Moving Company Forward with Applied Engineering Expertise

One of the nation’s fastest-growing moving companies now has an applied engineering sciences graduate at its helm. Randy Shacka (BS '04) is the new president of Two Men and a Truck International, Inc., a Lansing-based company. He is the first non-member of the company’s founding family to assume the role of president. It was started in 1985 by Brig and Jon Sorber and their mother, Mary Ellen Sheets. He succeeds Brig Sorber as president.

“It’s a little humbling to be the first non-family member to become president of the company,” says Shacka. “I have big, big shoes to fill.”

Shacka began his journey at Two Men and a Truck by moving to Florida to help start a Two Men and a Truck franchise there. At the time, he didn’t know anything about moving or franchising.

Now, 11 years and several administrative positions later, Shacka is steering the company into a position of record-setting growth. Two Men and a Truck, which employs about 70 people at its corporate office, aims to reach $250 million in revenue this year. That follows losses in 2008 and 2009, at the height of the real estate collapse, and a rebound that started in 2010. Company officials say Two Men and a Truck since has achieved 35 consecutive months of growth with 19 straight record months.

“We’re on a great path right now,” says Shacka. “My job is really to foster the growth we currently are seeing and do my best to continue to push the brand forward.”

Through the early and mid-2000s, the company experienced tremendous growth. “Our toughest challenge was really just fulfilling the capacity out there and the demand for our services. Sales were easy; the phones were ringing off the hook.”

However, by 2008, the tables had turned. “We were in such an order-taker mentality that when the phone stopped ringing we were kind of left with: How do we sell our services? We had to really change how we did business, starting with that initial phone call.”

Technology Makes Education Even More Accessible

This year marks the sesquicentennial of the signing of the Morrill Act of 1862, which established Michigan State University as the nation’s pioneer land-grant college, ensuring a practical education accessible to all. MSU looks back on its land-grant heritage, but it also looks ahead at yet another move to revolutionize education and make it even more accessible, as it increases the use of technology in teaching.

Technology-assisted learning is not new to MSU’s College of Engineering. Two chemical engineering graduate courses were taught via satellite and videotape in the late 1990s through the National Technological University. In 2000, those courses were converted for Web delivery through MSU and are still offered in that format today.

Also in the late ’90s, MSU offered one section of CSE 231, Introduction to Programming I, online for about five semesters. The course was delivered via dial-up modems, the standard technology at the time, to about 30 students each semester. Since that time, the class has been taught as a blended or hybrid class—wherein part of the instruction is online.

The computer science course CSE 131, Technical Computing and Problem Solving, was first offered online more than five years ago and has since been taught as a hybrid course; lecture material is presented as voice-over screen movies and lab sections in small groups are done live.

The college continues to explore ways to increase the use of technology in teaching. About 40 faculty members recently formed the Academic Revolution Faculty Interest Group (ARFIG), which is composed of a core group of individuals from each department who discuss
2013! It’s a brand new year and a time to look back on the past year. In this newsletter you will find a number of updates about AES students and alumni. We are really proud of one of our alumni, Randy Shacka, who was recently named president of Two Men and a Truck International, Inc., a Lansing-based company—and the first, and largest, moving franchise system in the United States. Congratulations, Randy. Our students also have been successful as they forge careers in applied engineering sciences, and several students have written articles for this newsletter.

In addition, I want to heartily thank Monte Falcoff for his leadership as chairman of the AES alumni advisory board. For the past four years, Monte, an attorney with Harness Dickey & Pierce in Troy, Mich., has displayed solid leadership. During his tenure, many important board practices took form including

- diversifying the board membership geographically,
- enabling board members to participate in meetings through teleconferences,
- increasing faculty, staff, and student participation in board meetings,
- establishing board and AES student interaction through periodic receptions after board meetings, and
- providing input to the AES director on curricular issues.

In particular, Monte

- assisted in the transition from Les Leone (former director of AES) to me,
- wrote a regular column for this newsletter to help keep alumni tuned in to board developments,
- assisted and advised me on the content of the current technical sales concentration and another concentration to be announced soon,
- was a regular at the MSU College of Engineering Alumni Awards Banquet each spring,
- reorganized the board into functional subcommittees with specified tasks, and
- refocused the full board on major objectives. Monte says, “I considered my stewardship of the board to be transitional between the group originally put together and steered by Les Leone with wonderful board leadership by chairmen Steve Trecha and Louis Johnson before me, to a group of mostly different members having different interests and ideas, but with the common goal of furthering the AES program. There is always room for improvement, as in any organization or business, and I am confident that the board can continue to assist the AES program in getting better in every way each year.”

In response to Monte, I would like to say that one of the great delights for me as director of the AES program is the engagement and enthusiasm of our board. We will miss your leadership, Monte, but we are going to be sure you will be no less engaged. Thank you, Monte, for your service and your dedication.

And now I offer a warm welcome to our new board chair, Maura McDonald with Dow Corning Corporation in Midland, Mich. I look forward to working with you.

Happy New Year!

Jon Sticklen, director of the AES program and the college’s Center for Engineering Education Research (CEER) talks about the students’ typical response to the flipped classroom. “At the beginning, they don’t believe that they really need to watch the online videos. But when these students come to class or a lab and experience a couple of sessions when they don’t know what they’re doing, and other students in their group do know what they’re doing, they get peer pressure to perform, to do their homework before they get there. The flipped classroom puts more responsibility on the students.”

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Happy New Year!

from the Director

Jon Sticklen

Education Even More Accessible (continued from page 1)

current teaching methods and available tools, and share ideas and resources. (More information about ARFIG is available at http://ceer.egr.msu.edu/the-academic-revolution.)

This fall, EGR 210, Global Systems, was offered in part online. It is taught by Ronald Rosenberg, associate director of the AES major in the College of Engineering. Each year, about 60–70 students take the class, which is a core course in the AES curriculum.

“To make an online course, I think you have to start by ‘flipping the class,’” says Rosenberg. “A ‘flipped class’ reverses the usual formal learning pattern for students.

Conventionally, we present material in class and the student reviews it, does problems, and tries to apply the material on his or her own,” says Rosenberg. “In a flipped classroom, the student takes in the material—such as viewing online videos—on his or her own before class. Once in class, the material is applied, and problems are attempted with immediate guidance and feedback from peers and instructors. Classroom time is filled with active learning.”

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In January 2013, introductory computer programming—CSE 231—first taught as an online course in the late 1990s, will again be offered online. Serving more than 200 students a semester using the Python programming language, CSE 231 students will soon have access to a new interactive tool called iPython.

“Our plan is to put one section of our course online spring semester,” says Richard Enbody, associate professor of computer science and engineering and co-instructor of CSE 231. He explains that iPython is a brand new tool and may not be ready to incorporate into the class at the beginning of the semester, but it will be utilized as soon as it’s feasible. “Once it’s ready, we’re going to transform our entire course to that,” says Enbody. “We think we are going to have a better introductory course than anyone else.”

According to Enbody, iPython will also affect research. “We think that this will be a game-changer for research,” he says. “You can publish a scientific paper, embedding the code right in the document. Another researcher who’s reading it can actually rerun your code. Your research paper will become a dynamic document!”

“The opportunity for solid online instruction and the use of other types of technology is only going to grow,” says Sticklen. “The goal of CEER is to develop an environment where we can have more distance education and more hybrid education, and make better use of web tools.”

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Moving Company Forward (continued from page 1)

In order to change with the times, the company hired people with expertise in key areas of the business, including finance, sales, and marketing, in order to increase the skill sets needed to emerge as a stronger company and to better support and train franchisees throughout the world.

Now, Shacka is optimistic about the future. "We still have more than 300 franchise marketing areas available, so that can mean a lot of expansion and growth. When we step back and look at the next three years, it's going to be about executing."

"We have learned that if you are not growing, you are perishing in business. There is no nirvana here. This was a tough lesson but one that has propelled us forward to seeing the record growth we are experiencing."

"Our job is not really to revolutionize the moving industry; it’s to revolutionize Two Men and a Truck; and we are progressing toward this goal, which is a lot of fun right now!"

Shacka says although he is not directly tied to an engineering firm, franchising is a lot like engineering, especially in the service business where solving people’s needs is key.

"Systems are also critical, as well as ensuring that efficiencies, consistency, and outputs are optimized. The AES program definitely helped prepare me for this. I look at key metrics daily to see how our system is performing. The specialized courses in business and supply chain were also essential to my growth."

His advice to students enrolled in the AES program: get out of your comfort zone.

"Challenge yourself to grow and learn more outside of the classroom. I wish I would have reached out to more local businesses in the Lansing community during my time at MSU," he says. "Reach out to the leaders of organizations that operate in the field you are studying. I have grown so much through great mentors and relationships and I think people lose sight of the positive impact these can have on an individual."

Portions of this article first appeared in an August 12, 2012, Lansing State Journal article written by Lindsay VanHulle.

Alumni Updates

Chris Slater (BS ’78) and his wife, Laura (BS Nursing ’80), are die-hard MSU fans. They made the trek from the Chicago area to East Lansing for Homecoming. Despite the rain, they tried to cheer on the Spartan football team. They came to campus again via train with a group of Chicago-area alumni for the MSU-Northwestern football game.

Chris and Laura met at MSU and are both Michiganders. He is originally from Lincoln Park, and she is from Plymouth. Chris’s parents (John and Alice Slater) are also MSU grads, and Laura’s sister Joan graduated from MSU.

Slater is the president of Applied Power Solutions (APS) in Addison, Ill., a company that Chris and Laura started in 1996. Laura is vice president and acts as the company’s business manager, primarily managing cash flow, human resources, and IT.

APS produces clutches and brake systems for manufacturing plants. Customers include Caterpillar, Anheuser-Busch, paper mills, steel mills, and stamping plants. The company’s largest vendor is Eaton Corporation.

"Engineering arts was a great degree for me," says Slater. "I had the basics of mechanical engineering with business classes. I worked for Dana Corporation for 20 years before we started APS 17 years ago."

Chris and Laura have three grown sons who have engineering degrees but, alas, they did not go to MSU.

Aeron Dent (BS ’87) returned to campus in June to participate in the MSU Purchasing and Supply Chain Management Executive Seminar. He is the vice president of indirect procurement for Merck & Co. With more than 20 years’ experience in supply management, Dent has held a variety of leadership positions with Delta Air Lines, Honda, BMW, and Deere & Company. He currently serves on the board of trustees of Morehouse School of Medicine in Atlanta, Ga., and has previously served on the board of directors for the National Minority Supplier Development Council. In addition to his bachelor’s degree, Dent has an MBA from the Goizueta Business School at Emory University.

Ry Alford (BS ’82) is now the senior account manager for the Comprehensive Technical Group, based in Atlanta, Ga. His company, which is a leader in providing broadcast and audiovisual solutions, helped with the recent upgrading of the video replay system at Spartan Stadium and the Breslin Center.

If you are an AES or engineering arts alumna/alumnus and have a new job, have started a new career, have received a promotion or award, or are involved in an interesting activity, please let us know. We will include the info in the next Alumni Update. You may complete the Keeping in Touch info on the last page of this newsletter and return as indicated, or send an e-mail to sticklen@msu.edu. Please be sure to include your e-mail address.
Study Abroad Is Eye-Opening Experience

This past summer I went on a journey halfway around the world that I am sure I will never forget. I completed my sophomore year at Michigan State and packed my bags for a five-week study abroad to France. Yes, I was nervous but with that came excitement. I did not know any French besides the basic "bonjour," "ca va," "au revoir." I did have a few things going for me though. I had tickets to get where I needed to go (that is always a good step). I had classes scheduled and notebooks packed. I also had a friend from Michigan State coming along for the adventure.

A little background about myself: I am a junior studying applied engineering sciences with a concentration in supply chain management and a specialization in natural resource recreation. Honestly, it is perfect for me. When I chose to come to Michigan State I could not decide between an engineering or business degree. Now I am getting the best of both worlds.

My study abroad program was in Lyon, France—the second largest city in France, behind Paris, of course. It is a historical city that is known for its outstanding cuisine. I also discovered that it is more industrial than I had expected.

We arrived in Paris by plane, and then hopped on a high-speed rail to Lyon, and finally, after two metro trains we made our way to the residence where we stayed. I shortly found out, after settling into my camper-sized bedroom, that there were 26 students in the program, from nine different countries around the world. After two metro trains we made our way to the residence where we stayed. I shortly found out, after settling into my camper-sized bedroom, that there were 26 students in the program, from nine different countries around the world. By going to Lyon, France, I would have never expected to learn so much about the world's cultures, from labor strikes in Egypt and Tunisia, to traditional cheese in Norway. As students, we were taking two courses: a one-credit French course (thank goodness) and a three-credit scientific course. The 26 of us were split up based on our French skills, beginner to advanced. We were also split between four different Universities in Lyon for our scientific section. We chose from chemistry, polymers, agriculture, and conversion of energy. I chose to complete the conversion of energy course at ECAM (Ecole Catholique des Arts et Metiers).

ECAM is on a hill overlooking the Old Town in Lyon. Along with the view, the class was very interesting. We discussed basic energy resources and renewable resources. We went in-depth with how conversions from one form of energy to another take place. There were seven of us in the class, from four different countries. Learning with other international students is an experience like no other. I observed how everyone learned a little differently and how some students had studied these topics before. I also saw how working on a group project with young adults, who do not know each other very well and come from different cultures, can be challenging. Going on this trip was one of the best decisions I have made in my educational journey.

Along with our classroom learning, we had free time to visit different areas of France. Four of us even hopped on a bus at midnight one Friday night and headed to Milan, Italy, for a day. Combined with the excursions that the program provided, which were to vineyards, museums, and even CERN in Switzerland to learn about nuclear research, and the weekends we had to explore France, we saw and experienced a culture and breathtaking views that we could not see living back home.

In addition to financial support, the AES program actively seeks alumni to help educate outstanding graduates. Here are a few ideas:

• Volunteer your time to participate in an industry panel or speak at a meeting of the Society of Applied Engineering Sciences.
• Serve as a mentor to a current AES student.
• Volunteer to serve on the AES Alumni Advisory Board.

• Encourage your company or organization to financially sponsor an applied engineering sciences activity, especially the senior capstone projects.

To start giving back to AES or to discuss all the possibilities, contact AES through Jon Sticklen, AES program director, sticklen@msu.edu.

—Megan Seavoy

Give Back to AES

The AES Discretionary Endowment Fund was established to help build the AES program, support students, and enhance the quality of an AES education. If you are interested in making a contribution to the AES Discretionary Endowment Fund or to learn about other opportunities for giving, please complete the Gift Information on the last page of this newsletter.
Frontiers of Engineering Education Symposium

Jon Sticklen, director of the Applied Engineering Sciences program and of MSU’s Center for Engineering Education Research (CEER) was among 72 of the nation’s engineering educators who participated in the 2012 National Academy of Engineering’s (NAE) fourth Frontiers of Engineering Education (FOEE) symposium. Dean Aslam, professor of electrical and computer engineering, also participated. Participants were nominated by fellow engineers or deans and chosen from a highly competitive pool of applicants. ECE professor Percy Pierre nominated both Sticklen and Aslam.

Sticklen joined other faculty members from across the country who are developing and implementing innovative educational approaches in a variety of engineering disciplines. Participants shared ideas, learned from research and best practices in education, and left with a charter to bring about improvement in their home institutions.

“The Frontiers of Engineering Education program creates a unique venue for engineering faculty members to share and explore interesting and effective innovations in teaching and learning,” says Charles M. Vest, NAE president. “We want FOEE to become a major force in identifying, recognizing, and promulgating advances and innovations in order to build a strong intellectual infrastructure and commitment to 21st-century engineering education.”

This year’s program, which was held Oct. 14-17 in Irvine, Calif., focused on innovations in the context, curriculum, and delivery of engineering education.

“It is absolutely critical that U.S. engineering educators learn how to become more effective in the classroom, utilizing technology and pedagogy in creative ways in order to produce more innovative graduates who have the ability to address the complex problems of the 21st century,” says Larry Shuman, senior associate dean for academic affairs and distinguished service professor of industrial engineering at the University of Pittsburgh, and the chair of the FOEE planning committee. “To do otherwise will cede the nation’s place as an educational leader to other, more aggressive countries. At FOEE these outstanding faculty will learn about the newest educational developments ranging from MOOCs (massive, open, online, courses) to online publishing.”

For a poster session that all FOEE attendees participate in, Sticklen presented his view on one aspect of flipped classrooms—the out-of-class delivery of information by voice-over web movies. (See related story on page 1.) Part of the poster focused on the last five years of work bringing the flipped model to one of the classes Sticklen teaches (CSE 151) and the research results he has produced. Looking forward, the poster will also include plans for new research utilizing the MSU REAL classroom facility for AES 310, a junior-level course in applied engineering sciences that focuses on the analysis of sustainable systems.

The 2012 Frontiers of Engineering Education symposium was sponsored by John McDonnell and the McDonnell Family Foundation.

The mission of the National Academy of Engineering is to advance the well-being of the nation by promoting a vibrant engineering profession and by marshaling the expertise and insights of eminent engineers to provide independent advice to the federal government on matters involving engineering and technology.

I Did It!

Whenever I tell someone that I am studying toward a degree in the MSU College of Engineering, and then tell them that I plan to finish in four years, many people are surprised. Engineering students are well known for taking at least five years to complete their degrees, and as a student in applied engineering sciences (AES) I just wanted to say that I’m doing it in four and that it is possible!

Currently, I am about to begin my third year at Michigan State University. I did not come in with any honors credits and I didn’t know exactly what I wanted to do when I started school. After attending an “Engineering Careers” fair in the spring of my freshman year, advisers listened to what I was interested in and they directed me to AES. Needless to say, it was and still is a perfect fit for me.

Some of the classes I took freshman year were not pertinent to my major, but after focusing my course schedules to the AES curriculum starting my sophomore year I have managed to find a way to complete my education in four years instead of five. Now, just to be clear, I’m not some insane student taking a billion credits a semester. In fact, my freshman and sophomore years I totaled around 30 credits each. That’s about 4.5 classes a semester. I also managed to get a job at the MSU gyms as a group exercise instructor and still have free time to go to the football games and enjoy campus life.

I took a four-credit class when I went home the first summer at a local community college. This summer I stayed in East Lansing, and I took nine credits. That was only two classes the first half of summer (one was online even!) and one class the second half of summer. I also picked up a second job at the MSU Dairy Store. With my plans to study abroad next summer, I am taking two university-required classes (Integrative Arts and Humanities and Integrative Social Sciences) to acquire another nine credits next summer. This enables me to have only 21 credits left that I need to complete my senior year. That’s 12 credits in the fall and 9 in the spring! I will even be able to take an elective my senior year.

Using the resources that MSU has offered is what brought me here today. Getting an on-campus job was one of the best things I’ve done as they usually have set schedules which allowed me to plan better and learn time management. Working at the gyms has been great because it allots time for being active as well as having an income. Taking summer classes was the big difference for me, and studying abroad is what I’m most looking forward to. MSU has an elite study abroad program with so many opportunities.

The point that I am trying to make is that it is possible! I still have a life, I take only about 15 credits a semester, I was able to work a job (even two) and still enjoy water sports near my home in Sanford, Mich., during the summer.

An engineering degree can be intimidating and may seem time consuming, but if you look at your options and take advantage of some of them, you can achieve anything. Know your goals and don’t be afraid to push yourself to see what you’re capable of accomplishing.

— Robin Lawson
AeS Junior thankful for Scholarship

My name is Hannah McQuade and I am a junior from Ann Arbor, Michigan. I am so thankful for receiving an AES scholarship. It aids my drive for further education as well as inspires me to keep up the hard work I’ve been doing.

I chose AES because of its focus on continuous learning. I love the mixture of engineering and business courses. I have to constantly adapt to the changing coursework. AES also allows me to get a minor in computer science, which I believe will enhance my work-world versatility.

I am the vice president of the Society of Applied Engineering Sciences, a position I hope to use to spread the word about such a rewarding major. During both my summers as a student at MSU, I’ve interned with Clutch and After Market Program Managers (2011) and the vehicle test group engineers (2012) at Eaton Corp.

Hannah McQuade is the daughter of Tom and Connie McQuade.

New SAES Executive Board Members

The new executive board members of the MSU chapter of the Society of Applied Engineering Sciences (SAES) are: Hannah McQuade, president; Katelyn Dunaski, vice president; Kylee Raby, administrative assistant; Ryan Wrench, treasurer; Megan Seavoy, community involvement and fundraising chair; and Jared Kavinsky, webmaster.

SAES is an MSU student organization that fosters interest in and promotion of the applied engineering sciences major. The group sponsors activities to make members more aware of industrial opportunities. Membership is open to AES and non-preference engineering majors.