

School of Business and Economics

Impact

Fall 2012

Michigan Tech



New
Venture
Competition



It's an honor and a pleasure to address the alumni and friends of the School of Business and Economics as the new dean. As some may remember, I taught within the School and served as dean from 1994 to 2001. I'm happy to be back in Houghton with familiar faces, as well as many new ones. Since returning to campus, I've been excited to see the School still bustling with energy and new ideas. We look forward to building the next steps in innovative and global education while immersing students and faculty in enriching experiences.

With that in mind, the concept of networking and relationships leads to future opportunities for us around the world. In this issue of Impact, we explore the bridges built by students, faculty, and staff through competitions, research, and the desire to make a worldwide impact. The New Venture Competition, a partnership between Michigan Tech and Central Michigan University, is an excellent example of this effort (page 4) as is our work in project management (page 8), and other faculty-led competitions (pages 7 and 9).

From there, we focus on three alumni: Maggie Chen '04 finds career success and a balanced family life in the demanding world of international finance (page 11), Greg Horvath '82 discovers what he refers to as "the biggest changes in information technology," and Andy Storm '99 combines engineering and business to help keep troops safe around the world (page 14).

Updates on campus include the new engineering management major and global business minor (page 16), a faculty-led market research project (page 18), and Dean Johnson's award as the 2012 Michigan Teacher of the Year (page 19). Next we have an update on the Sam B. Tidwell red tie campaign from recent CPA recipients and our accounting faculty (page 22).

To round out this issue, the Tech MBA Online class of 2012 completes their degrees with an international capstone trip to Bangalore, India's version of Silicon Valley (page 20). Two undergraduate students also provide their perspective on international travel by answering a few questions about their summer study abroad experiences in Germany and Spain (pages 26 and 27).

Please enjoy these updates from the School. I invite your thoughts and conversations at any time. Email business@mtu.edu or call 906-487-2668.

Stay tuned for more news and stories of our successes.

All the best,

R. Eugene Klippel
Dean, School of Business and Economics



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School of Business and Economics

Impact



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We would like to recognize and thank our Dean's Advisory Council members:

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Impact is produced by

Michigan Technological University's

School of Business and Economics and
University Marketing and Communications

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On the Cover

Michigan Tech and Central Michigan students compete and learn in the New Venture Competition (page 4).

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer.

Michigan Tech and Central Michigan

Teaming Up for

Greater Ventures

Michigan Tech



“These students will make Michigan a stronger and more vibrant place.”

—Deb Zellner

Executive Director of Central Michigan University’s
Isabella Bank Institute for Entrepreneurship



In an exciting new partnership with Central Michigan University (CMU), Michigan Tech is building crucial educational and industrial partnerships across the state of Michigan. The New Venture Competition, which challenges students to develop a full-fledged business plan, creates valuable networking opportunities for students, faculty, and the community.

The New Venture Competition began at CMU in 2010 as a way to encourage the entrepreneurial spirit of students. “The New Venture Competition was created to foster entrepreneurship throughout Michigan and provide resources and connections for students to develop an idea into a business,” said Deb Zellner, executive director, CMU’s Isabella Bank Institute for Entrepreneurship. In 2011, the directors invited Michigan Tech to join the competition, hoping to broaden its scope.

Jim Baker, the executive director of Innovation and Industry Engagement at Michigan Tech, was instrumental in building the partnership between the two schools. “It’s the perfect pairing,” he said. “CMU has a large business school and a number of business interests, and Michigan Tech has expertise in engineering, technology,

and business. Together, we can create a wide range of collaborative educational and entrepreneurial opportunities for students.”

With both universities involved, the New Venture Competition grew to thirty teams. Over the course of a year, student teams from each school developed business plans for innovative businesses. The 2011–12 teams created a wide range of ideas. One proposed business, Picket Books, aimed to reduce textbook costs at Michigan Tech. A CMU team, Natural Resource Generation, designed an energy-harvesting floor tile able to harness mechanical energy wasted by humans. Another team tackled a large-scale problem by developing bicycle components that are designed to solve transportation problems and reduce costs for millions of people in sub-Saharan Africa.

“The teams presented a variety of creative ideas,” said Zellner. “Working collaboratively to network, learn, and create business ventures between schools, these students will make Michigan a stronger and more vibrant place.”

With a wealth of knowledge and creativity at both universities, the New Venture Competition encourages students to seek out team members who provide the necessary

experience and knowledge to develop a complete, well-rounded business. Thomas Daunais, a Michigan Tech student, found his ideal counterparts across the state at CMU. After responding to a video request for an electrical engineer from several CMU students, Daunais became part of the New Venture Competition’s first cross-university team. Once formed, the team used weekly Skype meetings to stay connected—a simple and powerful strategy that Daunais found to be highly effective.

“I feel that Michigan Tech students could greatly benefit from working with students from other universities,” he said. “Every university has its own niche and its own way of going about solving problems. This was very apparent in my interaction with the team from Central. The combination of the different problem-solving techniques and ideas allowed my team to win the technology award in the competition.”

Over time, the New Venture Competition program administrators would like to see more teams that include students from both universities. To facilitate CMU-Michigan Tech teams, the competition directors are developing a central information hub that will connect all participants. “The potential



for collaboration is one of the most exciting things about a joint competition,” said Baker. “The total sphere of possible experts is much larger, so each business is built by team members with complementary strengths.”

According to Baker, Michigan Tech students also benefit from the access to experts and audiences outside of Houghton. “For new businesses, most customers will be outside of the Upper Peninsula,” he said. “The New Venture Competition offers opportunities for increased exposure and connection to professional and research networks outside the area.”

The New Venture Competition culminates in a competition day, which takes place on the CMU campus. During the competition, finalists present their business ideas and compete for more than \$60,000 in awards and in-kind service.

Ben Mitchell, a member of the first-place team, praised CMU for its organizational efforts. “They did a tremendous job coordinating the whole event, with all the judges and student teams,” he said. “It was very well orchestrated.”

On the heels of 2012’s successful competition, CMU and Michigan Tech hope to continue to grow the program, potentially including additional schools and generating more start-up ventures. ■

Help for a Bicycle Way of Life



In the 2012 New Venture Competition, Michigan Tech teams placed first and third overall. The winning team members, Ben Mitchell and Wade Aitken-Palmer, designed bicycle tubes that eliminate flat tires. Their business, Baisikeli Ugunduzi (Swahili for “modern bicycle”), could benefit the fifty-million sub-Saharan Africans who depend on bicycles for transportation. Mitchell and Aitken-Palmer came away with the \$30,000 first prize and the \$10,000 prize for Best Social Venture. The two are currently building their business in Kenya and hope to expand across Africa.

Another Michigan Tech team, the aforementioned Picket Books, took third place in the New Venture Competition. Team members Kyle Johnston and David Shull developed a business that allows students to rent textbooks from each other online at reduced costs. The team took home a \$5,000 cash prize. ■



Students Tackle Savings Rate Crisis in iOMe Competitions

As part of two national iOMe competitions, students in the School of Business and Economics were challenged to tackle growing financial concerns about retirement savings for their generation.

iOMe (“I owe me”) is a national competition in which students evaluate the growing debt crisis and produce videos to educate other millennials about the US savings rate.

Members of Senior Lecturer Emanuel Oliveira’s macroeconomic theory and banking and financial institutions courses participated in the 2011 and 2012 iOMe competitions that uphold the premise that, as individuals, we owe ourselves a brighter future. Thus, the concept of iOMe was born. For the past two competitions, students formed their own teams and included individuals with a range of skills, from policy expertise to video production.

In 2011, the students submitted a comprehensive essay and accompanying

video about ways to foster personal savings in the US. They proposed detailed plans that create incentives and remove barriers to financial savings for the millennial generation. Teams were required to include credible supporting research and provide evidence that their proposals would succeed.

During the first part of the competition, one of the Michigan Tech teams received an honorable mention, which included a \$2,000 prize. The team members were Katie O’Connell (economics), Adam Stigers (economics), Tianlu Shen (environmental engineering), Teddy Broe (economics), and Walker Derby (finance).

Oliveira commended the teams for their hard work. “The students put together an excellent essay that contained innovative policy recommendations, considerable statistical analysis, and it was very well written. Fixing the savings-rate crisis in America will take a highly concerted effort and will likely require people to

make behavioral adjustments that may cause minor discomfort in order to promote a long-run sustainable savings scheme.”

All four Michigan Tech teams made it into the top ten for the second portion of the competition: the iOMe Money Smart Week Video Contest ’12. Teams submitted their videos for voting in early 2012.

Eli Karttunen, who participated in both competitions, noted the value of tackling real-world problems, “One day, the issues we face right now will be corrected through innovative thinking and proactive policy formation.”

For more information about iOMe, go to www.iomechallenge.org. ■



APMP Continues Stellar Record at RISE Competition

The Applied Portfolio Management Program (APMP) teams have continued their record of excellence in the investment portfolio competition for the Redefining Investment Strategy Education (RISE) forum. In 2012, Michigan Tech’s Black team placed third in the value investment category. In 2011, the Gold and Black teams took third place in the value investment category and fourth place in the balanced investment category. The RISE forum is widely regarded as the most prestigious student investment forum in the world.

In the year leading up to the RISE forum, universities with student-managed portfolios compete against one another in the areas of growth, value, blend, balanced, alternative, and fixed-income styles of management. The top-performing teams in each investment

category are determined by twelve-month, risk-adjusted returns. At the end of the year, the Michigan Tech teams travel to the University of Dayton for an educational workshop and announcement of winners in the yearlong competition.

In addition to the competition, students can network with top investment professionals. They participate in panels with Wall Street experts to discuss the economy, domestic equities, alternative investments, and international and emerging markets. Other activities include specialized investment sessions and skill-enhancement workshops in security analysis, portfolio construction, risk management, and trading simulations.

The RISE competition draws more than 1,500 students, faculty, and professionals from around the world. Eleven APMP

students represented Michigan Tech at the 2012 competition: Jacob Carlson, Zhouli Yuan, Gengyang Pan, Jacob Vehring, Mengjiao Zhou, Wei He, Yihong Yao, Simin Chen, Annette Felton, Nathan Johnson, and Jessica Pakonen.

The APMP teams manage more than \$1.3 million in the equity and fixed-income markets. The fund is supported by donations from alumni and friends, and investment revenues support student travel and scholarships. Established in 1998, APMP teams have placed first at the RISE forum in the value category three times.

Learn more about the APMP team by visiting www.apmp.mtu.edu. ■

Fueling the Growth of Project Management



“I want to make sure that I really know the students—how they perform in class, their work ethic, and where their interests lie.”

—Dana Johnson '80

When Dana Johnson '80 first began teaching at Michigan Tech, she was barely older than her students, many of whom had been her classmates just one year earlier. After teaching accounting and finance classes from 1981 to 1984, Johnson went to work in industry and academia, returning to the School in 1999 as a professor of operations and supply chain management. Over the course of her career, Johnson has witnessed significant changes in business and university operations—and now, she says, the landscape of business education is changing once more.

Some of the biggest changes, according to Johnson, are happening in the world of project management. “It used to be part of someone’s job responsibilities, but project management has evolved into a profession of its own,” she said. “It’s a growing field.”

It’s growing so quickly, in fact, that the Western Michigan chapter of the global Project Management Institute (PMI) launched an educational initiative designed to bring students into the field. Johnson led that charge and brought Michigan Tech into THE Project, a contest designed to support the growth of project management education and practice in Michigan. (More information is in the sidebar on page 9.)

During the competition, each team of students worked with mentors from a specific company to develop a detailed project management plan. They were required to set up meetings, establish a schedule, and develop a targeted plan that worked for their partner company.

“Because the project management processes were at different stages in each company, the two groups had very different experiences,” said Johnson. “It was an excellent opportunity to take what they learned in class and apply it to a dynamic, real-world situation.”



Michigan Tech Teams Place Second and Fourth in THE Project Competition.

The Project Management Institute recently stated there were 90,000 job openings in the United States where businesses require or prefer Project Management Professional (PMP) certification. With this new opportunity, Michigan businesses have also taken notice.

In 2012, Spectrum Health, Steelcase, Amway, the *Grand Rapids Business Journal*, and other state businesses partnered with the Western Michigan chapter of The Project Management Institute (WMPMI) to host an intercollegiate project management competition known as THE Project 2012.

During the inaugural year, two teams from Michigan Tech participated in the competition, which involves putting together a detailed project plan for a specific company. Team B finished in second place overall, and Team A finished in fourth place.

Professor Dana Johnson served as the faculty champion for the 2012 competition. She organized the two teams, including eight students from the School of Business and Economics, and provided guidance throughout the year. Eight teams from six colleges and universities competed for \$10,000 in cash prizes and paid internships at major corporations in West Michigan.

"This is a great opportunity for our students to apply what they learned in the project management course to a real-life situation," said Johnson. "At the competition, students are not only able to network with other teams, but they also can gain valuable exposure to companies that are seeking to hire graduates through a reverse career fair."

The student teams, with their school, business, and PMP mentors, created a project management plan for a business seeking B Corporation certification. The certification permits and protects businesses in making social and environmental decisions. Instead of being accountable only to shareholders, certified businesses must also consider their impact on employees, their community, and the environment.

"B Corps certification allows a business to have a triple bottom-line focus of profit, people, and the environment," said Kelly Talsma, PMP, vice president of education at WMPMI.

"This was a wonderful experience for all of us, and we were very fortunate to place in the competition, meet our mentors, and socialize with the WMPMI board," said Samuel Eberhard of Team B. "All of us are extremely happy we had the opportunity to compete in this competition, and we recommend future Michigan Tech students take part in it." ■

Johnson, who spent twelve years as a business consultant, cannot overemphasize the importance of the professional contacts and practical experience that result from THE Project. "The students who participated in the competition came out with an expanded résumé and a whole new world of career choices," she said. "Before it started, most of the students didn't have enough information to even consider project management as an option. Now, they have a valuable skill set that they can use in any job," she said.

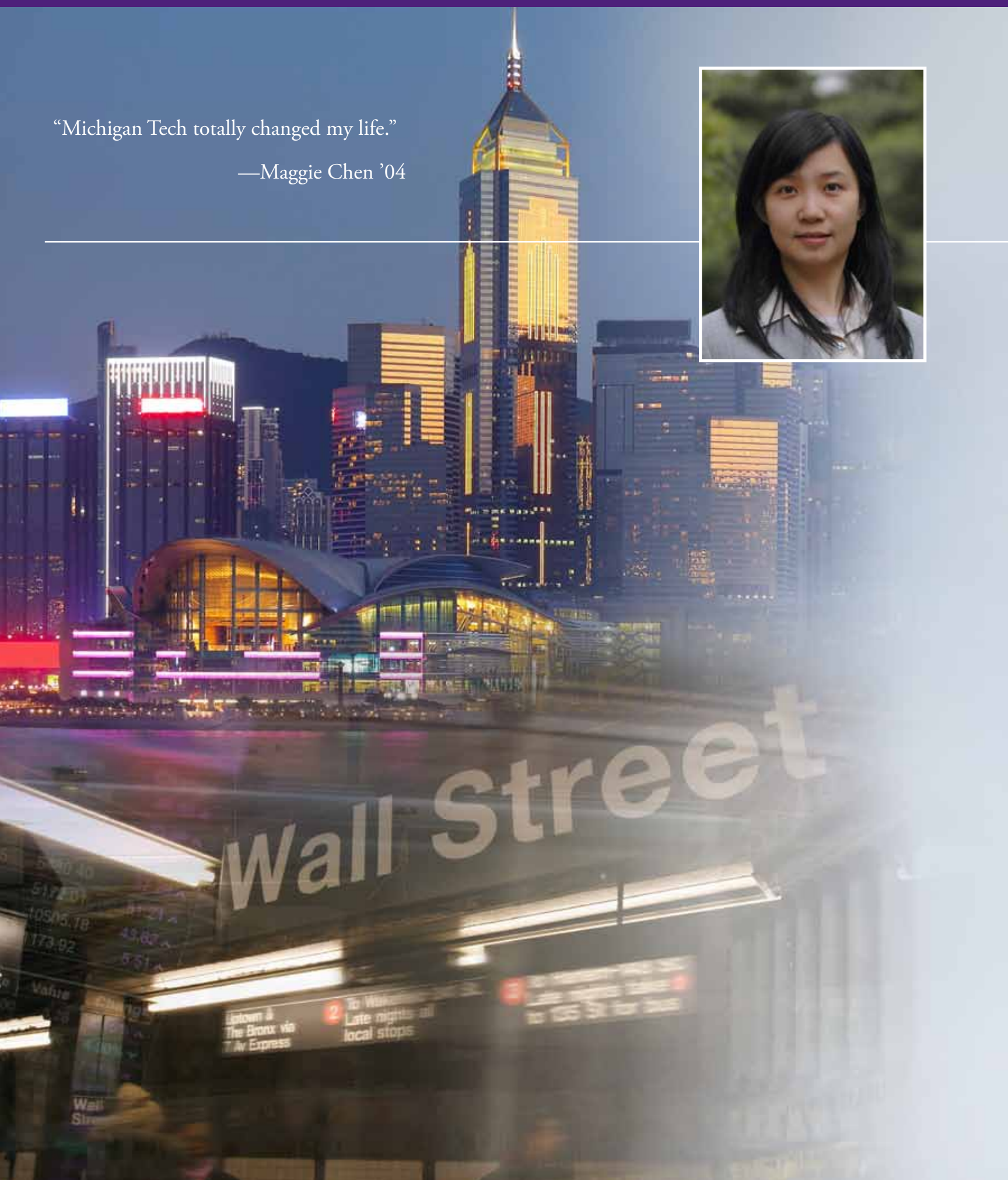
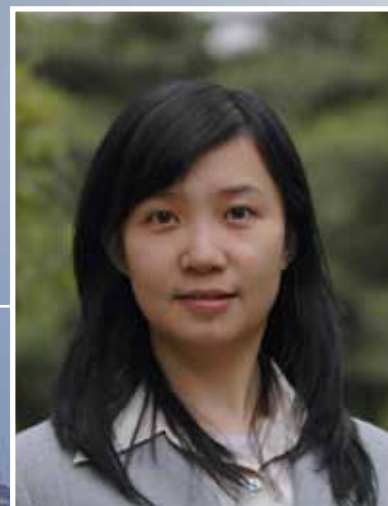
Johnson ensures that her students have opportunities to advance their education. As an advisor and professor, she embraces a highly personalized philosophy to provide in-depth guidance. "I want to make sure that I really know the students—how they perform in class, their work ethic, and where their interests lie," she says. "If I see students struggling, I'll ask them to come in, so we can work together to find their niche. Teaching and advising are more than just telling students which classes to take—it's helping them find a fulfilling and satisfying career."

When she's not working with students, Johnson conducts research in supply chain management. One major research focus involves the supply chain for alternative energy, focusing on biofuels for the automotive and power industries. In a related area, she is studying logistics and supply issues to develop a market for forest residues. A third project, conducted in partnership with a researcher at Virginia Tech, investigates how change initiatives in a company impact the quality of their products or services. She has published extensively about locating optimal biorefineries and measuring attitudinal variables regarding biofuels.

Johnson, who holds degrees in industrial engineering, industrial technology, and manufacturing engineering, embraces the opportunity to collaborate with researchers in engineering and science departments across campus. "The administration is very supportive, and the University's small size makes it easy to work with people in other departments," she says. ■

“Michigan Tech totally changed my life.”

—Maggie Chen '04



Conquering the International Financial Market

Fifteen years ago, Michigan Tech was little more than a name in a guidebook for Maggie Chen '04. Now, the University is an integral part of her storied academic and professional history.

Originally from China, Chen first learned about Michigan Tech as a high school student in Chengdu. After listening to a talk by a former classmate about studying in the United States, Chen developed an interest in an international college education. Her English was strong, and after she passed the Test of English as a Foreign Language (TOEFL), Chen began researching schools.

“At that time, there was not much information for Chinese students who wanted to study abroad,” she said. “My dad had a guidebook that listed the top 300 universities in the United States, and Michigan Tech was one of them. I was interested in the sciences, and my parents wanted me to attend a public university in a safe location, so Michigan Tech was the only school I applied to.”

After her acceptance, Chen—who had never traveled internationally—set off alone for Houghton. The transition was painless, she said, made easier by the welcoming campus community. There were very few Chinese undergraduate students on campus at the time, and Chen had the opportunity to become completely immersed in the US culture. She thrived in the close-knit environment and graduated with a BS in Business Administration.

Since her first days as an international student at Michigan Tech, Chen has moved rapidly through the ranks of the international financial industry. During her undergraduate career, she interned at Citigroup, and after graduation she worked in fixed-income banking at Morgan Stanley and in mergers and acquisitions at AIG Capital in New York City. With several years in industry under her belt, Chen enrolled in the Yale University School of Management and received her MBA in 2010.

With her background, Chen was a natural fit for the international financial market. She accepted a direct-investment position with China Everbright Capital Management in Hong Kong, eventually becoming an assistant portfolio manager in the equities division at SAFE Investment Company. In the future, she hopes to advance to portfolio manager.

The road to success has not been without its challenges. As her professional life developed, Chen was faced with a dilemma that is common among professional women the world over: balancing work and family.

“Being a mother and a professional is very demanding, and women must be prepared,” she said. “I advise young female professionals to make a choice in advance. Either you work hard and move up to a senior level, where there is more flexibility, or you choose a career that will not require you to be in the office for eighty hours per week.”

When Chen became a mother, she chose the latter option, accepting a fulfilling portfolio management job with fixed hours and flexible working options. During her time as an investment banker in New York, she says parenting and working concurrently would not have been possible. “It hasn’t been easy, but I love being a mother, and I love my job.”

To help other Chinese students navigate the process of studying abroad, Chen coauthored a book, *Becoming a US Undergraduate*, which was released in 2002. She served on the Advisory Council for the Advanced Portfolio Management Program at Michigan Tech for several years and encourages students to take advantage of the opportunities the program affords.

“The APMP experience is a realistic example of what it’s like to work in equity management. The hands-on experience managing actual funds is invaluable. The financial industry is highly competitive, and APMP gives students an edge when it comes to job hunting,” said Chen.

Chen is a Michigan Tech champion and doesn’t hesitate to extol the value of her education. The professors at Michigan Tech are supportive and readily available to students, she says, a factor that sets the University apart. Chen credits the supportive atmosphere and personal interaction with instructors as a major factor in her success.

“My experience in Houghton was wonderful,” she said. “If not for Michigan Tech, I wouldn’t have gotten a job on Wall Street, and I wouldn’t have been able to have this amazing career. Michigan Tech totally changed my life.” ■



“In 2012, it’s all one big playing field.”

—Greg Horvath '82

IT Pro Changes with the Times Succeeding in a Global Marketplace

Over the course of his twenty-seven years in industry, Greg Horvath '82 has witnessed significant changes to business standards and operations, including the advent of the Internet and corporate intranets. The biggest change, he says, was not the digital revolution—it was globalization.

"The marketplace and the competitive landscape for companies have changed dramatically since I joined the field," said Horvath. "The terms 'outsourcing' and 'in-sourcing' are archaic. As business leaders, we need to get the work done wherever it is the best value. It's been remarkable to watch the market change over the course of my career. When I started, the success of a business was defined regionally. In 2012, it's all one big playing field."

Unlike many professionals who entered the IT industry in the late 1980s, Horvath chose to stay with one company, Dow Chemical, as the Internet revolutionized business practices. "Management and information systems [MIS] was an explosive industry at that time," he said. "Sticking with one company through all that change was practically unheard of."

Horvath had no trouble finding new avenues within the company. In fact, he says, "I feel as though I've had four different careers. Dow has been excellent about providing new challenges and offering a new landscape of skills to keep me competitive in the professional marketplace."

After graduating from Michigan Tech with a bachelor's in MIS and an associate in electrical engineering technology, Horvath joined Dow Chemical as an applications programmer in the information systems division. He worked in traditional MIS positions for twelve years, progressing through systems design and development, project leadership, management, and management oversight. After getting into management, Horvath spent several years developing the evaluation practices for IT investments, creating a set of standards to characterize the value-added for each new project. During the first phases of his career, Horvath found himself relying heavily on the preparation he received at Michigan Tech, both in technology and in economics and business dynamics.

"The faculty taught a curriculum that was current and hands-on, with a good balance of theory and practical application," he said. "In addition, Michigan Tech has a closeness and connectedness between faculty and students that is valuable and unique."

With the advent of corporate intranets in the late 1990s, Horvath moved into the knowledge and information management sector of Dow. He led Dow's knowledge management efforts, developing practices to help the company learn how to deploy and manage intranet technology while protecting information and intellectual property. From there, he transitioned into auditing, serving as the IT audit director for six years and leading the audit team in managing internal control requirements and risk mitigation.

In early 2012, Horvath accepted a new position as the program director inside of the Dow Sadara Project Office, working with Sadara Chemical, a new, international joint venture between Dow and Saudi Aramco.

The secret to Horvath's professional satisfaction and dynamic, ever-changing career with Dow can be boiled down to two words: knowledge and change. "Learning and knowledge development doesn't stop after graduation," he said. "It's an ongoing process, and people who do not keep up are left behind. It is crucial to take the time to keep up on the latest technology. When my kids got my first text and found me on MySpace, they were blown away. But if you are not learning and developing professionally, and you are not responding to and embracing change, it's time to reevaluate your situation."

In addition to being mindful of their professional development, Horvath advises students and new graduates to be prepared for the global business marketplace. "The world has gotten a lot flatter, and successful business collaboration involves peers from all over the world. Students must develop an understanding of cultural differences and learn how to flourish in a diverse environment."

When he is not at Dow, Horvath is a competitive sailor on the Great Lakes and the past commodore of the Bay City Yacht Club. He continues to enjoy Michigan's Upper Peninsula, spending time at his vacation home on Lake Michigan. ■



Merging Business and Engineering





“More than anything else, the world needs leadership.”

—Andy Storm '99

When Andy Storm '99 was a student at Michigan Tech, he never imagined using his course work in an international defense situation. But recently, he was doing just that in a meeting with a Mexican general at the Ministry of Defense in Mexico City. “We discussed the vehicles my company makes for the Mexican military, which are designed to keep troops safe in the most dangerous drug cartel hot spots,” he said. “The goal was to find ways to help the government suppress drug-related violence.”

Storm, who has dual degrees in business administration and mechanical engineering technology, used expertise from both to meet the military's needs. “On the business side, I had to consider currency fluctuations and material flow to Mexico,” he said. “From a supply-chain perspective, we had to figure out how to provide service to the vehicles in the field without endangering our employees.

“In terms of engineering, I had to collaborate with my colleagues in the service and aftermarket departments to find ways to tweak the design process, transition manufacturing capacity closer to the customer, and make strategic changes to serve the soldiers. It was a delicate balance between providing high-level service to the client and managing the real-world needs of the corporation.”

As the director of engineering in the defense division of Oshkosh Corporation, Storm draws heavily on his business and engineering background on a daily basis. Michigan Tech, he said, was the perfect place to nurture a robust education in both fields. “Michigan Tech presents the opportunity to learn both engineering and business, which was a huge benefit when I went out into the working world,” he said.

For Storm, there was never a question that his life's work would be a mix of technology and business. “My passion has always been operations,” he said. “There's something really special about seeing raw material flow through the manufacturing process and end as a consumer product. Manufacturing is great for those who are young, ambitious, and have a desire to work with people.”

During his undergraduate years, Storm spent two summers as an intern in General Motors' metal-fabricating division. There, he was exposed to the service and manufacturing sectors of operations and developed a deeper appreciation for the process. “Most importantly, I learned how to operate with a sense of urgency,” he said. “In the automotive world, you have to react and solve problems quickly or you don't survive.”

After leaving Michigan Tech, Storm spent several years working in manufacturing operations at GM before going on to further his dual-focus education. As a Leaders of Manufacturing Fellow at the Massachusetts Institute of Technology (MIT), he earned an MBA in Economics, Finance, and Strategy and an MS in Engineering Systems. Armed with a world-class education from Michigan Tech and MIT, Storm served as the manager for global procurement and supply-chain management at American Axle & Manufacturing and the operations manager at Pratt & Whitney before moving into his current position.

“I use the skills I learned at Michigan Tech every day of my life,” he said. “The professors taught me how to handle a range of business situations, from monitoring defense spending around the world to finding ways to provide the same technical requirements at a lower price.”

Storm advises current students to take advantage of the opportunities at the University, from securing an early internship or co-op position to finding leadership roles around campus.

“More than anything else, the world needs leadership. The business world needs people who can think quickly on their feet, lead a team of people, and get results,” he said.

For more on how the School of Business and Economics is helping students integrate business and engineering education, check out page 16. ■

Curriculum Changes Improve Students' Career Prospects

With two additions to the curriculum in the School of Business and Economics, students will have more opportunities to succeed in the global marketplace.

Engineering Management Bachelor of Science Degree

To better serve students who wish to combine interests in business and engineering, the School of Business and Economics has designed a new degree program: the BS in Engineering Management. The degree, which was approved in February by Michigan Tech's Board of Control, started this fall.

"I've taught business and engineering students for many years, and a common trend in graduate feedback is for an understanding of the technical vocabulary and decision-making process of these two disciplines," said Professor Paul Nelson, who will teach managerial courses in the new degree program. "This degree goes beyond having students from business and engineering work together. It will provide the necessary foundation for anyone looking to successfully manage in technical fields."

As part of the engineering management degree, students will take courses in engineering, math, and science while completing a comprehensive business curriculum. They will develop a broad and strategic perspective of business and acquire a solid command of the technical fundamentals of engineering. To link the two areas of study, students have the opportunity to complete two capstone courses in business development, focusing on engineering or technology-based companies.

"The engineering management degree provides students with both the management and technical skills needed in a variety of careers such as project management, production management, and technical sales and service," said former Dean Darrell Radson, who participated in the early development of the degree.

"Michigan Tech has long been committed to delivering distinctive and rigorous discovery-based learning experiences grounded in science, technology, engineering, and mathematics (STEM)," said Michigan Tech Provost and Vice President of Academic Affairs Max Seel. "Combine that with hands-on experience in business, and you have just what students will need to prosper in the new economy." ■

New Business Minor Prepares Students for a Globalized Market

As businesses around the world become increasingly interconnected, the global marketplace is shrinking rapidly. Students emerging from Michigan Tech in the coming years are likely to work closely with international colleagues from a variety of cultural backgrounds and traditions. To prepare students to be strong cross-cultural communicators and international business professionals, the School of Business and Economics has developed a minor in global business.

"Undergraduate students can benefit greatly from an international experience," said Dean Gene Klippel. "Students will learn to navigate a new culture, communicate in an international environment, and gracefully handle different cultural and business norms. Graduates who leave Michigan Tech with this experience will have an edge over other job applicants, particularly with companies who do business around the world."

Students with a global business minor will take courses in international management, study a foreign language, and participate in a study or travel abroad experience. The School will offer special global business study abroad programs, and students have the option to participate in other faculty-led programs through other departments on campus. To round out the global business experience, students can take elective courses in global marketing, global finance, intellectual property management, supply chain management, international law, and cyber law.

To increase diversity, the global business minor is open to students in all majors at Michigan Tech. Current business students are going abroad, as evidenced in the stories on page 26 and 27. ■

Bachelor of Science Degrees



ACCOUNTING



ECONOMICS



ENGINEERING
MANAGEMENT



FINANCE



“Combine that with hands-on experience in business, and you have just what students will need to prosper in the new economy.”

—Max Seel

Provost and Vice President for Academic Affairs



MANAGEMENT



MANAGEMENT
INFORMATION
SYSTEMS



MARKETING



OPERATIONS
AND SYSTEMS
MANAGEMENT

Marketing Study Aims to Boost Local Economy

As businesses in the Keweenaw struggle to stay afloat in tough economic times, market leakage becomes a growing problem. Junhong Min, an assistant professor of marketing in the School of Business and Economics, is using advanced market research techniques to identify the sectors that are most susceptible.

Market leakage, which refers to the loss of customers to markets outside of the area, reduces profits for local businesses and damages the overall economic health of the Keweenaw and surrounding areas. Market leakage occurs when customers are not satisfied with the choices or prices they find in the local market and look elsewhere for their shopping needs.

In 2012, for the second year in a row, Min directed his marketing research class in a market leakage study to identify weak spots in the local market. The study addressed thirteen product categories, examining customer behavior in each area. Cory Rokes, a senior management student, welcomed the chance to work on a research project with real-world applications.

“The course gave me a systematic method for conducting marketing research,” he said. “I have entrepreneurship aspirations, and now I know how to identify and satisfy customers’ needs and wants. It really broadened my horizons.”

Rokes didn’t wait until after graduation to use his hard-earned research skills. He implemented marketing-research strategies in several student organizations to recruit members.

With guidance from Min, Rokes and his classmates applied the lessons learned from the original market leakage study to create a more effective result. “After the 2011 study, we determined that our results would be more useful if they focused on a specific industry,” said Min. “So, in 2012, we added a special extension that targeted the air travel industry.”

The airport study focused on the Houghton County Airport (CMX), which plays an important role in local economic growth. The project resulted in several intriguing findings that offered valuable insight for consideration by airport management. CMX is the only option within 100 miles of Michigan Tech. Min and his students found that frequent flyers, people who travel more than three times per year, prefer to fly out of CMX. In addition, 38 percent of the study participants use the airport for their business, proving its importance to the local economy. The study included a regression analysis, which determined the three most important factors for frequent flyers: driving distance, consistent flight schedule, and flight-delay handling. It also identified specific areas for improvement, like airport food service, the airport website, and Internet access in the terminal.

“This is the power of marketing research. It gives us actionable information—specific numbers—and customer insights—detailed feedback. Now, we hope that the results from the marketing research further promotes increased usage at the airport and customer satisfaction,” said Min.


With the success of the airport leakage study, Min plans to continue targeting different industries. The 2013 study will focus on online purchasing behavior, which is one of the biggest market leakage problems in the Keweenaw.

“The results will help local businesses learn how they can adjust their practice to compete with online retailers,” said Min.

In summer 2012, the Academic Office Building, home to the School of Business and Economics completed a renovation to make faculty-led projects such as Min’s more accessible. Students now have a designated area to complete call-center research. The new facility includes a conference table to discuss findings and workstations to collect survey data and compile reports.

All the efforts will pay off, they hope, as this important marketing research seeks to help keep Keweenaw businesses in business. ■





Dean Johnson Named 2012 Professor of the Year

Dean Johnson, the James and Delores Trethewey Associate Professor, was named 2012 Professor of the Year by the Presidents Council, State Universities of Michigan. Johnson, a member of the School of Business and Economics faculty since 1996, is the founding director of the groundbreaking Applied Portfolio Management Program (APMP) at Michigan Tech.

Provost and Vice President for Academic Affairs Max Seel, who nominated Johnson for the award, commended the professor for his devotion to students. "He has a genuine concern and compassion for each individual student," Seel said.

Johnson is known among students and faculty as a charismatic teacher, a dedicated student advocate, and a firm believer in the power of personal relationships. "I try to find out where they're from and what career goals they have," he said. "Once you develop a personal relationship, it becomes much easier to push, push, push them to learn and study because they realize I truly have their best interests at heart."

According to Seel, Johnson goes to extremes to secure new and exciting opportunities

for his students. APMP, Seel said, is a prime example. "APMP was the result of a single, new, untenured professor who took the risk to expend enormous amounts of time to secure the required resources."

To ensure that Michigan Tech students have access to world-class opportunities in investment and high finance, Johnson has worked tirelessly to create and expand the APMP, which allows students to manage a stock portfolio of more than \$1.3 million. Johnson spearheaded the project, handling everything from creating a professional advisory board to securing the funds for students to manage. As a result, students have unprecedented early access to the investment world, augmented by guest speakers and internship opportunities. And, thanks to the efforts of Johnson and alumnus Joe Dancy '76 of LSGI, students work out of the cutting-edge, purpose-built LSGI Trading Room.

"It is great to be recognized with this honor, especially since it is presented for teaching and guiding students," Johnson said. "I know that our Applied Portfolio Management Program also had a lot to do with it, and

many people have helped me with APMP over the years."

In his sixteen years of teaching, Johnson has been recognized multiple times for his dedication, passion, and powerful presence in the classroom. He received the Michigan Tech Distinguished Teaching Award in 2000 and 2009, making him only the third professor in Michigan Tech's history to receive the award twice. He has been nominated for the Michigan Tech Innovative Teaching Award and the US Professor of the Year Award and is a member of the Michigan Tech Teaching Academy, which recognizes teaching excellence. Johnson shares the Michigan Professor of the Year honor with professors from Michigan State, Saginaw Valley State, and Wayne State. ■

Online MBA Students Finish with Trip to India's Silicon Valley



“It was empowering to have the ear of these global executives who were truly interested in hearing what we had to say.”

—Holly Lehto

Nine students from the Tech MBA Online program returned from India with a new appreciation for how the rest of the world does business.

“We chose Bangalore because it’s the Silicon Valley of India,” said Jodie Filpus, who directs recruitment and admissions for the MBA program.

The online MBA program includes three residencies, when the students leave their far-flung homes to meet in person with each other and their professors. Two residencies are held on the Michigan Tech campus, and the third involves a week of international travel.

It would be hard to imagine a city more different from Houghton than Bangalore. “It’s a very interesting place,” Filpus said. “It’s beautiful in many respects, with its temples and palaces, and it’s so rich in history.” However, the population in the city of over 8 million has grown by more than 65 percent in the last ten years, and its infrastructure hasn’t kept up, “so it gave me an appreciation for what we have here.”

Led by Assistant Professor Latha Poonamallee and accompanied by Filpus, the MBA students visited several different organizations, including a pharmaceutical manufacturer and a nonprofit that provides solar-energy-system financing for poor villages.

During the spring semester, the students prepared for their trip by researching each of the companies they would visit in India. Specifically, they identified a “disruptive innovation” to discuss with company officials and offer potential solutions. Disruptive innovations are marketplace game-changers, such as iPods and smartphones, that upend earlier technologies.

Assistant Professor Andre Laplume taught them how. First they studied the companies’ products and strategies. “Then they proposed a new business for them to get into,” he said. “They described a new product, developed a rationale explaining why it should be adopted, and wrote an essay about it for their final exam.

“By the time they got to Bangalore and met with the company executives, they had something to bring to the table,” Laplume said. Not only was it a good opportunity to see how businesses function overseas, it also gave the students—most of them middle managers—a chance to display their skills before top executives.



Mike Vigrass and Holly Lehto.

Before traveling to Bangalore, student Holly Lehto had already put Tech’s MBA curriculum to good use. “Throughout the program, I’ve been reaping the benefits,” she said. “A lot of concepts in the case studies are applicable to my day-to-day work as a project manager for Allonhill LLC in Denver.”

Her final exercise was to study the Bangalore-based market research firm Mu Sigma. “We talked about the possibility of going public, and we also discussed capturing data from electrical transmission lines and selling it to clients,” said Lehto, whose firm provides due diligence and risk management services to

the mortgage industry. “It was empowering to have the ear of these global executives who were truly interested in hearing what we had to say.”

And there were revelations, said MBA student Mike Vigrass, manager of a natural gas compressor station with DTE Energy-Michcon in Detroit. “I have traveled internationally, but not to India, and I was quite surprised at how much business was conducted in English,” he said. “At one of the site visits, we talked about the fact that India’s wages are going up, so they are losing a competitive edge, and their answer was compelling. They said they think in English, which gives them an advantage over other emerging markets, where they have to translate the conversation.”

Another eye-opener was the visit with the nonprofit SELCO, which provides solar technology to the poor. “Among US corporations, it’s all about market share, getting bigger. For SELCO, it’s about meeting their customers’ expectations,” Vigrass said.

Resource-stretched Bangalore has had trouble grappling with its own growth, he noted. “The population has exploded, and it’s hard for them to keep up their infrastructure.”

That culture shock did not detract from the trip, however. If anything, it made it even more worthwhile. “It was a very valuable experience, just to see how people in other parts of the world work and how they think,” Vigrass said.

Lehto agreed. “Both from a business and a cultural perspective, it was such an amazing trip,” she said.

Experience the trip to India by watching this video:
<http://goo.gl/yr8Or> ■



Red Ties that Bind



Josh Filzen



Anne Warrington

“The red ties are a symbol of progress and possibility.”

— Dean R. Eugene Klippel

In 2011, the School of Business and Economics announced a plan to resurrect the red tie tradition, which was established by legendary professor Sam Tidwell to celebrate graduates who passed the CPA exam. (See the sidebar for more information.) The move is part of the school's ongoing efforts to strengthen and expand the connections between alumni, students, and professors.

“When we maintain communication and create a stronger alumni-student network, everyone benefits,” said Dean Klippel. “The red ties are a symbol of progress and possibility, for the current students, the alumni, and the School as a whole.”

Shortly after the initial announcement about the red tie tradition, a letter arrived in the office of the dean, complete with a red tie—the first contribution to the Tidwell's Ties program in more than a decade. The letter, which was from Will Thiele '10, read:

“Keeping with the red tie tradition set into motion by Professor Sam Tidwell, I present you with this red tie. On Saturday, October 29, 2011, I passed the final section of the CPA exam. I received this passing score on Monday, November 21, 2011. The intent of this letter is to thank you and the rest of the School of Business for everything you've done to help prepare me for the CPA exam.”

Thiele, who first heard about the legend of the red ties as an

undergraduate student, remembered the tradition when he passed the CPA exam and felt moved to contribute. Thiele is currently a staff auditor at Postlethwaite & Netterville. “The moment I heard about the red tie tradition from my accounting professors at Tech, I knew that was something I wanted to be a part of,” he said.

In the months since Thiele reinvigorated Tidwell's tradition, red ties have been arriving regularly from young alumni who are eager to become part of the School of Business and Economics legacy. Each of the alumni welcomes the chance to maintain their ties—pun intended—to Michigan Tech.

Molly Bush '07, an accounting graduate, sent in a tie after passing the CPA exam in August 2011. As a senior audit accountant at BDO USA, LLP in Detroit, she handles both public and private clients, performing quarterly reviews and year-end audits. She works closely with partners in the company's Chicago and Boston offices and is active in BDO's recruiting process. Bush, who worked as an audit associate and a tax accountant before coming to BDO, plans to become a manager before she turns thirty.

Bush believes in the symbolic importance of the red ties. “Taking the CPA exam and passing it is a huge challenge,” she said. “With the tradition, it allows those who have achieved this milestone to display



Liang Song

Joel Touriniemi

Sheila Milligan

their success. The ties give hope to students, letting them know that they can achieve the same thing.”

Ryan Lusardi '10, of Makela, Toutant, Hill and Nardi PC, in Marquette, agrees. “As a student, I always found the ties motivating. They served as a reminder that despite the daily grind of being a college student, there is a light at the end of the tunnel. The CPA exam can seem like a daunting task, but the red ties served as a reminder that Michigan Tech has a track record of success.”

Brett Girard, who graduated in 2009 and is currently a senior auditor at Makela, Toutant, Hill & Nardi PC, adds his accolades to the faculty. “The accounting professors at Michigan Tech do an outstanding job preparing students for the CPA exam. The exam covers more than just accounting, though, and has an entire section devoted solely to business and economics. All the faculty aid in exam preparation,” he said.

As the red ties continue to arrive in the School, the accounting faculty members welcome the opportunity to create and maintain connections with their former students. In September 2012, Joel Tuoriniemi, Liang Song, Anne Warrington, Sheila Milligan, and Josh Filzen wore red ties to class. Each professor spoke about the alumnus who had sent in their tie, recounting their experiences at Michigan Tech and describing their career paths.

“The red tie experience creates real-world connections between students and alumni,” said Tuoriniemi. “My students were excited to hear personal stories about the alumni—it gives them a chance to see where an accounting education can take them. I am proud to help continue Sam Tidwell’s tradition.” ■

Invitation to Accounting Alumni

Are you a Michigan Tech alumnus? Have you passed the CPA exam? Your story can inspire and inform current students.

We invite all Michigan Tech alumni to become a part of the red tie tradition established by Sam Tidwell. Choose a red tie and write us a letter that details what you’ve been up to since graduation. When we receive the tie, one of our current accounting professors will wear the tie for a day and tell your story; your experiences can make a difference. ■

Please send ties to:

Dean R. Eugene Klippel
School of Business and Economics
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931-1295

Faculty Globe Trekkers



2011-2012 Faculty Travel/Presentations

Mari Buche

Green Bay, Wisconsin

Midwest Association for Information Systems
"Inter-sourcing IT Solutions with University Partners"

Gary Campbell

Beidaihe, China

Executive MBA program for China University of Mining and Technology

Beijing, China

Lectures on Goal-Setting and Strategic Planning by Private International Mining Companies

Josh Filzen

Vancouver, Washington

American Accounting Association Western Region Meeting
"The Information Content of Risk Factor Disclosures in Quarterly Reports"

Gregory A. Graman

Chicago, Illinois

POMS 2012 23rd Annual Conference and Sustainable Operations College Mini-Conference
"Sustainable cellulosic-ethanol closed-loop supply chain"

Soonkwan Hong

Tampa, Florida

American Marketing Association Conference
"A Postcolonial Critique of the globalization of popular culture: The case of K-pop"

San Francisco, California

American Marketing Association Conference
"Liberating Stigmatized Consumption Practices"

Chicago

Consumer Culture Theory Conference
"Skating Dialectics and Flipping Genealogy"

Dana M. Johnson

Chicago, Illinois

2012 23rd Annual Production and Operations Management Society Conference
"Woody forest residue supply chain for biofuels"

Dana M. Johnson and Gregory A. Graman

Boston, Massachusetts

2011 Decision Sciences Institute Conference

"Modeling the Operations Strategy for Outsourcing of Non-Core Operations in Institutions of Higher Education."

Dean Johnson

Chicago, Illinois

MBAA Conference
"Overreaction to the CALPERS Focus List"

Becky Lafrancois

Evanston, Illinois

Midwestern Economics Association Annual Meeting

Andre Laplume

San Antonio, Texas

AOM Conference
"Exploration and exploitation approaches for different stages of firm growth through diversification"

Thomas Merz

Copenhagen, Denmark

The Copenhagen University College of Engineering
Taught Economics during summer session

New Orleans, Louisiana

American Political Science Association
"The Order of Voting and Cooperation: Collective-Action Games"

In 2012, faculty members in the School of Business and Economics presented their research and shared their expertise across the nation and around the world.

The dot colors correspond with the presentation locations.

Junhong Min

Memphis, Tennessee

SMA Conference

"Promoting the Provider Performance in B2B Relationships"

Saurav Pathak, Emanuel Xavier de Oliveira, and Andre Laplume

Valencia, Spain

2nd Global Innovation and Knowledge Academy

"Technology Entrepreneurship in Emerging Economies: The Influence of Intellectual Property Rights, Foreign Direct Investment and Barriers to Technological Adoption"

San Francisco, California

87th Annual Western Economic Alliance International Conference

"Technology Entrepreneurship in Emerging Economies: The Influence of Intellectual Property Rights, Foreign Direct Investment and Barriers to Technological Adoption"

Saurav Pathak

Dallas, Texas

Babson College Entrepreneurship Research Conference

"Consumer Receptivity to innovations: Individual, peer-group and country-level effects"

Saurav Pathak, Sonia Goltz, and Mari Buche

Dallas, Texas

Babson College Entrepreneurship Research Conference

"Gendered institutions and influences on women's entrepreneurship"

Latha Poonamallee

San Antonio, Texas

Academy of Management Conference

"Impact of Collective Socio-Ecological Beliefs and Values on Societal Compassion in Disaster Management"

Glasgow, Scotland

MOPAN Conference

"Leader, Participant, Beneficiary, or Partner? Examination of Leadership Dynamics in a Collaborative Inter-Organizational Initiative"

Howard Qi

Chicago, Illinois

Academy of Finance Annual Conference

"Is APV Better than WACC for Non-Stationary Debt Ratio?"

Maria Schutte

Krakow, Poland

19th Meeting of the Multinational Finance Society

"Stock Return Comovement in the New Millennium"

Liang Song

Chicago, Illinois

American Accounting Association

"Do Islamic Banks Employ Less Earnings Management?"

Bronx, New York

Financial Market Workshop at Fordham University

"Bank Stock Price Synchronicity: Global Evidence"

Manish K. Srivastava

Miami, Florida

Strategic Management Society Conference

"What They Like About You? Alignment of Firm Knowledge Structure and its Growth Strategy"

San Antonio, Texas

Academy of Management Conference

"Lost in Your World? Role of Behavioral

Orientation on the Impact of Alliance

Portfolio on Innovation"

Anne Warrington

Austin, Texas, and Denver, Colorado

Accounting Conference

Washington, DC

American Accounting Association's

Annual Meeting, "Effective Learning Strategies"



Worldly Experience: Studying Across Cultures

As study abroad grows in popularity, we thought it would be a good time to check in with a couple of students to see how their experiences have impacted them.



**Kathryn Danielson, Fifth year
Operations and Systems Management
Studied in Spain**



Why did you study abroad?

I wanted to go abroad mainly because I haven't had an internship experience. I'm entering my senior year, and I needed something that would set my résumé apart from other individuals applying for jobs. I love to travel, and in high school I went to Italy. As a business student, having experiences outside of the US is important, and understanding the global market is critical since it affects everything around us.

What did you experience?

I took a class in international management and completed a weeklong field study in Madrid. My class was much smaller than others I have had at Michigan Tech and was very hands-on. Our professor took us to businesses in Spain, and we saw how they managed their operations, what daily functions they fulfilled, etc. We also went to an entrepreneurship convention that provided me with an insight on how people would start a business in Spain.

What was the best part of your trip?

Two things really made my trip amazing: meeting different people and experiencing a culture and country that I'm not normally exposed to. Being a UP native, I haven't had much exposure to large cities. It was eye-opening to experience various cities across Spain and view the culture and its people from a different perspective.

Would you study abroad again?

I would definitely find another international experience, if I wasn't entering my senior year. I loved the area, made a lot of friends, and I look forward to returning someday for a visit!

“You learn of new ideas, new ways of doing things, and meet tons of people you’d otherwise never have known.”

— Eli Karttunen



Eli Karttunen, Fourth year
Economics Major
Studied in Germany



Why did you study abroad?

Studying abroad allowed me to see how economics and finance courses are taught from a European perspective. Also, to take classes with foreign professors and students gives you a large networking advantage, as well as the chance to work in multicultural teams, all of which are invaluable experiences for graduate school, as well as later in life. All too often, it seems that economics has the potential of being taught from a politically skewed or nationalistic point of view, so understanding how Germans view different economic theories or events like the European Sovereign Debt Crisis was appealing.

What did you experience?

The first part of the program was a course on German language, culture, and business, which is designed to not only give the US students a working vocabulary and knowledge of German language and grammar, but also to provide insight to German culture and political institutions. Students present on a variety of topics and have to write a paper by the end of the program. I presented on “The German Banking Sector” and “The German Social Security System.” So far, the difference has been that homework and projects aren’t that big in German education. It’s all about the exam grade. In fact, for university classes, you don’t actually register for them here, you just

attend the lectures you want, memorize the note packet the professor sends out, and you register for exams and take them. Nothing else is graded.

What was the best part of your trip?

The best part of the trip is simply being in Europe and being able to travel around and experience the culture. So far, we’ve been to Hannover, Hamburg, Amsterdam, Berlin, and Luneburg. With travel plans to Rotenburg, Munich, Heidelberg, and Helsinki the capital of the land of my ancestry in Finland.

Would you study abroad again? Would you go somewhere new or to the same location?

Study abroad is an invaluable experience in many ways: academically, professionally, personally, and socially. You learn of new ideas, new ways of doing things, and meet tons of people you’d otherwise never have known. I definitely would do it again, given the opportunity. Germany is a great place, and I’m sure I’ll return someday, perhaps for work—I’d definitely need to learn more German first—but for sure for vacation some day. But in order to see other places around the globe, I’d probably want to check out somewhere new!



Announcing the BS in **Engineering Management**

We prepare students to be leaders, not just employees. This degree bridges the technical aspects of an engineering discipline with a solid foundation in business operations. The curriculum is guided by both engineering and business faculty who have years of experience working with Michigan Tech students. (See page 16.)