A Message from the Chair

As we prepare for the upcoming fall quarter, the last before we switch to semesters in 2012, we look back on the past academic year and see a year marked by changes as well as by the accomplishments of the people who define us – our current students, our alumni, and our faculty members.

The most significant change is the one we initiated. Following extensive dialog with our alumni, members of our advisory board, and our students, faculty members agreed upon many changes to the required portion of the mechanical engineering undergraduate curriculum. The cover story features changes that will result in a stronger design thread in the curriculum, by introducing a sophomore design course and stronger senior capstone design experiences.

In undertaking an initiative of this scope and magnitude, we have been fortunate to receive financial support from our alumni and friends, and seek your continued support. To make this convenient, we’ve included a pledge card that we hope you’ll consider returning with your indicated level of support.

We take pride in the accomplishments of our current students recognized at our annual Spring Honors and Awards Ceremony, and their team endeavors such as the Solar Decathlon or the Theme Park Engineering Group or, in the athletic arena, the OSU Men’s Volleyball Team. We applaud their creativity, hard work, and initiative in these endeavors.

Our alumni are our ambassadors at large, and we have been fortunate to receive financial support from our alumni and friends, and seek your continued support. To make this convenient, we’ve included a pledge card that we hope you’ll consider returning with your indicated level of support.

The old adage that claims necessity is the mother of invention might be aptly applied to the redesign of the mechanical engineering curriculum in preparation for the 2012 switch from quarters to semesters. Certainly, the inventiveness of some very resourceful faculty and staff is paving the way for an education model that includes more design-based learning. The occasion of the switch to semesters provided the necessary fillip for this inventiveness.

Two important changes to the undergraduate curriculum include the creation of a sophomore design course and major changes to the senior capstone design course. The motivation for these changes aligns strongly with recommendations of deliberative bodies involved with engineering education. To cite an example, ASME’s Center for Education surveyed hundreds of engineers and managers from industry in 2010 on the strengths and weaknesses of current entry-level BSME graduates. Nearly a quarter of these respondents cited awareness of how devices are made and work as an area of weakness, and one in seven characterized oral and written communication similarly. Turn the page to learn how two design courses will change the way Ohio State will prepare its mechanical engineering graduates for their future careers.
“Design is one of the most creative and satisfying parts of engineering.”

The semester course will begin with a one- or two-week study of typical design and production steps—everything from exploring materials selection and manufacturing processes to analyzing systems and components. This lesson will include disassembling some common workshop items such as small electric drills or power screwdrivers and discerning how and why the manufacturer produced and then marketed the selected tool to the consumer. The following six weeks will be spent machining and assembling a small air motor. Students will investigate variations in the motor design and perform basic tests on the motors. The final six weeks will be more open-ended allowing students to apply the air motor to a specific design task. “We'll assign the functional requirements, and leave it to them to be imaginative,” said Abrams.

Following a suggestion by Professor Mo Sammy, Abrams and Lilly will also task students with creating an “apprentice piece” in the Student Machine Shop prior to beginning work on their air motors. The apprentice pieces, which were designed by ME Machine Shop Supervisor Chad Bivens, will be simple three-part assemblies that involve basic machine operations such as milling, turning, and tapping. Inspiration for incorporating the air motor into the sophomore course came from a video created by the students of Professor Igor Adamovich’s ME 581 class, which demonstrated how the students had designed and assembled an air motor.

The course is also meant to address additional employer concerns about teamwork, communication, and project management skills. In general, students will be grouped into three-to-four person teams to complete many of the course assignments. Abrams and Lilly expect to offer the course each fall and spring semester. This fall, while still on the quarter system, 26 students will participate in a 10-week pilot of the class.

Other faculty members who have been instrumental in the development of the course include Department Chair Cheena Srinivasan, Associate Professor Dan Mendelson, now retired Professor Gary Kinzel, and Assistant Professor Shraya Prakash. Weekly meetings between Abrams, Lilly and Srinivasan helped flesh out the ME themes that the course would encompass. Mendelson and Kinzel were major influences in the technical perspective, and Prakash along with PhD candidate Matt Detrick are helping craft lectures for the course. Lilly concluded, “We want this course to motivate students while giving them some real skills that they can use in other ME courses and later in their careers.” He further noted that the equal of industry employers and alumni would be useful as well. Interested readers may contact him at lilly2@osu.edu.

Prototype air motor to be created in sophomore design course

EXTENDING THE VALUE OF THE SENIOR CAPSTONE DESIGN COURSE

As further preparation for the “real-world,” college seniors are required to fulfill a capstone design experience which they may do currently in one of a number of ways. A minority of students take a year-long (three academic quarters) engineering capstone course, involving either an industrially sponsored design-build-test project or a project involving the design of an assistive device for patients with movement disorders (ME 565). However, the majority of students take two courses, one involving a design project but no building or testing and another emphasizing experimental methods, to meet the current graduation requirement. Under the new semester system, all seniors will be required to take a year-long (two semesters) capstone design course involving a design-build-test experience. It’s a move that is intended to provide a more complete design experience.

In reformulating the capstone course for the semester system, ME faculty knew that they wanted to “bake” more robust design into the class and expose all ME students to the entire design-build-test process. Associate Professor Anthony Luscher, who was the first ME faculty member to pilot the year-long capstone course for the department, believes all seniors will benefit from the two semesters of capstone work. “Design is one of the most creative and satisfying parts of engineering. Design uses all of the technical aspects of engineering as well as the ability to synthesize novel solutions to product or process design. At its most basic level design is problem solving,” he said.

In general, seniors will work in teams of four-to-five students to accomplish a given capstone project. Students will be expected to engage in preliminary design, analysis, and planning tasks. At the end of the fall semester they will present their product concepts and prototypes. During the spring semester, the prototypes will be further developed and tested, with the goal of producing completed devices and, in some cases, patent-ready concepts at the end of the academic year.

Looking forward, the faculty values the importance of introducing its seniors to activities that require thoughtful planning, organization, and time management, in addition to the more comprehensive design education planned for the semester curriculum. “It’s important that our job-ready graduates be viewed as competent engineers with good business and communications skills. We expect them to enter job interviews with a portfolio that summarizes the experience and knowledge gained through their capstone project,” said Associate Professor Blaine Lilly.

“I know that all of our ME faculty, and especially Associate Professor Anthony Luscher, Assistant Professor Rob Siston, and Associate Professor Blaine Lilly are committed to making the semester capstone course a success,” said Cheena Srinivasan, Chair of the Department of Mechanical and Aerospace Engineering.

Seniors may elect to take a ME specific capstone course or one that is multidisciplinary and conducted by the College of Engineering. The capstone “flavors” include:

Industry projects that are sponsored by engineering corporations and that require students to focus on projects of interest to the sponsor and in turn require students to interface with their engineers. Projects may involve product or system design. The course was piloted by Professor Luscher of the ME department about seven years ago and, with success and growth to cover other areas of engineering, was transferred to the College of Engineering.

Assistive device projects that focus on aiding people with movement disabilities. The course currently involves seniors from mechanical engineering and biomedical engineering working with graduate students in occupational therapy, physical medicine and rehabilitation, to ensure that the assistive devices created by the students meet the needs of the patients as well as the objectives of the capstone course. The course was piloted by Professor Siston three years ago, and was recently joined by the biomedical engineering department.

Motorsports projects that involve design tasks relevant to the automotive competitions that our students have participated in successfully for many years. Examples are the Formula SAE competition, the Formula Student competition and its precursors sponsored by the Department of Energy, and the Buckeye Bullet. Design projects that may be carried out in structured educational settings compatible with a capstone design course are identified and senior year students assigned to perform the tasks.

Product design projects that give students a holistic view of a product and allow them to examine all design phases from idea generation to fabrication to the marketing of a product. These projects might also vary greatly in design and function, and could really be anything from a re-envisioned aluminum can to a programmable thermostat. This version of the capstone design project would take advantage of the highly successful Product Design course that has been taught for many years by Professor Lilly and would be a follow-on to the course.

Social innovation and commercialization (SIAC) projects that pair the capstone teams with the associates or clients of a nonprofit or charitable organization that wishes to fund the creation of a new product or device that would aid their user community. SIAC projects are expected to become self-sustaining through commercialization of project designs with funds returning to the sponsoring organization and Ohio State for reinvestment in further exploration of additional products or devices. This is an initiative of the College of Engineering and the ME program has participated in this initiative for a few years.

Capstone Options

To meet the wide variety of interests of mechanical engineers, a range of capstone opportunities will be offered. Seniors may elect to take a ME specific capstone course or one that is multidisciplinary and conducted by the College of Engineering. The capstone “flavors” include:

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Brad Okeson Gets Ready For the Ride of His Life

Some people like to describe the highs and lows of their careers as a roller coaster ride. In the case of one recent Ohio State graduate, the thrill of the career climb began when he founded the Theme Park Engineering Group at Ohio State. Brad Okeson, BSME Spring ‘11 and MSME Summer ‘11, will relocate to Orlando, Florida in September to become part of Universal Studios’ ride development R&D team. Before departing Columbus to begin his universal experience, Brad took a few minutes to share his thoughts about how his mechanical engineering degree allowed him to enter the exciting world of theme park engineering.

Q: What prompted you to start the Theme Park Engineering Group at Ohio State?
A: The Theme Park Engineering Group grew from the passion I have for the theme park industry. I grew up in Cleveland, Ohio, which was “next door” to Geauga Lake and SeaWorld. My parents bought season passes to those parks almost every year. In the early 2000s, Geauga Lake was bought by Six Flags and beginning at age 15, I worked there for five seasons in the catering and special events department. Growing up, I always knew I wanted to design various rides or attractions. Also, I participated in the roller coaster design competition for First-Year Engineering students and was lucky enough to meet Jeff Gramke (Chief Engineer of Operations at Kings Island). He gave me some advice about how to break into the industry.

Q: How do you recruit members to the Theme Park Engineering Group?
A: Similar to many student organizations, we use the Student Involvement Fair and the Engineering Expo in the fall to gain exposure to a large concentration of students. We draw most of our membership from the two events. Otherwise, we advertise via flyers, online, or using visual set-ups such as the roller coaster model displayed at the Ohio Union.

Q: What Ohio State trait will you take with you to Florida?
A: As far as my academic path goes, my faculty advisor Emeritus Professor Dennis Guenther and my friend Steve Engelhardt nudged me into the BSMS program. And of course, my mom and dad always supported me and pushed me to do the best I could.

Q: Do you have a favorite memory from your five years of employment at Geauga Lake?
A: I think one of the most memorable activities was preparing a picnic for 10,000 people. We had to be there at 5 am to start cooking. Otherwise, just seeing people leave the park with a smile on their face was always a great freeze-frame.

Q: As a career choice, what attracted you to theme park engineering?
A: I knew I wanted to do something that would bring joy to a lot of people and something I would also enjoy which was mechanically inclined and that led to theme park/attraction engineering. I think if you are passionate about something you should pursue it.

Q: Who, if anyone, influenced your ME career path?
A: As far as my academic path goes, my faculty advisor Emeritus Professor Dennis Guenther and my friend Steve Engelhardt nudged me into the BSMS program. And of course, my mom and dad always supported me and pushed me to do the best I could.

Q: All-time favorite amusement park ride and location?
A: Whoa . . . big question, I am probably going to have to cheat a little bit and say my favorite theme park attraction is a close tie between “The Amazing Adventures of Spider-Man” and “Harry Potter and The Forbidden Journey” both at Islands of Adventure at The Universal Orlando Resort in Orlando, Florida. And then my favorite amusement park ride would have to be Maverick at Cedar Point in Sandusky, Ohio.

Q: Scariest ride you’ve ever been on (or maybe most hair-raising)?
A: Hmm, I’d have to say any RipRideSkyCoaster. They harass you into a flight suit, strap you onto a cable and then usually haul you hundreds of feet up into the air. Suddenly, you’re looking down at the ground and then you have to pull the cord to release yourself. Very scary.

Q: What’s in the future for theme park engineering?
A: As far as green initiatives, I think there are a lot of interesting advancements in the water park realm. I know there are some designers that specifically work on high-efficiency systems and those are really interesting.

As far as technology in attractions, there have been some that really push user interaction such as Men in Black Alien Attack at Universal Florida and Toy Story Mania! at Disney’s Hollywood Studios. Museums, too, are looking to have a new level of user interaction, such as the Spy Museum in D.C. They recently launched an experience called Spy in the City. You’re given a GPS device, clues and codes and sent out on a walking tour of the capital with the goal of learning about various historical landmarks in D.C. It’s a really bold step forward for a museum as they try to overcome the stigma that museums are stuffy and boring.

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Q: What Ohio State trait will you take with you to Florida?
A: I will definitely “Pay it Forward”, I know I couldn’t have reached my current goal without the help of others and I will try my best to help others as well. If you are reading this feel free to contact me (okeson.20@gmail.com) and I will try my best to give you (or your future Buckeye) some guidance about breaking into this unique and amazing industry.

About the Theme Park Engineering Group

The purpose of the Theme Park Engineering Group is to enhance the knowledge of science, engineering, and creative design throughout the academic community through the utilization of experiences within the theme park industry. For more information, visit themeparkeng.org.

Brad Okeson wishes to publicly thank Ohio State ME alum Bill Watkins for mentoring him as an engineering student at Ohio State and for his encouragement and guidance in creating the student Theme Park Engineering Group. Watkins is a former Chief Mechanical Engineer for Walt Disney Imagineering. He co-founded Ride and Show Engineering, Inc. in 1984. The company, which he sold approximately 15 years ago, is located in California.
As Scott Lab’s resident GtF expert, Kahraman understands how the research performed at Ohio State injects a bit of Buckeye pride into the buzz surrounding the next generation P&W engine. He was particularly pleased with the comments made by the P&W team regarding the Ohio State research and the work that has developed between Pratt and Ohio State and the July meeting affirmed the positive impressions. He said of his work, “I’ve become a full-time student, I may be able to perform research as a Graduate Research Associate for the project, which involved experimental studies on gear fatigue life. I did not know what path this research would take, but I knew after speaking with Dr. Kahraman that it was a path worth taking.”

As my research and graduate work at OSU approached its last quarter, I read about Pratt and Whitney’s new GTF jet engines. These new engines place a planetary gear system between the Fan and the Low Pressure Compressor (LPC). In a normal jet engine design, every R&D minute counts or rather the dictum that time is money and that in the world of jet engine design, every R&D minute counts or costs. It’s been a real accomplishment for Ohio State to match the anticipated timelines of each P&W research project.

To be sure, Kahraman hopes the predictions for the “forward thrust” that this engine will deliver to the economy will create continued research opportunity for Ohio State as well. “The market and aftermarket for these newer engines represents a significant amount of long-term business for P&W and its suppliers. It’s our hope that theoretical and experimental analysis of the GTF technology and related engine advancements will continue over a number of years as well.”

About Ohio State’s P&W Center of Excellence

The P&W Center of Excellence, established in 2009, represents a portfolio of research projects, which gives Ohio State researchers the opportunity to participate in the continuous improvement activities related to the geared turbo fan technology of the PurePower engine.

About P&W

P&W – Pratt & Whitney

The first test flight for the PW1000G geared-turbofan engine (of the PW1000G engine family) was made June 20 at Pratt & Whitney Canada’s Mirabel Aircraft Center, in Mirabel, Quebec. Additional engine testing will continue for the next year with engine certification scheduling for 2012. Pratt & Whitney, based in Hartford, Conn., is a division of United Technologies Corp. and P&WC is a subsidiary of UTC.

Fueling the Job Engine

P&W Engineer and Former Ohio State Graduate Student Reflects on Work in Kahraman’s Lab

Fortunately for Ohio State, Pratt & Whitney continues to be a regular recruiter of Ohio State engineering talent. One of Professor Alimert Kahraman’s former students, Mark Klein (MS ’09), now a senior engineer within the Fan Drive Gear System unit in East Hartford, Connecticut, had the following to say about his Ohio State experience.

“I am very fortunate for the direction my career has taken, as well as to have had so much success during such an exciting time in company history. Had it not been for my work at OSU with Dr. Kahraman, I would not have had the opportunity to work here at Pratt.

I met Dr. Kahraman during my first quarter at OSU. He was the Professor for my Mechanics Vibrations course. I could not have had a finer teacher as a new graduate student. After not attending any college courses for nearly 10 years, I had one quarter to catch up with the knowledge of the other 30+ years in the class. Needless to say, I attended Dr. Kahraman’s office hours frequently. During his office hours, he mentioned a gear and transmission project that OSU’s GearLab was performing for GM Powertrain. He said of the course many hours on this subject, he was able to perform research as a Graduate Research Associate for the project, which involved experimental studies on gear fatigue life. I did not know what path this research would take, but I knew after speaking with Dr. Kahraman that it was a path worth taking.

As my research and graduate work at OSU approached its last quarter, I read about Pratt and Whitney’s new GTF jet engines. These new engines place a planetary gear system between the Fan and the Low Pressure Compressor (LPC). In a normal jet engine design, the LPC to turn at faster, more optimized rotational speeds. This new gear system, called the FENS, allows the fan to spin at slower rotational speeds, which in turn allows the LPC to turn at lower, more optimized speeds. This new configuration provides significantly improved fuel consumption, as well as reduced noise levels during operation.

Shortly after reading about the new GTF PurePower jet engines, I learned that Pratt & Whitney approached Dr. Kahraman with the need for research to be performed similar to the work I performed for GM Powertrain. As the collaboration grew between OSU and Pratt & Whitney, my research experience at OSU helped create the opportunity for a job interview with Pratt & Whitney here in Connecticut. Immediately after I arrived for the interview and met with the other employees within the FENS group, I knew this was the place for me.

I have been here at Pratt & Whitney for over a year, but it seems like I arrived yesterday. The excitement and pride of working on the GTF PurePower engines is still as fresh as ever. Although I am no longer a student, I am always learning something new. I will always be grateful to Dr. Kahraman for his guidance, OSU for my education, and the OSU’s GearLab for the experience I needed to start my career here at Pratt & Whitney.”

NOMINATIONS FOR 2012 ALUMNI RECOGNITION PROGRAM

If you would like to nominate an Ohio State alumnus for a specific award in 2012, you may download a nomination form via the ME Alumni Recognition Program information page located on the alumni section of the MAE web site or contact Anna Hoza (hoza.7@osu.edu) for more information. Nominations for next year’s awards will be accepted through the end of February 2012.
Mr. Baker is president and CEO of SeA Limited, she was appointed to the position of Chief engineer in 2007, becoming the company's first female development engineer. Since that time, she has made significant contributions before the age of 40. Baja SAe, Buckeye Bullet and Challenge X student automotive competitions such as the Formula SAe, Alamance has contributed to the advancements in the professional competence of our students by hiring the accomplished alumni, current undergraduates and faculty.

The Ralph Boyer Young Achiever Award was presented to Michelle Wilson '86 BME & '86 MSME and '97 PhD ME and Don Caudy '68 BSMe and MSMe. The award is presented to alumni who have invented new products, processes, or procedures that have been successfully manufactured, adapted, or utilized. Our co-recipients of the E.G. Bailey Award, Sandeep Vijayakar and Don Caudy have established, over the course of their careers, that they are very comfortable wearing the hats of engineer, inventor and entrepreneur. Vijayakar's zeal for innovation was unleashed immediately after earning his PhD, when he established his own company, Advanced Mechanics, and conference papers, becoming a technical reviewer for a dozen journals related to nuclear technology and engineering, and service as a Lieutenant Colonel of the Maryland Defense Force. He has also been a member of various NRC (Nuclear Regulatory Commission) committees and a program evaluator for ABET/Accreditation Board for Engineering and Technology. He and co-recipient James Duff have never permitted the obstacles they encountered to become boundaries to success. The 1990 motorcycle accident that occurred when Duff was a sophomore at Ohio State may have caused a slight delay in his graduation plans, but it never slowed down his drive to learn or ability to teach. His professional career has included as a mechanical designer at Texas Instruments, a lead design engineer for a top telecommunications company, as a systems engineer for a contractor supporting NASA's Marshall Space Flight Center. Duff completed his master's degree in industrial and manufacturing systems engineering via distance-learning classes at Ohio University in Athens in 2008 and is now an aerospace engineer at SpaceX. When he established his own company, Advanced Mechanics, he has also found time to volunteer at local career fairs and career days, to take on leadership roles with his local Boy Scouts organization. He is a member of several community groups on topics ranging from energy conservation to the production of hi-tech products made in or around Uniontown.

Charles Kettering Lifetime Achievement Award was presented to Leonard Smith, '82 BSMe. He is known for his contributions to the manufacturing, machinery, and engineering fields. He has been recognized with numerous awards and honors, including the Distinguished Alumni Award from the University of Michigan, the Engineering Education Award from the American Society for Engineering Education, and the William A. Feller Award from the Society of Manufacturing Engineers. His work has had a significant impact on the field of manufacturing, inspiring future generations of engineers to pursue careers in this important field.

The Achievement Award was presented to Golden Vijayakar '84 MSME, '87 PhD ME and Don Caudy '68 BSMe and MSMe. This award is presented to alumni who have distinguished themselves by their contributions to their community, the University and/or the Society. Over the past 20 years, Merritt has been active in numerous charitable organizations and has been recognized for his leadership in several projects. His contributions have been significant and many major US companies came to rely on Precision Gear for its expertise in gear design. During the course of his career, he has been actively involved with American Gear Manufacturers Association as a testament to his vision for American Gear, his two sons later joined him in the business. While Leonard retired in 2004, he continues to work in leadership roles with several charities and to administer his family's charitable foundation.

Professor Giorgio Rizzoni was presented the Teaching Excellence Award by Dr. Lynn Faulkner of the department's External Advisory Board. In his presentation remarks, Dr. Faulkner noted that Professor Rizzoni has twice before earned the Teaching Excellence Award and continues to be nominated and selected for the award because of the great learning opportunities and recognition of his support to the faculty and students. The award is presented to a faculty member who has demonstrated excellence in teaching and has been recognized for outstanding contributions to the education of of excellence faculty and students.

Professor Donald Walker was presented the Teaching Excellence Award by Dr. Lynn Faulkner of the department's External Advisory Board. In his presentation remarks, Dr. Faulkner noted that Professor Rizzoni has twice before earned the Teaching Excellence Award and continues to be nominated and selected for the award because of the great learning opportunities and recognition of his support to the faculty and students. The award is presented to a faculty member who has demonstrated excellence in teaching and has been recognized for outstanding contributions to the education of of excellence faculty and students.

As an undergraduate, Steven Englehardt served as the President of Sigma Phi Epsilon fraternity. He has been a participant in several short-term service projects, and while volunteering at a homeless shelter, Steven noticed how difficult it was for many homeless people to keep what little they have together. To help resolve this problem, Steven created The Steven Englehardt Charitable Foundation. His bag & pillow business was issued over 4,500 bags to homeless throughout the state of Ohio. Steven has served multiple rotations as an intern at Proctor and Gamble. He is now pursuing his master's degree in mechanical engineering at Ohio State. Beginning in her freshman and sophomore years, when she was inducted into Alpha Lambda Delta/Phi Eta Sigma and Rho Pi honorary societies as well as the Women in Engineering organization. Laura Christebeck became actively involved on campus in the Columbus community. She is considered in the top five groups in the Ohio Union in her involvement of the Undergraduate Student Government. After serving as a First-Year Intern, Laura was elected as Senator for the College of Engineering and served as the USG Chief of Staff until 2004. Laura is currently serving as the Proctor and Gamble Baby Care Engineering, which led to the full-time job she received from the Baby Care Engineering group.

Travis Walker distinguished himself as a member of Alpha Lambda Delta/Phi Eta Sigma national honor societies and Phi Tau Sigma. Through his position on the Board of the Ohio State University Chapter for Habitat for Humanity, he secured lodging, transportation and food for his fellow OSU volunteers during their service and breakout service trips in Missouri, Mississippi, and North Carolina. As a member of the Ohio Union Activities Board, Travis brought wheel chair ramps, and worked at a Tennessee food pantry. A gifted scholar, Travis served as an undergraduate teaching assistant and gained additional experience in the field of engineering at his internships at Rockwell Automation and DNV. Columbus. He is now a master's degree student working as a research assistant in the department's Smart Materials and Structures Laboratory.
Carlos Castro joined the department as an assistant professor earlier this year. Prior to relocating to Columbus, he was a post-doctoral researcher at the Technical University of Munich, and recipient of the Humboldt fellowship. As Ohio State alumus, Castro earned his BS and MS in ME in 2005. He completed his PhD at MIT.

His post-doctoral research was in the field of DNA nanostructures, focusing on the development of self-assembly tools to facilitate and enable new experiments for the study of biological systems, using a technique called DNA origami, whereby DNA origami can be assembled into nanostructures with a predetermined shape. He is currently working to build a sensor to test the dynamic behavior of single molecules. Many biomolecules exhibit conformational changes as a part of their physiological function. The goal of his work in Germany was to build a nanoscale sensor from DNA origami that was capable of measuring the displacements and dynamics of single molecules, in particular, proteins.

Haifan Su joins the department as an assistant professor this fall. He has been an Assistant Professor in the Department of Mechanical Engineering at the University of Maryland, Baltimore County since 2007. Su received his BS and MS in ME at the University of Posts & Telecommunications in Beijing, China and his PhD from the University of California, Irvine’s Department of Mechanical and Aerospace Engineering.

Last summer, Su was appointed a Summer Faculty Fellow at the Air Force Research Laboratory. He was a post-doctoral associate in mechanical engineering at Iowa State University. In 2010, he received ASME International’s Foundation’s Young Investigator award. His research interests cover a broad spectrum of design process from conceptual design through detailed design and prototyping. His research goal is to systematize design innovation by integrating both [qualitative] design science and [quantitative] design art aspects into the design process and to apply these powerful tools to a range of design applications where kinematics and mechanisms play a central role.

Saminy Receives Distinguished Scholar Award

Dr. Mohammad Saminy was presented the University Distinguished Scholar Award during a surprise visit by Ohio State President E. Gordon Gee at a department gathering in March. The award is in recognition of Dr. Saminy’s exceptional scholarly accomplishments and research activities. Also on hand for the surprise presentation were Vice President for Research Caroline White, Senior Associate Vice President for Research, Jan Wasserberger, College of Engineering Associate Dean for Research, Daniel Zwerdling, Department of Mechanical and Aerospace Engineering Chair K. Cheena Srinivasan, and other department faculty members. A reception in Dr. Saminy’s honor quickly followed the award presentation.

The University Distinguished Scholar Award recognizes excellence among six faculty members who demonstrate scholarly activity, research, or other creative works which represent exceptional achievements in their fields. Recipients of the award receive a $20,000 research grant and a $3,000 honorarium to pursue their scholarly activity. Dr. Saminy along with the other five faculty members chosen were the award recipients during a subsequent awards ceremony in April.

Saminy's research has focused on fundamental physical understanding of fluid flows in engineering applications using experimental and analytical tools. He has made significant contributions in several areas including compressible turbulence, flow/acoustic control, and laser based flow diagnostics. During the course of his career at Ohio State, Dr. Saminy has supervised approximately 15 doctoral, masters, and honors BS students and postdoctoral researchers. These students and researchers have collectively received roughly fifty national and university fellowships (including fellowships from NSF, NASA, the Air Force, and Navy, and Ohio Space Grant Scholarships, Ohio State University Presidential Fellowships, Postdoctoral Fellowships, and single and multi-year Graduate Fellowships). Dr. Srinivasan noted, “Mo Saminy exemplifies excellence in scholarship and research, of course, but coupled it with an extraordinary dedication to mentoring his students for success.” The University Distinguished Scholar Award, which was established in 1978, is supported by the Ohio State Office of Research. Recipients are nominated by their departments and chosen by a committee of faculty, including several past recipients of the award.

Dr. Saminy, who has been a member of the department since 1985, is a Fellow of the American Institute of Aeronautics And Astronautics, the American Physical Society, the American Society for Engineering, and the American Society of Mechanical Engineers. He is the second member of the department to receive the award since 2007.

Mazumder Elected As Fellow of ASME

Sandip Mazumder, associate professor of mechanical engineering, was recently elected as Fellow of the American Society of Mechanical Engineers (ASME). Mazumder was recognized for his distinguished contributions in three important mechanical engineering fields: his early groundbreaking work on the interactions between turbulence and thermal radiation remains the foundation for this important topic in the field of combustion; his rigorous model of RMD fuel cells have had great impact and have been used by many researchers and are widely cited, and his pioneering work on application of the Monte Carlo methods to solution of the Boltzmann Transport Equation for phonons forms the basis of later research by others.

Nuclear Engineering Faculty Awarded $1.5 Million in Nuclear Energy University Programs Funding

The Department of Energy (DOE) has notified two Nuclear Engineering Program (NEP) faculty within the Department of Mechanical and Aerospace Engineering that it will award three grants worth a combined $1.5 million to fund their research through the Nuclear Energy University Programs (NEUP) initiative. Professor Tunc Aldemir, the Principal Investigator (PI) for two of the Ohio State projects awarded DOE funding, has projects titled, “Pathway Aggregation (Clustering) in the Risk Assessment of Proximity and Resistance Physical of Nuclear Energy Systems” and “Methodology Development for Passive Component Reliability Management.” Aldemir’s project is expected to receive over $500,000 annually for three years. Also receiving DOE funding is Assistant Professor Lei (Raymond) Cao, NEP’s program director, for projects titled, “A High Temperature-tolerant and Radiation-resistant In-core Neutron Sensor for Advanced Reactors.” Cao’s project will be funded across three years for over $450,000.

Dapino to Develop New Manufacturing System with Wright Project Award

Professor Marcoal Dapino has received a $1.22 million award from the Ohio Third Frontier Wright Project to develop an advanced manufacturing technology for fabricating novel smart materials and structures. The project title is Integrated Ultrasonic Adhesive Manufacturing and Laser Machining for Realization of Novel Smart Structures. The award will support the establishment of a new manufacturing facility on the Ohio State campus. A comprehensive program associated with the award will be carried out by Edison Welding Institute (Columbus, Ohio) in collaboration with Solidica Corporation, The Boeing Company, Velox, the National Science Foundation Industry University Cooperative Research Center on Smart Vehicle Concepts, Polytech, Honda R&D Americas, Parker Aerospace, Okeane, and Intelligent Assembly Solutions. This is one of only three Wright Project grants awarded in fiscal year 2011.

Engineers, Medical Researchers Receive $1.34 Million National Grant to Study Knee Replacement Outcomes

Assistant Professor Probert Sutton, an Assistant Professor in the Department of Mechanical and Aerospace Engineering, has been awarded a four-year, $1.34 million National Institutes of Health grant to study patients with functional and clinical outcomes following total knee replacement (also known as total knee arthroplasty). TKAs, a common surgical procedure used to treat degenerative joint diseases such as osteoarthritis, work in collaboration with his co-investigators from The Ohio State University Wexner Medical Center, Sutton will explore potential causes for the wide gap that separates those patients who cannot perform the basic activities of daily living, like comfortably climbing stairs, to those who go back to activities they enjoy such as hiking, golfing or playing tennis after a total knee replacement procedure. This award, granted through the National Institute of Arthritis and Musculoskeletal and Skin Diseases Division of the National Institutes of Health, is called an R01 Research Project grant.

Sutton Receives NSF CAREER Award

This past winter, Assistant Professor Jeffrey Sutton, an Assistant Professor in the Department of Mechanical and Aerospace Engineering, has been awarded a four-year, $400,000 National Science Foundation CAREER award for his project titled, “New Knowledge for a New Understanding of Flame Dynamics and Turbulence-Chemistry Interaction from 100 to 1000 Damkohler Numbers.” The objective of this research is to quantify the time-dependent coupling among the highly unsteady flowfield, species concentrations, local temperature, and reaction rates in turbulent flames.
Gary Kinzel.

profession and higher education, to their very positive individual interactions with
doctorate and career advice he offered,” added Assistant Professor Carlos Castro.

Faculty Memorial: James E.A. John

James E. A. John, former Chairperson of the Department of Mechanical Engineering at Ohio State from 1976 to 1983, passed away November 28, 2010. He graduated from Princeton University and received his Ph.D from the University of Maryland.

Ernest O. Doebelin, who taught mechanical engineering from 1974 to 2010, died November 10, 2010. He received his graduate degrees in Mechanical Engineering from Ohio State (MS ‘54 and Ph.D ’58). Professor Doebelin originated the osu curriculum in system dynamics, measurement, and control, and developed eight courses in this area, from
everything from her set up for use in these courses. While a

Faculty Memorial: William E. Clausen

William E. Clausen, a 30 year faculty member of the department of Engineering Mechanics, later Mechanical Engineering, passed away August 10, 2011. His specialty was structural dynamics and vibration measurements. Clausen was co-author of the three last editions of beer and johnston’s classic book of "vector mechanics for engineers: dynamics". "he was such a great teacher and cared so much about his students," recalled Prem Kumar, former student advisor in the department. His passion in life was music. He excelled as cellist and pianist and was organist-choirmaster at st. john episcopal church in Lancaster, ohio for 25 years. He studied in 1985 at the royal school of church music in england. He was an active member of the Columbus chapter of the American guild of organists. Clausen was a member of sigma phi epsilon fraternity, phi beta kappa honorary, columbus chapter of the american guild of organists, st. john episcopal church in lancaster, ohio, american radio relay league (call sign w9rof), and supporter of the mid-ohio food bank.

Retirement: Staff Retirements

The Department of Mechanical and Aerospace Engineering’s long-time machinist and Research Machine Shop Supervisor Gary Gardner retired at the end of January. Gardner began his career at Ohio State in 1981. His retirement plans include many more visits to the John C. Campbell Folk School, located in Brasstown, North Carolina, to further his interests as a woodworking hobbyist. The Folk School has been a favorite vacation destination for Gardner and his wife Joy over the past several years. Later this summer, the Student Machine Shop will be co-located with the Research Machine Shop when the Student Machine Shop move to the first floor of Scott Lab.

Replacing Gardner is Chad Bivens. A certified tradesman of Sinclair Community College, Bivens worked for 15 years at Estee Mold in Dayton, building and repairing molds for the automotive, military, medical, and aerospace industries. He also owned and operated his own business, Velocity Mold, for five years.

 Lester Lee Barham, Senior Director of Development assigned to the Department of Mechanical and Aerospace Engineering since April 2000, retired at the end of April. Barham was an employee of the university for nearly 26 years, having served in various capacities for the Office of University Development. During his time with the department, Lee connected department faculty to our many alumni, and we plan to build on these relationships in the years to come.

Debbie Schneider has filled the vacancy left by Barham. Her previous positions with Ohio State include development roles in the College of Education and Human Ecology and the President’s Club/Special Gifts. She earned an MBA and BS in Psychology and Communication Management from the University of Dayton.

Faculty Memorial: Ernest O. Doebelin

Ernest O. Doebelin, who taught mechanical engineering from 1974 to 2010, died November 10, 2010. He received his graduate degrees in Mechanical Engineering from Ohio State (MS ‘54 and Ph.D ’58). Professor Doebelin originated the OSU curriculum in system dynamics, measurement and control, and developed eight courses in this area, from sophomore to PhD level. He also authored 12 textbooks for use in these courses. While a faculty member at Ohio State he received several awards, including the Ohio State Alumni award for teaching in 1966, American Society for Engineering Education Award for Excellence in Laboratory Teaching in 1987, McGraw-Hill Award of the OSU College of Engineering in 1975, Pi Tau Sigma Award in 1990, and a special recognition from the OSU Mechanical Engineering Department Industrial Advisory Board in 1992. “Ernie Doebelin brought the practice of engineering to the classroom and to our students in a way that few others have done,” said Cheena Srinivasan, chairperson of the department. “He would research commercial products and systems of interest throughly, communicate with their designers and developers in great detail, and relate the underlying engineering to the principles being taught in the classroom, quantitatively and comprehensively. He made engineering tangible to the student.”

Emeritus Professor Denny Guenther paid tribute to Doebelin as well, “I always told my graduate students to enroll in Professor Doebelin’s graduate level teaching classes because they would be very useful in their engineering career. He made the understanding of mechanical measurement systems and their usefulness clear and concise such that the student would take that with them into their jobs. Indeed, many students often relayed their appreciation to me for having taken Doebelin’s class. Ernie was an engineer’s engineer.”

Faculty Memorial: Virginia Bivens

Virginia Bivens worked for 17 years at the university, building and repairing molds for the automotive, military, medical, and aerospace industries. She also owned and operated her own business, Velocity Mold, for five years.

Ernie Doebelin & Ohio State timeline

1954
Finishes his MS program and begins his Ohio State teaching career
1958
Completes his PhD program
1961
Berlin wall is erected
1966
Publishes Measurement Systems: Application and Design and receives Ohio State Alumni Award for Outstanding Teaching
1974
Establishes Virginia Bivens as a woodworking hobbyist
1977
Receives College of Engineering McGraw-Hill Award for Teaching Excellence
1982
Manned Moon landing
1989
Fall of Berlin Wall
1991
Finishes his MS program
1995
Publishes Engineering Experimentation
1998
Publishes Systems Modeling and Simulation
1999
Publishes Control System Principles and Design
2000
Windows 1.0 is released
2010
Publishes Instrumentation Design Studies
2011
Nelson Mandela is imprisoned
2012
Publication of Erratics Anonymous

Feedback

Doebelin’s career achievements. In Moran’s own words, “When a career spans 56 years, as in the case of Ernest Doebelin, it is helpful to keep his major achievements in perspective relative to events—momentous and whimsical—that are often used when thinking of the passage of time.”

Doebelin’s career achievements. In Moran’s own words, “When a career spans 56 years, as in the case of Ernest Doebelin, it is helpful to keep his major achievements in perspective relative to events—momentous and whimsical—that are often used when thinking of the passage of time.”
The enCORE team considers its entry to be a family-friendly solution reducing residential energy needs. Some of enCORE’s unique features include:

- High-efficiency, triple-pane, gas-filled windows
- Super-insulated walls designed to Passive House Institute standards
- A sloped roof to collect rainwater and a bioremediation system to filter and recycle greywater, which is typically the water drained from dishwashers, showers, and washing machines.
- A solar hot air system that uses phase-change technology to reduce heating and cooling loads by up to 20%. (Passive house) standards. This set of standards deals with air-tightness requirements as well as maximum acceptable heating loads. Due to climate variability, there is no exact
- A cost-effective solar array that consists of a flat-plate hot water collector and thin-film PV panels, which can be effective even under overcast skies
- An adjustable screening system that serves as a rain screen and enhances the aesthetic identity of the house.

The floor plan utilizes a sophisticated central core that contains the house’s plumbing, mechanicals and systems. Graduate ME student Matt O’Kelly pointed out that, in keeping with Solar Decathlon rules, all contest entries, including Ohio State’s enCORE structure, comply with accessible design standards. He also noted that, enCORE, like several other entries, features a flat roof (and a separate, angled structure for photovoltaic panels) that plays into the building’s contemporary design aesthetic and makes shipping the house easier, especially given the 12-to-13-ft. bridge clearances encountered on the road trip to Washington, D.C.

The range of contest requirements and team-member responsibilities makes Decathlon participation an exceptionally rich learning experience. Students Brett Kramer, Joel McCoy, and Phyo Aung designed the enCORE HVAC system as part of a senior year interdisciplinary capstone design course. O’Kelly added, “Associate Professor Mark Walter (an enCORE advisor) and I discussed the direction of the HVAC system at length during the proposal stage of the project. We had determined that the house would adhere closely to “Passivhaus” (Passive House) standards. This set of standards deals with air-tightness requirements as well as maximum acceptable heating loads. Due to climate variability, there is no exact recipe for construction of a Passivhaus. However, our entry is close to the Passivhaus standard with some compromises made in order to maintain a relatively low overall construction cost.”

The result of building toward these extremely strict heating load and air tightness guidelines is the need for a radically different HVAC system. The loads are, in fact, so small that a conventional system would not be effective or efficient. O’Kelly continued, “What we have designed was initially centered around a newly available heat pump from Daikin. The Altherma system allows for heating, cooling, and domestic hot water production all in one unit. Tempered air is circulated and exchanged with fresh air through an air handler and an energy recovery ventilator.” While the heat pump could meet all heating and cooling needs, Kramer, McCoy, and Aung were asked to try to integrate solar hot air collectors into the HVAC design. These collectors are actually very simple devices constructed much like a window with a black absorber plate blocking the viewing plane. In fact, in another class, Associate Professor Walter had several students build a hot air collector using window glass and some empty soda cans.

The capstone team was able to connect the hot air system to two devices that operate at different times of the year. In the summer and late spring, the system is used to regenerate a desiccant dehumidification wheel. This wheel helps to dry air sent through the air handler, thus reducing the load on the cooling coil. In the winter, the system is coupled to a phase change material plenum. This plenum acts like a thermal battery. When fully charged the plenum is able to supply the air handler with a boost of stored, solar hot air for up to 30 hours.

Associate Professor Walter expects the enCORE team to make the best options that got the shortest payback time. Participating in the Solar Decathlon competition was the most challenging and the most incredibly rewarding experience of my life, which is why I can’t wait to go back for the 2011 competition,” said Gentry.

Results of the competition will be posted on the department’s web site at mae.osu.edu in early October. If you would like to donate to the cost of constructing the Ohio State Solar Decathlon house, please visit www.giveto.osu.edu/solardeachthon.

For more information about the senior year capstone design course, see the related article on page 3.
This Volleyball Champ

The Department of Mechanical and Aerospace Engineering is proud of all its student athletes, and most especially the success enjoyed by John Tholen, mechanical engineering undergraduate and member of Ohio State’s 2011 NCAA Men’s Volleyball Championship Team. We caught up with John when he had a moment to catch his breath, after the volleyball season ended and spring quarter exams were completed.

Q: When did you know that you wanted to pursue a mechanical engineering degree?
A: I actually didn’t decide on ME until after the end of my freshman year. I spent my first year as an exploration major and finally landed on mechanical engineering after almost picking about a half dozen other majors. My parents always said I should be an engineer because I excelled at math and physics and was intrigued by how things worked growing up. At first I didn’t know if I wanted to deal with all the work of both engineering and a varsity sport but after experiencing some easy classes in my first year, I realized that I had only lost 2 matches in the entire regular season. They became my best friends and I was playing with were great and the coaches try because of my height. I never planned volleyball team suggested I give his sport a try because of my height. I never planned to play the sport around here and get more legs involved, something that I’m hoping our national title will help with as well.

Q: Do you expect to continue to play after college, if so, in what format?
A: I don’t expect to continue playing after college except recreationally and in some adult indoor or sand volleyball tournaments. There are some great leagues that are not too hard to get into overseas where volleyball is a little more popular, and a couple of my teammates are doing that. To play professionally here in the US your only option is beach volleyball, but it’s a tough gig to make money in unless you’re one of the top guys.

Q: Favorite volleyball term?
A: My favorite volleyball term is probably “stuff block.” Nothing feels quite as good as blocking someone’s attack straight down into the floor, and it also happens to be how we won match point of the national championship match.

Q: Do you expect to continue as middle blocker next season?
A: I will be playing middle blocker again next season. We lost a great 5th year senior at the position in Kevin Heine along with several other starters. We have a very solid group of seniors though so if I can step in and have half the impact he did, we’ll be doing pretty well.

Q: If you’re a smart phone or tablet user, do you have a favorite app – maybe one that’s designed for engineers or volleyball players?
A: I just recently upgraded to the iPhone so I haven’t gotten to explore all of the apps yet or found any related too much to volleyball or engineering but I’d have to say my favorite so far is Twitter. I’m new to it, but it’s pretty entertaining to sort nonsense back and forth with my teammates. You can follow me at @djohntholen.

Q: When do you expect to graduate?
A: I will not be graduating until spring of 2013. I redshirted my freshman year (2008-2009) so I still have two more years left. It is certainly not bad stretching out the ME degree over five years though, especially with a sport on the side. I’m in no rush to leave Ohio State. I can’t imagine life getting much better than it is here.

The OSU Men’s Volleyball team will begin play again in January at St. John Arena. Admission to OSU season volleyball matches is free. Check the OSU Athletics web site for scheduled dates and start times. www.ohiostatebuckeyes.com

CURRICULUM REFORM FUND

As you may surmise, the Department of Mechanical and Aerospace Engineering is investing considerable resources to prepare for the switch to semesters next year.

The sophomore design class and the senior year capstone course, featured on pages 2 and 3, are but two components of a larger vision of a renewed ME curriculum to be implemented a little over a year from now.

As noted in the Chairperson’s newsletter to alumni last December, at no other time have we attempted to simultaneously alter to a significant extent a dozen required courses and six elective courses. Implementation of these changes will incur costs associated with faculty effort during the summer months when they are not compensated, graduate associate costs, equipment acquisition costs, and costs involved in third-party evaluation and assessment of the changes. A little more than $2.5 M is needed for implementation, of which $0.75 M is being covered by the department as part of the normal overhead incurred in the semester conversion, leaving $1.28 M to be raised from other sources. As noted in the 2010 year end newsletter, Ralph Rockow (BS, MS, ’58) has graciously pledged half of the needed amount. His pledge includes a matching component in the form of a challenge, with the provision that we raise the remaining half, namely $640,000, from other sources.

We are most especially thankful for and keenly aware of the efforts of those who are aiding us in this activity. To assist us in completing the work that must be done to reform the curriculum, please consider a gift to the ME Curriculum Reform Fund ($130,000). Donations may be made online at giving.osu.edu or via this newsletter’s pledge form insert.

With your assistance, we will be able to seize the opportunity afforded by our switch to semesters and maximize the impact of this change, and be among the national leaders in re-tooling mechanical engineering undergraduate education.

New Dean for College of Engineering

This past April, Dr. David B. Williams became the new Dean of the College of Engineering at Ohio State. Formerly president of The University of Alabama at Huntsville, Williams is a native of Leeds, England, and holds BA, MA, PhD, and ScD degrees from the University of Cambridge.

“We are very fortunate to have attracted David Williams to Ohio State,” said President E. Gordon Gee. “He has a superb track record as a scholar and an academic leader, and he has created substantial partnerships to spur innovation and the commercialization of faculty discoveries. Dr. Williams will build on the strong progress made by Greg Washington in his service as interim dean.”

“I know that the College of Engineering and the university community join me in thanking him [Greg Washington] for his superb dedication, energy, and leadership as interim dean. Under his leadership, the college has progressed significantly.”

Before joining the University of Alabama at Huntsville in 2007, Williams spent 30 years at Lehigh University in Bethlehem, PA. At Lehigh, he earned extensive academic research and administrative credentials, serving as professor of materials science and engineering and in many administrative posts.

His research and administrative experiences were strongly supported by many federal agencies, including NASA and the U.S. Army.

Greg Washington, who served as interim dean for the previous three years, recently accepted the position of Dean of the Henri Samueli School of Engineering at the University of California, Irvine. Washington joined the ME department in 1995 as assistant professor, was promoted to associate professor in 2000 and professor in 2004. In 2005, he assumed the role of associate dean for research in the College of Engineering and was named interim dean in 2008. We thank Greg for his many years of service to the department, the college, and the university, and wish him well at UC Irvine.
Alumni Updates

Frederick R. Buoni, MS ’67 and PhD in NE ’71, retired from Florida Institute of Technology in 1999. After his retirement, he was Associate Dean of Engineering and Interim Dean of the School of Engineering. He enjoys traveling with several local choruses and will participate in the 2010 Spring Sing of the Alumni on Syros Island, Greece, this summer. Married Dr. Mary Buoni, on May 1, 2010.

Richard Hammond, ’69, retired as Plant Manager, Bekker Corporation, Rome, Georgia in 2007. Since then, he has served, part time, as Project Leader for the Northport Georgia State University Work Ready Region, a workforce development initiative organized under the Georgia Governor’s Office of Workforce Development.

Frank M. Nalbant, ’69, is a professor at University of Connecticut teaching Entrepreneurship. He also serves on the Board of Directors for the University of Vermont Business School, Windham Hospital, William Paterson, CT, University of CT/Middletown CIT/CTAE & Federal Governments Downtown.

Richard Pender, ’69, retired from FirstEnergy Corp. after 32 years of service. Presently working as a consulting engineer. Brunswick, OH

David Boerner, ’70, from SPARx, Inc./Cobalt Analytic Solutions in May 2010. Continue to do some part-time engineering consulting in Ece, CO.

Art and Norma Batts, ’70, has expanded family’s computer and local Internet service, SkyRunner, that serves the Mohican area of OH, you can visit a full-electronics store and an Internet Cafe in Loudonville, OH.

Troy (Tim) Craig, BAAE 72 and MSME 74 & Cecilia (Cali) Craig ’74, sell celebrate 40 years of marriage at the end of 2011. Living in northeast California, Tim and4 have continued their 35 years of involvement in high school robotics competitions. By helping to organize local competitions and giving presentations on technology and project management to students and mentors, they help to encourage young people to consider engineering fields of study and work. Gail works for IBM as a pursuing a PhD in Education. Tim is currently a law clerk at Stanley Law Group, LLP. He is also a third year law student at Capital University in Columbus, OH.

Don Richards, ’74, has been celebrated. Check the web site to follow along as the Alumni Association continues to highlight additional Buckeyes who are notable for their achievements and contributions. Visit www.ohiostatealumni.org.

if you’re a frequent visitor to the Ohio State Alumni Association web site, you’re aware that this past spring the organization began celebrating alumni with a running feature titled “100 Buckeyes You Should Know.” To date, ME grads Jeff Rodek (’75 BS) and Ralph Reckow (’58 BS/MS) have been celebrated. Check the web site to follow along as the Alumni Association continues to highlight additional Buckeyes who are notable for their achievements and contributions. Visit www.ohiostatealumni.org.

In the Loop
Please continue to keep us posted about your activities and accomplishments. Visit us online at http://mae.osu.edu/alumni/update

Social Media Sites

Facebook: www.facebook.com/OhioStateMAE

YouTube: www.youtube.com/OhioStateMAE

twitter: osuengineering (@osuengineering)

Join us!

Call for MEAS Board Members

Dear ME Alumni,

Over the past five years, I’ve enjoyed serving as board president for the Mechanical Engineering Alumni Society (MEAS), working with other board members to plan events for our alumni, and interacting with many of you at MEAS-sponsored activities, especially the annual football tailgate event during Reunion Weekend.

I’m very proud of how we’ve increased our outreach and engagement with undergraduate and graduate ME students. Through your generous support, we’ve doubled the number of cash awards we give out each year at the department’s awards banquet. I’m also proud of how MEAS has utilized several online tools to reach out to our membership to keep everyone connected to each other and to the Department of Mechanical and Aerospace Engineering. Many of you are frequent visitors to our society group page on Linked In and our society’s Facebook Page. And now, our new web site (http://meas.clubexpress.com) makes it even easier to renew membership and register for society events.

Our society board meetings, too, are more accessible to members everywhere as we adopt newer teleconferencing methods for interacting with each other. I am aware of many of you in your careers and are appreciative of the education you received at Ohio State and the opportunities that earning your degree created for you. I invite you to take this opportunity to give back to your alma mater by considering how you might be more directly involved in the present business of our organization – the way in which it will evolve and how it will continue to support graduate and undergraduate students. There are now several openings on the MEAS board of directors, including our own position. I have served as president since 2006 and have determined that it’s time to pass the torch to another individual who shares my enthusiasm for the direction of our society. We are also seeking nominees for vice president, treasurer, membership chair, and events chair. Current board members will continue to provide support to new board members during this transition period.

Thank you for giving me the opportunity to be your society president. I encourage you to call or email me (or any of the other current MEAS board members) to submit your name for consideration as a MEAS board member. This is a great opportunity to share your talents and ideas, while polishing (or developing) valuable leadership skills. I look forward to hearing from you and appreciate your support of the Mechanical Engineering Alumni Society.

Sincerely,

Rich Granger (BS ’98, MS ’99) President, MEAS

granger.9@osu.edu

CELEBRATING 100 BUCKEYES YOU SHOULD KNOW

Alumni are invited to attend Graduate Research Day, Friday October 4 in Scott Lab and the MEAS sponsored tailgate at Scott Lab on Saturday, October 5. See maes.osu.edu for details.

Scott Lab on Saturday, October 5.

Alumni Updates

1980s

Beck W. Gilbert, ’80, is a senior design engineer with General Motors Advanced Vehicle Design Center, working on prototypes for future GM vehicle platforms.

J. Wesley (Wes) Hines, PhD NE ’94, MS NE and MEd in 1998, has been appointed the head of the Nuclear Engineering Department at the University of Kentucky. His appointment will begin on or before January 1, 2012, once the university has concluded its search for a permanent vice chancellor for research.

Douglas C. Langston, ’97, was recently appointed to the Interagency Standards & Regulations Authority for Young Engineers during the SAE International 2011 Governments’ Industry Meeting, held earlier this year in Washington, D.C. He has been employed by Honda since 1997.

Victor (Scott) McBride, ’95, is employed as a quality advisor at Daimler Chrysler Power International, Inc., in Lancaster, OH. He has earned the status of Certified Quality Engineer through the American Society for Quality.

Antonio F. Rodrigues, MS ’95, is the National Radio Astronomy Observatory’s Director and Science Director for the National Radio Astronomy Observatory and more specifically for the ACRA Project (Atacama Large Millimeter Array) being constructed on top of the Andes mountains in northern Chile at 5000 meters above sea level. He is an Antenna IPT Engineer for the North American Antennas being built by General Dynamics.

Joe Saba, ’96, is now the Chief of Operations for the IP Solutions and Ondusible Delivery (IPDD) business unit at CGG, a large FT consulting firm.

Scott Snyder, ’98, is currently a board member at Ohio State University’s College of Engineering. Mr. Struminger, ’08, is currently a law clerk at Standley Law Group, LLP. He is also a third year law student at Capital University in Columbus, OH.

Ryan Noward, ’94, works as a Senior Consultant in Ernst & Young’s Performance Improvement Practice with the Customer group. Earned MBA from University of Southern California’s Marshall School of Business in 2010.

David Pan, ’98, transferred from Procter & Gamble Food & Care in Cincinnati, OH to Procter & Gamble Beauty & Geothermal Gifftes Blades and Razer edge, MA. He is also the Operations Manager and Collegiate Committee Co-Leader for the MEAS Board of Directors.

Dave Karpinski Engineering. Major project includes the design of mechanical systems for the Cleveland Convention Center and Medical Mall.

Don Richards, PhD, ’81, was appointed Director of the Center for the Practice and Scholarship of Education at Rose-Hulman Institute of Technology in Terre Haute, IN.

Luis Alberto Rejas, PhD ’86, MS ’84, is a Machinery Engineer in Exhoxfield. Currently assigned as Head of Rotating Equipment Engineering in ResaQ in Qatar.

Eric Emmons, ’05, was recently appointed to the Aerial Design Engineer position as an Aerial Design Engineer with Honda R&D Americas in Ohio.

Nicholas Yontz, MS ’10, works for Research, Inc., in Bethesda, MD.

Mark Wishart, ’04, is a Nuclear Services Director for GE Hitachi Nuclear Energy in Chicago, IL. He is currently working for GE Hitachi in London, OH.

Eric Bates, ’95 (MBA ’03 Ashland University), is a project manager at Cummins Inc. in Columbus, IN.

Joe Sabo, ’98, is now the Chief of Operations for the IP Solutions and Ondusible Delivery (IPDD) business unit at CGG, a large FT consulting firm.

References to data, Me grads Jeff Rodek (’75 BS) and Ralph Reckow (’58 BS/MS) have been celebrated. Check the web site to follow along as the Alumni Association continues to highlight additional Buckeyes who are notable for their achievements and contributions. Visit www.ohiostatealumni.org.