forces. This code was updated to include gravitational effects as well as the ability to initialize particles with a random particle size distribution. Once NAPD was complete, the stochastic Monte Carlo procedure was used with the constant number method to model the particle agglomerations. Many simulations were run and verified against literature. To conclude the internship, Bryan presented his work in a presentation to the engineers and faculty of ARL. Bryan has high aspirations to continue graduate work at Penn State.

**James Dice** (BSME ’10) spent his summer interning with Burns & McDonnell in their Aviation & Facilities division in St. Louis. Burns & McDonnell is an employee-owned engineering, architecture, construction, environmental and consulting solutions firm based in Kansas City. James assisted a Professional Engineer in the management of multiple projects, mostly involving the design of HVAC systems. He contributed to many phases of the building design process, such as heating and cooling load calculation and sizing of the mechanical equipment. One highlight of the summer was conducting an energy survey highlighting the economical advantage of upgrading a client’s existing chilled water system to a more efficient system.

**Andrew Fields** (BSAE ’11) interned at Boeing Space Exploration in Houston for the summer. While in Houston, he worked in the Space Shuttle Cargo Avionics Group, which designs the electrical and communications connections between the Space Shuttle and its payloads. Andrew spent a significant amount of his time developing software for managing Space Shuttle electrical cable data, and he also participated in the Cargo Avionics Flight Products review for STS-131, a mission which is slated to fly in 2010. In addition to his work duties, Andrew also had the opportunity to tour various NASA facilities and to fly the motion-base Shuttle Mission Simulator, which is used to train astronauts.

This summer **Alexander Haines** interned as an engineering assistant at the Pentagon for the Department of Defense. He worked in the Engineering and Technical Services Division creating and maintaining CADD documents for the Configuration Management Archive Library. He was responsible for organizing, cataloging, and archiving drawing information for layouts of all the federal buildings and structures within the Pentagon reservation boundaries.
Frank Kody (BSAE ’11) spent his summer interning at NASA’s Glenn Research Center in Cleveland, OH. This was his second summer working in the Life Prediction Branch within the Structures and Materials Division at Glenn. Frank supported microstructure research of Polymer Matrix Composites for the Aging Aircraft Program. He also spent time supporting research efforts that determined crack growth properties of several Ceramic materials with application toward the Constellation Program. Both of these projects required mechanical testing followed by extensive failure analysis. Toward the end of the summer, Frank supported a project that will develop a computer model of the failure of Titanium superalloys on a micro-structure level. This project required performing failure analysis on physically tested specimens.

David Saracino (BSAE ’10) spent his summer interning with Raytheon Integrated Defense Systems as a Systems Engineer in Huntsville, AL. He worked on the Missile Defense Agency’s (MDA) Ground-Based Midcourse Defense (GMD) system. Specifically, he worked with the Radar Simulation, Integration, and Test team on the Upgraded Early Warning Radar (UEWR). David’s daily duties included UEWR data analysis, UEWR operation, and creating radar analysis tools in MATLAB. The main project he worked on this summer was a MATLAB data conversion tool which, upon completion, allowed him to become Raytheon Six Sigma certified specialist.

Allison Cook spent her second summer interning at AvSafe, an Aviation Safety Consulting Services Company, located in Chesterfield, Missouri. Some of her tasks included analyzing aircraft performance characteristics, analyzing and reviewing aircraft maintenance logs and records, learning and using different techniques to plot flight paths from NTSB, USAF, and FAA radar data, providing factual information for expert reports, flight testing, performing maintenance on flight test aircraft, and analyzing flight test data.

Lauren "Sassy" Lobosky (BSAE ’10) completed her summer internship in Dayton, Ohio, at Wright-Patterson Air Force Base (WPAFB) performing wind tunnel testing for the Propulsion Directorate. Part of her job included assisting the graduate students with their research on turbine blades by either recording data or analyzing data. Two specific projects she worked on dealt with Particle Image Velocimetry (PIV) and Surface Stress Sensitive Film (S3F). In addition to these projects, she assisted with the modeling and fabrication needed for future projects. Dr. McQuilling performed his doctoral research at WPAFB, so she also had the opportunity to continue some of his work. This internship gave Lauren hands-on experience with state-of-the-art technology and also allowed her to gain insight and receive advice about graduate school opportunities.
Maximus Schwanebeck (BSAE ’11) spent his summer interning with Northrop Grumman Aerospace Systems in the Strike and Surveillance Systems Division in El Segundo, CA. He was in the Low Observables department working on an Internal Research and Development project for the F-35 program. The project involved creating demos for the customer, creating and testing various materials used in the F-35 Program. Max also performed analysis on materials and structures investigating any safety issues that arose and worked on mitigating some safety issues.

Last summer Daniel Lane (BSAE ’11) interned at Sikorsky Aircraft in Stratford Connecticut. There, he worked as an intern in the ground testing department. He wrote reports and prepared documentation pertaining to endurance testing of S-92 Gearbox components. Reports needed to be written to grant approval for testing and follow up paperwork to document results of said tests. He was also tasked with setting up a new acceptance test procedure for the assembly department. He had to set up meetings with engineers and factory workers to determine if resources were available to perform a trial run for a procedure that would meet the desired goal. Sikorsky has a very well developed internship program and hosts an event each summer to gain input from interns on how to further improve Sikorsky helicopters.

Jason Jonovski (BSME ’10) spent his summer completing an internship with Ethicon Endo-Surgery, a Johnson & Johnson company in Cincinnati, Ohio specializing in the development of minimally invasive surgical devices. During his twelve week program, Jason worked closely with a team of engineers developing a new device designed specifically for the transaction of tissue in open surgeries. Jason was given the opportunity to coordinate test procedure development as well as the design of numerous fixtures used for design verification testing of the device. He worked personally with over-seas suppliers and also participated in multiple lab tests, simulating field use of the device. He highly recommends this internship to any student pursing a degree in mechanical or biomedical engineering.

Gavin Robey (BSAE ’10) spent his third consecutive summer at Woodward MPC in Skokie, Ill. There, he served as the Actuation Production Engineering intern. His chief duties were to research repair return methods as well as to articulate the integration between two sub-divisions of the Actuation division. He also assisted the Production Engineers on many troubleshooting and data collection projects. He collaborated with many different engineers on a comprehensive list of reasons for return from the field and root causes of failure on many products in WMPC’s actuation line. Their goad was to rapidly categorize returns and improve lead time.

Morgan Quinley (BSAE ’10) spent the summer as an Aerospace Engineer with Andrews Space in Seattle, WA. He spent most of the summer doing hands-on work on customer hardware. First, he carried out assembly and integration of a 3-DOF satellite simulator. He then worked in Los Angeles with space-flight hardware for Bigelow Aerospace's Sundancer spacecraft. Finally, he conducted analysis and developed a prototype for a CubeSat Atmospheric Reentry System.
Mark Reed (BSME ’11) spent the summer at the University of Oklahoma doing research in their REU program, run by their Industrial Engineering department. He was grouped with one partner and did work directly with a professor. They worked on forming metal oxide nano-structures through flame synthesis. Everything was hands-on, and Reed used interesting technologies such as electron microscopes. He and his partner had to write a publishable paper, and make a power point and poster presentation. He was also a part of a business project in which the team had to plan out a lab for reverse engineering and advanced metrology purposes. The program was 10 weeks long and one of its main goals was to have students experience research work. He was the youngest intern in the program so this was a great experience for him to receive this early in his education.

David O’Donnell (BSAE ’10) worked on laminar flow airfoil research using a water tunnel and laser-doppler anemometry at Parks College. His research was under the direction of Dr. Goetz Bramesfeld. He continued the research previously being worked on by David Zidar (BSAE ’09). Initial work involved learning how to use BSA flow software and the water tunnel. An airfoil and a system to mount it in the tunnel had to be improved and re-fabricated. Testing began in July using the laser doppler system (LDA).

Gabe Young, participated in a Co-Op with Universal Air Filter co. This is a company located in Sauget, Illinois. His job was to design custom air filters for communications, military, and industrial projects. He made 3-D models and 2-D drawings for the design engineers. He also performed wind tunnel tests on the air filters and custom electro magnet impulse blocking (EMI) filters for customers. Along with these assignments, he was also in charge of research and development on many special engineering projects that came up while he worked there. He worked on customer service as a company representative to send follow-up emails to any companies that received prototypes or wanted to test materials. Gabe worked as a design and test engineer along with working in the follow-up design department for the Universal Air Filter co. for the Spring 2009 semester and for the summer.

Robert Moehle (BSAE ’10) spent his summer interning with Boeing Integrated Defense Systems (IDS) on the F/A-18 Super Hornet in St. Louis, MO. He coordinated changes for the safety of the aircraft that will be implemented on all current and future F/A-18s in the Navy fleet. He also coordinated a team of interns to present their ideas to upper-level managers. In addition to his configuration management duties, Robert performed short rotations in Liaison Engineering and Flight Test in F/A-18 Final Assembly. The highlights of his summer experience were attending a conference at the Boeing Leadership Center, being flown to Seattle for an interview and the opportunity to attend the Barcelona soccer match.
This summer Sally Warning (BSAE ’10) conducted Computational Fluid Dynamics (CFD) research under the guidance of Dr. Mark McQuilling, working on a research grant from the US Army. During this research, she learned a CFD program called SC Tetra, using tutorials and guidance from her mentor. After completing the tutorials she was given a small project to find pressure and drag components to match experimental data for a wing. She was able to show oil flow, streamlines, as well as paint contours with this program. She also helped Dr. McQuilling and a few students with completing an AIAA journal paper on CFD analysis for a ribbon parachute. She will continue to assist Dr. McQuilling on his research project through Spring 2010.

Tyler Ruff (BSAE ’11) interned at the Pentagon. There he supported the Deputy Under Secretary of the Army with a business intelligence (BI) system implementation program to management office services, as a summer intern hire. He also assisted the Policy & Planning Lead with developing operational and system view architecture products, and documenting an information technology system investment certification request. The BI system that is being developed is Enterprise Management Decision Support (EMDS), which is an automated solution for the Army G-3/5/7 Force Validation Committee (FVC) that will allow current and predictive analysis based on authoritative cross-functional sources of information for personnel, equipment, training and stationing readiness at all unit levels.

Thomas Chlebeck (BSAE ’10) interned with Boeing Research & Technology (formerly Boeing Phantom Works) for 15 weeks this summer. His main task was to develop software to process and automatically catalog a vast library of 3D models for use in an enterprise-wide battle simulator. This involved using multiple languages to convert, encrypt, and generate informational pages for each model. He also worked on the simulator itself, adding new features, improving the interface, and resolving bugs in its complex and cross-platform code. Finally, he presented his work to executives and teams at all the sites in his organization. He also participated in numerous discussions with Boeing leaders that greatly enhanced his perspective. After hours, he took a Linear Algebra course at Stanford University that was fully funded by Boeing. By early August, Thomas was honored to receive multiple post-graduation offers, including one for a leadership development program that accepted only 6 interns. Flying to Seattle for his interview and final presentation was a major highlight of the summer, and he felt very fortunate to see and meet so much of the company. It was an experience he will never forget.
Mohammed Almuwailhi (BSME ’11) interned in an architectural consulting office in Saudi Arabia which deals with residential and commercial buildings. In this internship, he was able to interact with and learn from architectural engineers, civil engineers, surveying engineers, and electrical engineers. One of the most interesting things he learned was to use the Trimble Technology which is an advanced GPS system used for surveying (shown in photo).

Space Systems Research Group

Students and faculty in the Space Systems Research Laboratory (SSRL) are busy preparing two missions for flight. First, SLU’s first homegrown spacecraft is being developed by a team of students in AENG 450 (Senior Design), led by Dr. Sanjay Jayaram. The SLU CubeSat is a 1-kg, 10-cm cube conforming to the international CubeSat standard; more than forty CubeSats have flown in this decade. SLU’s CubeSat will test-fly new electrical power and magnetic field sensors and, most importantly, give the students essential experience in the process of designing, building and testing a complete spacecraft in a short timeline. The students are still on schedule to deliver their CubeSat for environmental testing during May 2010, with the intent to fly the spacecraft in late 2010.

A new inclusion to the SSRL is “EyasSat,” purchased from lab fee funds. EyasSat is a fully functional nanosatellite designed for teaching spacecraft systems engineering in the classroom and laboratory, but is not intended for actual spaceflight. EyasSat demonstrates six traditional satellite subsystems: Structural, Electrical Power (EPS), Data Handling, Communications (Comm), Attitude Determination and Control (ADCS), and Thermal. It also has the capability to integrate student payload (such as a camera) and other subsystems (such as propulsion or GPS). Each subsystem and connected payloads are capable of receiving commands and generating telemetry via the graphical user interface (GUI) developed for EyasSat.

The second project will build on the experiences of the CubeSat mission to perform a more complex scientific mission. Space Situational Awareness is the ability to detect and categorize the thousands of active spacecraft, inactive spacecraft and pieces of space debris currently in orbit. Specifically, our Close-Orbiting Propellant Plume and Element Recognition (COPPER) mission is to understand how infrared sensors can be used to spot thruster plumes in orbit. The mission consists of several identical spacecraft launched together on a common interface plate. Once on orbit, one spacecraft will be released at a time, firing its thrusters, while the remaining spacecraft take IR pictures (as well as other sensor data). After that spacecraft drifts out of range, the process repeats until all are released. With this experiment, researchers will be able to better determine the effective range of infrared imagery for detecting nearby spacecraft and for using those images to identify their size and capabilities.
The COPPER mission is competing for an Air Force-sponsored launch with ten other schools through the University Nanosat-6 competition. This program builds on an ongoing satellite project brought to SLU by new hire Dr. Michael Swartwout. Work on COPPER began this summer with a group of interns, including AE seniors Brian Verbus and Alex Shim. The Nanosat-6 winner will be announced in January 2011, with the launch occurring in 2012 or thereafter.

SEDTS STUDENT NEWS

SLU SEDS has had a productive year. Last fall, SEDS had the opportunity to attend the SpaceVision Conference at College Station, Texas. At this conference, the students were able to participate in forums that help formulate ways to bring more awareness to all aspects of the space industry to society. They also met many professionals at the conference. This enabled them to see what they can do in the future for networking. In spring 2009, SEDS hosted the first annual Egg Drop from the 16th floor of Griesedieck Hall. Many different egg landers were created and several designs successfully landed unbroken eggs to the ground. The participants are looking forward to next competition this spring.

ASME STUDENT NEWS

The Parks College ASME chapter is hosting the ASME Student Professional Development Conference in Saint Louis from April 9-11, 2010. We are expecting about 180 students from various schools. Students from these schools will compete in Old Guard Presentation contest, ASME Design contest, and poster presentations. This will be a fun and exciting event. If you want to participate as a judge, please contact Dr. Arif Malik (amalik8@slu.edu)
A team of students participated in the SAE aero design WEST competition in California, in Spring 2009
Left to Right: J. C. Martin, Jim Barbieri, Frank Kody, Nylajo Ritz, David Saracino, Nam Nguyen and Jason Jonovski.

A team of students, Andrew Lang, Abbey Kuchan, Sean Sullivan (BSME ’09), Steven Sander (BSAE ’10) participated in the formula racer team during fall 2008-spring 2009. They participated in the annual SAE Race Team in Detroit in June 2009.
AIAA STUDENT NEWS

2009 Regional AIAA Student Paper Conference

Many students from Parks participated in the regional AIAA Student paper conference held at University of Minnesota, April 2009. Dan Ironside (BSAE 2010) presented a paper entitled “The Structural Dynamics of Aircraft Wings in Bending and Torsion.” His faculty mentor was Dr. Gotz Bramesfeld. David Zidar (BSAE ’09) presented a paper entitled “Laminar Flow-Airfoil Testing with Laser Doppler Anemometry.” His faculty mentor was Dr. Gotz Bramesfeld. A team of three students, Peter Knudtson, David Zidar and Nicholas Freed presented their senior capstone design paper entitled “Development of a Small Satellite Launch System.”

Regional Business Council Mentor Network


The Regional Business Council is a consortium of 100 Presidents and CEOs of some of the region’s largest mid-cap companies. The mission of the of the RBC is to act in high-impact business, civil and philanthropic efforts for the betterment of the St. Louis region. RBC companies are headquartered in the region and have a vested interest in its development. The Mentoring Network matches engineering and business students with RBC executives who can share experiences and provide students with real world knowledge, and insight into the opportunities that exist in the region.

AE/ME Students visit Mid America Steel Plant in Cleveland, OH

Dr. Arif Malik (AE/ME faculty) took his top five students from his Computer Aided Engineering course on a visit to Mid America Steel in Cleveland, OH during November 2009. The students included Xiaopeng (Bob) Lai, John Wendel, Thomas Combes, Gavin Robey, and Greg Keogh. Demonstrations and explanations of stainless steel sheet rolling by the plant engineers and operators at Mid America Steel gave the students valuable insights into how the process relates to the structural analysis methods they learn in class. During the visit, the five Saint Louis University students exchanged ideas with three students from Wright State University who also visited the company. Impressed by their enthusiasm and knowledge, Mid America Steel plans to support an undergraduate research project at SLU. On the return home to St. Louis, the students stopped over in Dayton, to tour the U.S. Air Force Museum.

Pictured left to right: Xiaopeng (Bob) Lai, John Wendel, Thomas Combes, Gavin Robey, Greg Keogh
Congratulations to our December 2008, May 2009 and August 2009 graduates

**BS Aerospace Engineering**
Jeffrey Christopher Aschenbrenner  
Sean Copenhaver  
Paul Michael Gucwa  
Christopher Abel Hernandez  
Mathew David Janda  
Daniel Walker Kuchan  
Cassie Marie Lohrum  
James T. Maday Jr.  
Christopher Lee Peck  
Alexandr Rees  
Brian Paul Rodrigue Jr.  
Daniel L. Rooney Jr.  
Matthew Walter Roseman  
David Safont  
Charles Michael Shortridge  
Francisco Vilaplana Sanchez  
David G. Zidar

**BS Mechanical Engineering**
Alba Esperanza Calderon  
Edin Crnkic  
Patrick E. Durnan  
Scott A. Feiste  
Martin John Kennelly  
Abigail W. Kuchan  
Andrew T. Lang  
Timothy Lodl  
Robert Anthony Martin  
Justin Michael Novotney  
Timothy Robert O’Brien  
Rehan Refai  
Aaron Joseph Sheets  
Sean Sullivan  
Lakiesha Charisse Tomlin  
David Joseph Wombacher

**Honors BS Aerospace Engineering**
Peter August Knudtson  
Nicholas Tellman Reder

We congratulate, honor, and salute the following graduates for their induction into the services as 2nd Lieutenants.

Christopher Hernandez  
Paul Gucwa (center)

**Industrial Advisory Committee**
Every fall semester, the faculty in the department meet with the Industrial Advisory Committee to discuss various academic topics and seek input from the Committee mentors to improve the program. For Fall 2009, the committee members are: (Left to Right)  
Dr. Alexander M. Rubin, The Boeing Company  
David Urbeck, The Boeing Company  
Jeffery Bricklein, DRS Sustainment Systems Inc.  
Mr. Dean H. Klohr Retired Director-Engineer from Cooper Industries, Busman Division  
John Wooton, DRS Sustainment Inc.  
Dr. Albert Black III, McClure Associates  
Mr. Mark Everly, Design and Development Manager at WATLOW (not shown)  
William Carrier, The Boeing Company (not shown)  
Mori Mani, The Boeing Company (not shown)
Edward Anthony (Tony) Barth (BSAE) resides in Manchester, MI.

Joseph J. Lusczek, Jr. (BSAE) is a Technical Director of Aerospace Systems Design and Analysis at Wright Patterson Air Force Base. He received the AIAA Aircraft Design Award in October 2009.

Earl W. Mundy (BSAE) after a brilliant career in the aerospace industry and US Army, retired in 2002 and now resides in Waterloo, IL.

Ed McCullough (BSAE) resides in Lake Forest, CA.

Dennis Gatchiel (BSAE) resides in Cheyenne, WY.

Michael E Benne (BSAE) is at Boeing, St. Louis, Wind Tunnel Testing.

Ralph Jodice (BSAE) is a United States Air Force Major General. He is currently at Andrews Air Force Base, Maryland.

Russ Jordan (BSAE) is at Boeing, St. Louis, Wind Tunnel Testing.

Tom vonHatten (BSAE) is at Boeing, St. Louis, Wind Tunnel Testing.

Pete Beauregard (BSAE) is the Chief EVA, Robotics, and Crew Systems Operations Division Mission Operations Directorate NASA Johnson Space Center.

Bill Rearden (BSAE) is at NAVAIR, as a Technical Director in Propulsion & Power Engineering.

Greg Magee (BSAE) resides in Pickerington, OH.

Vincent Cimino (BSAE) resides in Syosset, NY.

Brian Ray (BSAE) resides in Cabot, AR.

Dave Armstrong (BSAE) is at Boeing, St. Louis, Systems Engineering Department

Michael Connoly (BSAE) is at Boeing, St. Louis, Wind Tunnel Testing.

Robert Hilker (BSAE) is at Boeing, St. Louis, Wind Tunnel Testing.

William (Bill) Carrier (BSAE) is the director of Mech/Structure Engineering at Boeing, St. Louis, MO.

Steve Jacoby (BSAE) is at Boeing, St. Louis, Wind Tunnel Testing.

Oliver Philippi (BSAE, MSAE ’94) is an Aerospace Engineer - Mass Properties Lead (Space) at Northrop Grumman.

Richard Witt (BSAE) has been teaching high school for 13 years. He teaches physics and aerospace. Richard and Cyndi have been married for 15 years. They have two children, Ryan (8) and Emily (6).

John Dempsey (BSAE, MSAE ’93) is with ATK Systems in Blacksburg, West Virginia.

Tom Dwyer, (BSAE) is employed as a Business Unit Manager at Danaher Corp. Started professional career as an engineer with Verizon’s Airfone division developing installation packages for in flight telecommunications aboard commercial airlines. He received an MBA in 1998. He is married to Mary and father of two children, Dan and Suzanne.

Clyde Smith (BSAE ’90) is a patent attorney with Thompson and Coburn in Saint Louis.

Mark Johnson (BSAE, MSAE ’93) is a VP at L-3 Communications near Dallas.

Joe Winkelmann (BSAE) is an environmental engineer for the State of Missouri’s Air Pollution Control Program in Jefferson City, was recently named the Project Manager of the Herculaneum Lead (Pb) Nonattainment Area State Implementation Plan (SIP) and also as Lean Engineer for the St. Louis Area Ozone SIP.

Emil G. Bantz Jr. (BSAE) is working for GSS Weights & Mass Properties Engr 4, Boeing, St. Louis, MO.

Teresa (Holten) Dima (BSAE) is working for Boeing, St. Louis, MO.

Richard Lacy (BSAE) is with the Boeing Company in St. Louis.

Chahid Nouri (BSAE) is at United Bakeries, in Czech Republic.

Crin Dima (BSAE, MSAE ’95) is working for Boeing, St. Louis, MO.

Timothy Zoern (BSAE) is working for Pratt & Whitney Airframe Integration- Commercial Programs East Hartford, Connecticut.

Diego Baeza (BSAE, MSAE ’96) is at EADS CASA as A330 MRTT Controller & Earned Value Manager.

Gema Garcia (BSAE) is employed by Eurocopter España in Madrid in the contracts and deliveries section.
 Alumni News (continued)

‘95
Kristyne (Maxwell) Ascherl (BSAE) is a project manager at Caterpillar in Peoria, IL.

‘96
Bill Eisenman (BSAE) is a Senior Engineer— with Aircraft Structures Engineering Support Center, US Airways, Pittsburgh.

Juan Pelaez Millas (BSAE, MSAE ’98) is the co-founder of Simulacion Entiempo Real jointly with Jaime Sanchez (BSAE, MSAE ’98)

‘97
Yago Sanchez (BSAE, MSAE ’99) is the director of business development for Alava Ingenieros in Madrid, Spain.

‘98
David Fernandez Gomez (MSAE ’00) earned an Executive MBA at Instituto de Empresa, in Madrid, with emphasis in Finances. He is currently a Financial Controller at EADS, Spain.

‘99
Fernando Abilleira (BSAE, MSAE ’01) is a mission engineer in the Mars Exploration Program Office at the NASA Jet Propulsion Laboratory in Pasadena, CA.

Christopher Alexander (BSAE) is a Strength Analyst in the Structures Technology department of The Boeing Company, St. Louis.

Sameersingh Gautam Deeljore (BSAE) is a technology coordinator at Pius Library, Saint Louis University.

Igor Alonso Portillo (BSAE) is a Manager with the Aerodynamics Group and a Senior Engineer— Test Group at CAF - Research Department, Spain.

Ernesto Lopez Ruiz (BSAE, MSAE ’03) is employed by EADS. He is currently pursuing a MBA degree.

‘00
Ben LeGrand (BSAE) is now with Boeing’s AEW&C program in Seattle.

‘01
Carlos Manglano Villamarin (BSAE, MSAE ’02) is working for Airbus since January 2006 with Aeroconseil, in the field of Aerodynamics.

Kenna Williams Odeghe (BSAE) is a Sea Range Test Manager with NAVAIR in China Lake, CA

‘02
Jeff Abernathy (BSME) is an IT consultant/Liaison at Saint Louis University.

Greg Huston (BSAE) is an Aeronautical Engineering Analyst - Structures with Skunk Works at Lockheed Martin, CA.

Ben LeGrand (BSAE) is now with Boeing’s AEW&C program in Seattle.

‘03
Cristina Garcia-Duffy (BASE, MSAE ’05) earned her doctoral degree in Aerospace Engineering at Washington University and presently employed with West Midlands Helicopters in UK.

Pablo Hidalgo (BSAE, MSAE ’05) completed his Ph.D. at University of Alabama, Tuscaloosa in May 2008. He is currently a post doctoral fellow at Georgia Tech.

Andrew Leader (BSAE) is at Holloman Air Force Base, New Mexico.

Carlos Carrasco Pérez (BSME) is working as a project manager in the special projects division in Johnson Controls International. He is working in the development of the Human Evolution Museum in Burgos – Spain.

David Richter (BSME) is pursuing his Ph.D. in Engineering Education at Virginia Tech.

‘04
Guillermo Albaladejo (BSAE) is working for National Institute of Aero Space Technology (INTA) in Madrid.

Eric Brighton (BSAE) is pursuing his MSAE at University of Colorado, Boulder CO.

Noah Brown is an aerodynamics engineer (weapons separation group) with The Boeing Company in St. Louis. He is pursuing a master’s degree through USC.

Kate Cronin (BSAE) is with the structures group at Boeing St. Louis.

Matt Derginer (BSME) is with the Boeing Company, Philadelphia.

Jorge Mozon Farre (BSAE) is working for Airbus.

Gary Fears (BSAE) is working for Boeing, St. Louis.
Alumni News (continued)

David Hoban (BSAE) is an engineer at Manitowoc Cranes.

Josep Pino Guimera (BSAE) earned his master’s degree at Glasgow, in Space Mission Analysis & Design. He is working for Airbus in Barcelona.

Timothy Kneier (BSAE) is working for Boeing, Seattle.

Nathaniel Ledbetter (BSAE ‘04) is working for Boeing Company in Seattle.

Olga Pushkareva (BSAE) is a Design Engineer for DRS Technologies, Marlo Coil.

Antonio Harrison Sanchez (BSAE) is working for ESA in Risk Analysis Division.

Carlos Cabezas (BSME) is working at The Boeing Company 787 Weight Engineering, Seattle, WA and pursuing his M.S. in Mechanical Engineering at USC.

Michael Cunico (BSAE) is currently a Program Lead Engineer in the Stress Group at Midcoast Aviation, Inc., Cahokia, IL.

Heath Toennies (BSME) is working at Caterpillar, Peoria, IL.

Mike Nesbitt (BSME) is working at Caterpillar Inc., Decatur, IL.

Kyle Stange (BSAE) is a Design Engineer with Midcoast Aviation in Cahokia, IL.

John Van Osch (BSAE) is a flight systems engineer (F18) for Boeing at the U.S. Naval Base in Patuxent River, MD.

Arturo Alfonso (BSAE) completed his master of science degree in Aerospace Engineering at SUPAERO in Toulouse, France in July 2009. He currently works for AIRBUS in Hamburg, Germany.

Rosalie Bott (BSAE) is a systems engineer at Raytheon, Tucson, AZ.

Adam Conners (BSAE) is at Boeing, St. Louis, Wind Tunnel Testing.

Abe Grindle (BSAE) is enrolled in the dual Master’s Program at MIT in the departments of Aerospace Engineering and Technology.

Bethany Nguyen (BSME) is an Orion Systems Engineer, Systems Engineering, Integration & Test, Assembly, Integration & Production Test Ops for Lockheed Martin Space Systems CO, Kennedy Space Center, FL.

Sarah Niemann (BSAE) is working in Communications & Tracking Systems Group of International Space Station at NASA - Johnson Space Center.

Rachel Obeidzinski (BSAE, BSME ‘07) is working at NASA, Houston.

Enrique Olmedo (BSAE) completed his master of science degree in Aerospace Engineering at SUPAERO in Toulouse, France in July 2009.

Lucas Smith (BSAE) is working in the Mission Systems Sector for Northrop Grumman, San Bernardino, CA.

Lee Rinella (BSAE) is working at Boeing St. Louis. He will soon be attending the Air Force Undergraduate Pilot Training program.

Juan Manuel Romero (BSAE) is completing his master of science degree in Space Mission Analysis and Design at Glasgow University.

Charlie Voissem (BSAE) is working at Dassault Falcon Jet in Little Rock, AR.

William Brandsmeier (BSAE) is working at NASA, Huntsville, Alabama.

Yen Neng Chen (BSME) is pursuing a master’s degree at California State University, Riverside campus.

Nathaniel Clark (BSAE) is a structural stress analyst with the Boeing Company in Wichita, KS.

Timothy Cooper (BSAE) is working at Goodrich Aero Structures.

Delaney Damberg (BSAE) is working at DCMC, FL.

Krupal Desai (BSAE) is working at Boeing Company, Seattle in the 757/767 Maintenance Programs Engineering.

Ivan Grill (BSAE) completed his masters degree in Aerospace Engineering at Georgia Tech. He is currently with the Boeing Company in Philadelphia.

Randall Hauch (BSAE 04, MSAE 07) is a software engineer with Red Hat in the middleware division in St. Louis.

Sonia Hernandez (BSAE) has completed her master’s degree in Aerospace Engineering from the university of Maryland. She is currently at UT Austin pursuing a doctoral degree.

Dane Johnston (BSAE) is employed by AIGEA in St. Louis.

Jennifer Kottman (BSAE) is working at United Space Alliance, Houston, TX.

Matthew Lakebrink (BSAE) is at Boeing Saint Louis. He is pursuing a master’s degree in engineering.

John Lozano (BSME) is a plant engineer for CII Carbon LLC, Lake Charles, LA.

Paul Lemon (BSAE) is working at Bigelow Aerospace, as a systems engineer with a concentration in propulsion in Las Vegas.

Trent Leslie (BSAE) is working in Southeast Kansas.

Joe Lurkins (BSME) is a Product Engineer for Hubbell Power Systems in Centralia, MO.

Timothy Lukianowicz (BSAE) is currently at Shaw Air Force Base in South Carolina.

Vincent Misuraca (BSAE) is working at the Boeing Co., St. Louis and pursuing a masters degree at Washington University.

Stephen Newman (BSAE) is a Support Equipment Engineer in the Advanced Engineering and Technology division of Belcan Corporation in Cincinnati.
Khoa Nguyen (BSME) working as Design Engineer at Hussmann Ingersoll Rand Corp in Missouri.

Michael Padgen (BSME) is pursuing a masters of engineering degree at The University of Albany, NY. He was awarded a research assistantship to pursue his degree.

Darren Pais (BSAE) is continuing his education at Princeton University and is pursuing a doctoral degree.

Michael Ponder (BSAE) is working as a Flight Dynamics Engineer at Opinicus Corporation in Tampa, FL.

Mike Reichle (BSAE) is working for APCS (Air Pollution Control Systems) St Louis MO, working under Ameren UE.

Adolfo Jose Lopez Rivera (BSAE) is with Nooter Ericsson in St. Louis.

Josh Rojahn (BSAE) CFD Analyst, Qualis Corporation, ER42 Propulsion Fluid Dynamics.

Ben Ruschau (BSAE) is with E Serv in Peroia, IL.

Jenelle Sander (BSAE) is a structural engineer with the Boeing Company, St. Louis. She is also pursuing her M.S. degree at Washington University.

David Stafford (BSAE) is pursuing a master’s degree at the flight test school, Edwards AFB.

Nick Varuso (BSME) is working as a Well Engineer with Shell Oil Company in Louisiana.

Jason Wells (BSAE) is employed with Boeing St. Louis.

Zachary Ward (BSAE) is employed as a Structural Maintenance Program Engineer for Boeing in Seattle.

Jake Ahearn (BSME) is currently

Joseba Armentia (BSAE) is attending Glasgow’s University in Aerospace and Management.

Yang Che (BSAE) work for Boeing, St. Louis, MO

Adam Conners (BSAE) works for Boeing, St. Louis, MO

Christian Criado-Perez (BSAE) is working for Eurocopter, as a Cost Analysis and Planning Improvement Engineer.

Cameron Deremer (BSAE) is working for NAVAIR, Maryland.

Matthew Dougherty (BSAE) is with United States Air Force.

David Doughty, II (BSAE) is working for NAVAIR, Maryland.

Nicholas Dupré (BSAE) is a Program Manager, P5 ADL Combat System, Elgin AFB. He is married to Delaney Damburg (BSAE ’07)

Ryan Gordon (BSAE) is working for Grumman in California.

Tara Grant (BSME) is working for Rolls Royce, Indianapolis, IN.

Ryan Graue (BSAE) works at AvSafe, on Airplane Accident Investigation, Spirit Airport, Chesterfield, MO.

Jessica Heaton (BSAE) works for NASA, Houston.

Lindsey Hourihan (BSME) works for Cessna, Wichita, KS.

Nick Farrow (BSAE) works for Booz/Allen/Hamilton, Huntsville, AL.

Wes Karmazin (BSAE) is currently employed by Boeing St. Louis.

Benjamin Koukol (BSAE) is attending Georgia Tech for his masters degree.

Brett LaPeirre (BSAE) is working as a weight and balance engineer on some new business jets at Midcoast, Cahokia, IL.

Stephanie Liske (BSAE) is with Jacobs Engineering, Hampton, VA.

Shannon Moriarity (BSME) is a HVAC engineer at McClure Associates, St. Louis.

Jacob Mueller (BSAE) is attending law school at SIUC.

Charles Myers (BSAE) is working for Cessna in Wichita.

Nicolas Radloff (BSAE) is a Commissioned Officer in the United States Air Force.

Marc Reese (BSAE) is attending graduate school at Penn State.

Andrew Reno (BSAE) is a Commissioned Officer in the United States Air Force.

Evan Rezaie (BSAE) is an engineer with NAVAir in the Compression Systems Engineering, Maryland.

Ashley Cotter-Scroggins (BSAE) is working at NASA Goddard.

Frank Semmelmayer (BSAE) is a Commissioned Officer in the United States Air Force. He is stationed at Wright Patterson Air Force Base.

Brandon R. Smith (BSAE) is working for NAVAir. He is working on rotor wing aircraft, specifically V-22, H-1 and CH-53K flight controls.

Hoa Truong (BSAE) is a Design Engineer for Flight-Safety International Simulation, Oklahoma.

Kevin VandeVoorde (BSAE) works at United Space Alliance, Houston, Texas.

Miguel Zarzuela (BSAE) is working in Berlin, Germany, for Siemens.

Eric Zurliene (BSAE) work for John Deere in Iowa.

Matthew Janda (BSME 08, BSAE 09) is with Airborne Systems in Santa Ana, CA.

Jeffrey Aschenbrenner (BSAE) is with The Boeing Company in Houston.

Sean Copenhagen (BSAE) is pursuing a MBA in Cincinnati.

Edin Crnkic (BSME) is pursuing a doctoral degree in Mechanics of Materials at Georgia Tech.

Scott Feiste (BSME) is with The Boeing Company, St. Louis.
**Alumni News (continued)**

- **Paul Gucwa** (BSAE) is a commissioned officer in the US Marines.
- **Christopher Hernandez** (BSAE) is commissioned officer with the US Airforce.
- **Peter Knudtson** (BSAE) is pursuing a graduate program at the International Space University in France.
- **Abby Kuchan** (BSME) is a laboratory assistant at Saint Louis University.
- **Daniel Kuchan** (BSAE) is a stress engineer with Mid-Coast Aviation in Cahokia, IL.
- **Andrew Lang** (BSME ’09) is a liaison engineer with the Boeing Company, St. Louis.
- **Timothy Lodl** (BSME) is with GE Medical, Wisconsin.
- **Justin Novotney** (BSME) is with DRS Marlo Coil.
- **Christopher Peck** (BSAE) is a R & D engineer at Esterline Defense Technologies in Camden, AR.
- **Nick Reder** (BSAE) is with GE engines in Cincinnati.

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<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Current Position</th>
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<tbody>
<tr>
<td>Rehan Refai</td>
<td>BSME</td>
<td>Pursuing a MS/PhD at University of Texas, Austin.</td>
</tr>
<tr>
<td>Brian Rodrigue Jr.</td>
<td>BSAE</td>
<td>With NASA Houston.</td>
</tr>
<tr>
<td>Daniel Rooney Jr.</td>
<td>BSAE</td>
<td>Is an aerospace engineer with NAVAIR, Patuxent River, MD.</td>
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<td>Is with Rolls Royce Engines, Indianapolis.</td>
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Please let us know if there are any changes/additions needed in the Alumni News.

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**In Memory of**

Benjamin Sullivan – BSAE ’08, who passed away on November 8, 2009.

Our thoughts and prayers are with his family and friends.

- Congratulation to our proud parents

  Fernanado Abillera and wife Sara are the proud parents of twins Ethan Marshall and Logan Maxwell, July 2009.

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**WE WISH YOU AND YOUR FAMILY A SAFE AND HAPPY HOLIDAY SEASON!**

*Please visit our website for previous newsletters:*  [http://parks.slu.edu/ame/newsletter](http://parks.slu.edu/ame/newsletter)

AE and ME alumni please take a few minutes to complete an on-line survey at:

[http://parks.slu.edu/departments/ame/alumni.php](http://parks.slu.edu/departments/ame/alumni.php)