Empowering Growth: CEE Broadens Expertise Through Strategic Hires

The MSU Department of Civil and Environmental Engineering is currently experiencing dynamic growth. In a significant move, six new faculty members have been hired to broaden CEE’s research expertise.

Annick Anctil joined the department as an assistant professor in August 2014. Her research focuses on designs for the environment to ensure that all stages of the life cycle of a product or system are environmentally, economically, and socially sustainable. Evaluating the environmental impact of commercialized and future solar photovoltaics technologies constitutes the core of her research. Because solar energy is perceived as a green technology, any harmful environmental issues arising from its manufacture, use, or disposal will be detrimental to solar energy’s long-term success. She also has research projects related to nanomaterials production and wastewater treatment.

She earned a bachelor’s degree in materials engineering from École Polytechnique de Montréal (2005), a master’s degree in materials science and engineering (2007), and a PhD in sustainability (2010) from the Rochester Institute of Technology.

Roozbeh Dargazany joined the department as an assistant professor in August 2014. His research interests are in multi-material joining, such as robust structural joints consisting of composites and dissimilar materials with improved mechanical properties, enhanced damage resistance, reversible bonding, selective activation and repair, along with sensing and healing capabilities. He is also interested in the computational design of materials and structures; the application of non-destructive tools for health monitoring and repair of structural joints (including embedded fiber-optic sensors, guided wave sensing, digital image correlation, IR thermography, thermoelastic stress analysis, and optical techniques).

Dargazany is working on the development of multi-function hybrid materials for aerospace, marine, defense, automotive, and other applications. His recent work includes tailored helmets for enhanced energy absorption and concussion reduction. His interests also include the implementation of novel nanocomposite materials and the development of design tools using innovative measurement and experimental techniques.

He earned his PhD in civil engineering from RWTH Aachen University.

Mahmoodul Haq joined the department as an assistant professor in August 2014. His research interests are in multi-material joining, such as robust structural joints consisting of composites and dissimilar materials with improved mechanical properties, enhanced damage resistance, reversible bonding, selective activation and repair, along with sensing and healing capabilities. He is also interested in the computational design of materials and structures; the application of non-destructive tools for health monitoring and repair of structural joints (including embedded fiber-optic sensors, guided wave sensing, digital image correlation, IR thermography, thermoelastic stress analysis, and optical techniques).

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He earned his PhD in civil engineering from RWTH Aachen University.

Weiyi Lu joined the department as an assistant professor in August 2014. His research is focused on advanced nanomaterials and composites, new mechanisms of protection, high-strain-rate behavior of materials, and multifunctional engineering materials/structures. Before joining MSU, he was a post-doctoral scholar in the Department of Structural Engineering at the University of California, San Diego, where he received his PhD degree.

Yadu Pokhrel joined the department as an assistant professor in August 2014. His research focuses on designs for the environment to ensure that all stages of the life cycle of a product or system are environmentally, economically, and socially sustainable. Evaluating the environmental impact of commercialized and future solar photovoltaics technologies constitutes the core of his research. Because solar energy is perceived as a green technology, any harmful environmental issues arising from its manufacture, use, or disposal will be detrimental to solar energy’s long-term success. He also has research projects related to nanomaterials production and wastewater treatment.

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Anthony Ingle joined the department as an instructor in January 2014. His specialty is traffic and transportation engineering including geometric design, traffic flow and control, and traffic safety; traffic simulation modeling and applications for planning and operational decision-making. His research interests include the emerging field of intelligent transportation systems (ITS).

Prior to joining MSU, he worked as a project engineer for RS Engineering in Lansing for more than six years, developing roadway design projects, traffic engineering services, and safety studies for the state of Michigan. He earned a bachelor’s degree in civil engineering from MSU in 2004 and a master’s degree in civil engineering from Virginia Tech in 2005.

Weiyi Lu joined the department as an assistant professor in August 2014. His research is focused on advanced nanomaterials and composites, new mechanisms of protection, high-strain-rate behavior of materials, and multifunctional engineering materials/structures. Before joining MSU, he was a post-doctoral scholar in the Department of Structural Engineering at the University of California, San Diego, where he received his PhD degree.
Greetings from East Lansing. I welcome you to read this newsletter and get caught up on the department and student news.

The CEE department hired five faculty members and one clinical faculty member in the calendar year 2014 and has launched a search for two faculty members for the Transportation Engineering Program. Please join me in welcoming the new hires and wishing them the best in their professional careers at MSU.

This has been a banner year for our alumni. They have received distinguished alumni awards, been elevated to positions of leadership at the state, national, and international levels, and received recognition for their professional contributions.

Volodymyr Tarabara, associate professor of civil and environmental engineering, has been named a Fulbright Scholar. He will use the funding to conduct research on water quality control in the Republic of Georgia. His research will focus on the use of bacterial viruses, called bacteriophages, as human virus surrogates in water quality control applications.

For her ongoing distinguished service, professor Susan Masten was inducted into the West Virginia University Academy of Civil Engineers in May 2014 and continues to get recognition for her stewardship of our environmental resources. Phani Mantha was promoted to the rank of professor, and Muhammed Kutay was promoted with tenure to the rank of associate professor.

MSU’s chapter of Spartans Without Borders (SWB-MSU) made trips to Mabibo-Makumbi in the city of Dar es Salaam, Tanzania, in 2013 and 2014. They supervised the construction of a well water distribution system at the Mabibo Lutheran External Church and worked toward the gift of clean water.

The Spartan Spanners qualified for national competition after winning top honors at the regional Steel Bridge competition in March 2014 at the University of Detroit Mercy, where they received four first-place honors. The concrete canoe team members were pleased to finish second place overall in March 2014 at the regionals at Erie Metro Park. Our talented students also brought home a second place in the nation from the Air & Waste Management Association Environmental Challenge International (ECI) in Long Beach in June 2014.

These are exciting times for the CEE department at Michigan State University. I welcome our alumni and friends to stop by the department when you are on campus. I thank you for your continuing support.

New Developments in CEE

Like MSU’s current international momentum, CEE’s strategic activities are creating additional impact and innovation opportunities, said Department Chair Neeraj Buch. Points of pride include:

- the MSU Transportation Center on Highway Pavement Preservation (designated as a U.S. Department of Transportation Tier 1 University Transportation Center in 2013 with expected grants of more than $5 million through the end of the decade), which is successfully expanding its national impact through collaboration and outreach;
- sensor research that is making strides in detecting structural failure in streets, bridges, knees, and shoulders;
- a new corporate partnership program that received its first $5,000 from Fishbeck, Thompson, Carr & Huber, Inc., to enhance student activities; and
- broadening CEE’s research expertise with six new faculty hires who are focused on micro-mechanics of soft and bio-inspired materials, intelligent transportation systems, hydrology, nanomaterials and composites, and sustainability.
- Professor Gilbert Baladi and Ronald Rosenberg, associate dean emeritus, teamed up to improve student learning in CE 221—Statics through online enhancements. More on their efforts will be featured in Currents, the alumni magazine, this summer.

“We’ll continue to expand our efforts across our department as our College of Engineering and university do likewise,” Buch said.

MSU will host PROTECT2015—the Fifth International Workshop on Performance, Protection & Strengthening of Structures Under Extreme Loading—on June 29–30; details at www.ceg.msu.edu/protect2015. Pictured here is the famous 1916 fire that destroyed MSU’s original Engineering Building.

Cliff Farr (’90) designated his $10,000 American Association of State Highway & Transportation Officials Francis B. Francois Award to the department to support graduate fellowships. A 40-year employee of the Michigan Department of Transportation, Farr helped MDOT move to paperless construction projects, which is saving about $20 million a year.
Pavement Preservation Center Earns National Designation

When the MSU College of Engineering became home to a U.S. Department of Transportation Tier 1 University Transportation Center in 2013, it added prestige to the college’s ongoing work in preserving roadways around the country. MSU’s Transportation Center for Highway Pavement Preservation is leading a national consortium whose mission is to develop new strategies for extending pavement life. It has already received two cycles in funding, each $1.4 million. Similar funding levels are expected through 2017.

Karim Chatti, professor of civil and environmental engineering, leads the project. The center’s work is focused on three areas:

- **MATERIALS**: Improved materials to extend the life of highway systems.
- **MONITORING**: Innovative sensing technologies, including wireless sensor networks and nondestructive evaluation, for identifying the onset of distress and damage.
- **PERFORMANCE & MANAGEMENT**: Improved data management tools for scheduling optimal highway pavement preservation actions and strategies for better highway asset management.

“There are significant gaps in the understanding of pavement preservation,” Chatti said. “It will require a comprehensive and broadly supported program of research, development, and technology transfer to fill those gaps.”

MSU is the lead institution, collaborating with the University of Illinois, Urbana-Champaign; the University of Texas, Austin; North Carolina A&T State University; and the University of Hawaii.

**UTC Student of the Year Award**

The first University Transportation Center (UTC) Student of the Year Award was presented in December to Ronell Eisma, a CEE graduate student specializing in pavement rehabilitation and geotechnical engineering. He is originally from the Philippines. UTC’s outreach activities introduce students to civil engineering at events like the 2014 Metro Detroit Youth Day, where Eisma and Michael Prohaska helped hundreds of children, including Amiyah Brandon, 9, build a road in a box. “It has been a rewarding experience working with our UTC to be on the forefront of pavement research,” Eisma said. “In my volunteering efforts, I have enjoyed spreading interest and knowledge of pavements and pavement preservation with the members of our surrounding communities. I want to thank Dr. Chatti, Dr. Haider, and Dr. Zaabar; I attribute much of my success to their guidance. I am very grateful for this award.”

Amiyah Brandon (left, front) created her own pavement with the help of MSU’s Michael Prohaska (right, back) and Ronell Eisma (right, front) during Metro Detroit Youth Day.

One of MSU’s newest academic department is in the College of Engineering. The Department of Biomedical Engineering (BME) was approved by the Board of Trustees on Oct. 24, opening the door for collaborative health care research. Read more about this new department and its first $500,000 fellowship from Jack and Dottie Withrow at http://bit.ly/1vk6LNC.
Tarabara Named Fulbright Scholar

Volodymyr Tarabara, associate professor of civil and environmental engineering, has been named a Fulbright Scholar. Tarabara will use the funding to conduct research on water quality control in the Republic of Georgia. His research will focus on the use of bacterial viruses, called bacteriophages, as human virus surrogates in water quality control applications.

He will spend five months spread over 2014–2016 in Tbilisi—the capital and largest city in the Republic of Georgia, which is located on the southeastern edge of Europe. The host institution is the Agricultural University of Georgia. The project is in cooperation with a team from the Ilia State University of Microbiology and Virology.

“Georgian researchers are considered to be among the best in the world in the science and application of bacteriophages,” he said. “At the same time, the country is in need of modern engineering solutions to ensure microbiological safety of its waters. I hope that my project will lay a foundation for a laboratory that would serve as a regional hub for water treatment research.”

Tarabara’s work can be broadly defined as water-quality engineering. His areas of specialization include membrane separations processes and materials science of synthetic membranes.

The highly coveted Fulbright grants are issued by the U.S. Department of State, Bureau of Educational and Cultural Affairs, to foster international academic exchange.

Dargazany Selected as Fellow of MSU’s Academy for Global Engagement

Roozbeh Dargazany, assistant professor of civil and environmental engineering, was one of five faculty members in the College of Engineering selected as a fellow of MSU’s 2015 Academy for Global Engagement, which began in January. A total of 10 early- to mid-career tenured-track faculty members were selected in the academy’s second cohort of participants.

The academy’s goal is to support faculty members in their global research activities and help them view their scholarship through a global lens. Throughout the year, the fellows will participate in monthly seminars that include building networks with funding agencies, refining their research agenda and navigating MSU’s grant system. The fellows also will have an opportunity to learn from seasoned research faculty at MSU through a mentoring system.

Nizar Lajnef, CEE assistant professor, was a 2014 Academy for Global Engagement fellow.

More Honors for Susan Masten

Professor Susan Masten’s lifelong concern for environmental issues and her dedication to provide students with exceptional opportunities continues to be recognized locally and around the country.

In May 2014, she was inducted into the West Virginia University Academy of Civil Engineers. The academy was founded in April 2005 to recognize graduates who have had distinguished professional careers or whose outstanding service makes them worthy of recognition.

In April 2015, she was honored closer to home when she received the Environmental Stewardship Award by the Meridian Township Environmental Commission. Meridian Township is located near East Lansing. The award is in gratitude of her ongoing work, and that of her students, on redeveloping sites in the township, including Haslett Village Square.

Academy officials made special note of her “helpful input regarding environmental issues and concerns.”

Three Withrow Awards Presented in 2014 and 2015

Three members of the department were honored with Withrow Awards during ceremonies in 2014 and 2015. The Withrow Awards are among the most respected in the college, recognizing faculty members for excellence in teaching, scholarship, and service.

Rigoberto Burgueño, associate professor and associate chair of the department, was presented a Withrow Teaching Excellence Award in 2015. A three-time recipient, he is a dedicated and passionate teacher who cares about student learning and strives hard to relate real-life structural engineering to classroom instruction. As one student notes: “Dr. Burgueño challenges the students to go above and beyond what is taught in class.” Another student notes in the nomination form that Dr. Burgueño “demands not adequacy—but excellence—from his students.”

Neeraj Buch, CEE chair and professor, and Thomas F. Wolff, associate dean for undergraduate studies and associate professor, received awards during the 2014 Engineering Awards luncheon. Buch received a Withrow Teaching Excellence Award. A four-time recipient of this award, he is a passionate, organized, skillful, and effective teacher who is known for employing active learning techniques in the classroom. He is dedicated to ensuring that students learn the material presented in his class. Because of his creativity and promotion of student involvement, he consistently receives student ratings of 3.9 or higher on a 4.0 scale.

Wolff, who has served as the college’s associate dean for undergraduate studies since 1998, received the Withrow Exceptional Service Award. He has been engaged in the engineering field for more than 47 years, beginning in 1967 as a student engineering aide for the U.S. Army Corps of Engineers. He joined the MSU College of Engineering faculty in 1986.

He has been engaged as an expert consultant in more than 45 projects with the U.S. Army Corps of Engineers—including his service on three different panels related to studies of New Orleans levees damaged in Hurricane Katrina. For his work on the Interagency Project Evaluation Team (IPET) after the hurricane, he was awarded a Department of the Army civilian medal, the Commander’s Award for Public Service.
2014 CEE Distinguished Alumni Award
Kin Keung Lai (MA ’75, statistics and probability; PhD ’77, operational research and transportation engineering) received the 2014 Civil and Environmental Engineering Distinguished Alumni Award at the Annual College of Engineering Alumni Awards Banquet in May 2014.

Lai is a chair professor of management science at City University of Hong Kong. He is a certified senior enterprise risk manager and a fellow of the Hong Kong Institute of Directors and the Asia Pacific Association of Industrial Engineering and Management Systems. He provides consulting in supply chain and logistics management, operations analysis and management, business problem solving and marketing analysis, and financial management and engineering.

World Executive Weekly named him among the Ten Most Influential Management Professors in China in 2006. He was named the Chang Jiang Scholar Chair Professor, Ministry of Education, China, in 2009; he was the recipient of the Ioon S. Moon Distinguished International Alumni Award, Michigan State University, in 2009; and was ranked fourth among the top 20 academic authors in the area of business intelligence and analytics worldwide in a special issue of MIS Quarterly in 2012.

Lai established a charity organization—Care for Children Foundation—20 years ago and has served as vice chairman since then; he organizes projects including rehabilitation, education, foster care, and disaster relief in China.

Sage Named “Person of the Year”
Richard “Dick” Sage (as ’68) received the Person of the Year Award from the Construction Management Association during the annual industry recognition dinner in October. He was honored for his significant contributions to the profession.

Sage is director of Sound Transit Construction Management, which plans, builds, and operates regional transit systems and services to improve mobility in the Central Puget Sound in Washington. Earlier this year, the Puget Sound Engineering Council named Sage the Government Engineer of the Year. In 2013, he received the Distinguished Owner Award from the Construction Management Association of America (Pacific Northwest Chapter).

Alumnus Helps Contain Groundwater at Damaged Nuclear Plant
Spartan Engineer Joe Sopko (as ’80, MS ’83, PhD ’90) has been involved in ground freezing projects throughout the world. He is currently engaged as a consultant for an underground frozen wall being constructed at the site of the Fukushima Daiichi nuclear power plant in Japan. That plant was severely damaged by the tsunami from the M9.0 Tohoku earthquake in 2011.

Sopko spoke at the MSU College of Engineering in October on “Ground Freezing for Containment of Radioactive Groundwater in Fukushima, Japan.” The one-mile underground wall will convert water and soil to ice, creating an impermeable ice wall to contain the ongoing contamination by radioactive groundwater.

Sopko is the director of ground freezing operations at Moretrench American Corp. in Rockaway, N.J., one of the world’s largest groundwater control contractors. He travels extensively, recently guest lecturing in Beijing, China, and currently working on a project in Argentina.

Alumni Leading County Road Association
Brad Lamberg (BS ’93, MS ’95) has completed his term as president of the County Road Association of Michigan, an organization representing all of Michigan’s 83 county road agencies that collectively manage more than 75 percent of Michigan roads. He is being replaced by another Spartan Engineer; Burt Thompson (as ’93) assumed the presidency of the association on April 1.

Lamberg, PE, is the managing director of the Barry County Road Commission. Thompson, PE, is the engineer-manager of the Antrim County Road Commission.

The association promotes higher efficiency in the operation of Michigan’s county road systems.

Schumann Leads Ohio Emergency Management Agency
Evan W. Schumann (as ’94, MS ’96) was named executive director of the Ohio Emergency Management Agency (EMA) in January. Among his duties, Schumann will be furthering the implementation of the Ohio Department of Public Safety’s 4/72 Project that provides basic life needs for people impacted by a disaster within four hours of the incident and sustainable for 72 hours. He will also work with the Safer Ohio Teams concept to coordinate emergency response by local and state responders.

Under Schumann’s leadership, OH-TF1 personnel have responded to many disasters such as Hurricanes Katrina and Sandy, the Haiti earthquake, mudslides in Washington, and flooding in Colorado. He is well versed in all aspects of state and national emergency management systems.

The Ohio Emergency Management Agency is the state’s coordinating agency for emergency response throughout the state.

Class Notes
Lt. Col. David J. Anason (as ’91) has retired from the U.S. Air Force after serving honorably for 22 years. Anason was last serving as chief, Energy Program Development Division with Air Force Civil Engineer Center, Tyndall Air Force Base in Florida. He was commissioned into the U.S. Air Force and entered active duty in July 1992 at Falcon Air Force Base in Colorado.

Andrew Bohr (as ’81) has joined the Kalamazoo office of construction management firm Owen-Ames-Kimball Co., where he is a project manager/estimator responsible for estimating, budget preparation, project documentation, and...
value management for projects run out of the Kalamazoo office. He has 33 years of commercial construction management experience throughout southwest Michigan, having worked in capacities ranging from field engineer to estimator to project manager.

Donald Greenwell Jr., PE, (BS ’74) was promoted at Walbridge, Detroit, on Jan. 22, 2014. He is now executive vice president and general manager—commercial group. He continues to head the company’s commercial unit, which is responsible for projects in cultural, education, health care, office building/ HQ facilities, parking, residential, and retail/entertainment sectors. He previously held the position of senior vice president.

Jason Gutting, PE, (BS ’95) of Okemos, Mich., was awarded the 2014 Michigan Department of Transportation Director’s Award—the department’s highest honor for outstanding service. MDOT established the annual award more than 20 years ago to recognize employees who exhibit leadership and exemplary public service. Gutting was honored in the professional, supervisor category.

Sidney Lockhart, PE, (BS ’97) is the chief engineer for the office of the Oakland County Water Resources Commissioner. Lockhart was recently honored by the Michigan Section of the American Society of Civil Engineers as the Franklin D. Meyer Outstanding Civil Engineer of the Year.

Kerri Miller, PE, (BS ’97) has been named the first female leader at Grand Rapids-based Fishbeck, Thompson, Carr and Huber. As principal, she will serve in the highest management and leadership role at the firm that sells civil engineering, architecture, environmental, and construction management services. Her main focus is business development and project management, where she is involved in marketing across many service sectors.

Philip Sanzica, PE, (BS ’72), after more than 30 years of service to the Oakland County Water Resources Commissioners (WRC) Office, was recently appointed Chief Deputy Water Resources Commissioner. He is now responsible for management of WRC operations, projects, and staff.

Douglas A. Scott (BS ‘92) of Morrice, Mich., was promoted by Rowe Professional Services Company in June 2014 from project manager to senior project manager. He joined Rowe in 1995 and was named an associate (shareholder) in 1998. He focuses on project design and development for a variety of municipal and private clients, with an emphasis on water and waste-water projects.

Kevin L. Tolliver (BS ’79) was recently promoted to engineering project manager for the City of Valdosta, Ga. In his role, he is responsible for the bid, award, permitting and construction administration of municipal projects on behalf of the City of Valdosta.

2014 Steel Bridge and Concrete Canoe Teams

Cheers for the Spartan Spanners for placing 19th out of 49 teams at the 2014 National Student Steel Bridge Championship May 23–24, 2014, in Ohio. The Top 20 finish was an improvement from last year’s 22nd-place finish.

The Spartan Spanners qualified for national competition after winning top honors at the regional Steel Bridge competition in March at the University of Detroit Mercy, where they received four first-place honors—for overall performance, economy, efficiency, and stiffness. It was the second year in a row that the steel bridge team won the regional contest and represented MSU at the national competition.

The concrete canoe team members were pleased to finish second place overall in March at the regionals at Erie Metro Park with their concrete vehicle, Cisplatin—named for a cancer drug that was created at MSU several years ago. The second-place finish at regionals was “a personal best” for the team in recent years.

UPDATE: The Spartan Spanners took first place in their region in 2015 and are headed to nationals in May in Kansas City.
Spartans Without Borders Give Gift of Clean Water

Spartan engineers are showing their Spartan Will by helping a town in Tanzania achieve a more reliable, readily accessible, and sufficient water supply for their community.

MSU’s chapter of Spartans Without Borders (SWB-MSU) made trips to Mabibo-Makuburi in the city of Dar es Salaam, Tanzania, in 2013 and 2014 to supervise the construction of a well water distribution system at the Mabibo Lutheran External Church and work toward the gift of clean water.

“It began in August 2013 when three members went on an assessment trip to Mabibo-Makuburi to meet with community members, take water quality samples, obtain measurements where the well would be drilled, and meet with a government well drilling agency,” said James Rice (BS ‘14), who served as co-technical lead. “Using the data collected from the assessment trip, design alternatives for a borehole well water distribution system were prepared to satisfy the needs, priorities, and constraints of the Mabibo-Makuburi community.”

A design alternative was then selected by the community and preparations were made to implement the borehole well system in August 2014.

Six members went back to the community in August 2014 to implement the borehole well system. Travel team members also presented lessons on proper health and sanitation to local children and adults.

Environmental engineering senior Samantha Eanes, who served as the other co-technical lead on the project, said water sampling was conducted during the 2013 trip, during which they also arranged for a hydrogeological survey of the area. “Based on those results, we anticipated the well would have a high salt concentration,” Eanes explained. “When we received the water quality results from the well drilled in 2014, it was discovered that the well did not have a high salt concentration. Therefore, with proper treatment, the well water could be used for drinking and cooking, in addition to sanitation and cleaning applications.

“We’re still in the monitoring period, but that is such good news.”

And, it makes the experience even more rewarding, Eanes noted. “I was overwhelmed at the hospitality and the gratefulness of the community we are trying to help,” Eanes continued. “When we were working here at MSU, we were proud of what we were accomplishing, but seeing their reaction is absolutely priceless.”

Susan Masten, CEE professor and advisor to SWB, said the chapter not only provides students an opportunity to apply engineering knowledge to real-world situations, but also leaves a lasting impact in a community that could use the help.

“We’re proud of our international development work and grateful to see firsthand how engineering can positively impact people’s lives,” Eanes said.

Masten acknowledged the guidance of CEE Emeritus Professor David Wiggert and colleague Kurt Guter for their assistance with the project and financial support. “In addition, we should acknowledge financial support from the College of Engineering, ColorMeRad, University Lutheran Church, and the CEE department, along with several anonymous private donors,” Masten added.

The new well at the Mabibo External Lutheran Church will help alleviate water shortages not only for the church but for the residents for the Mabibo-Makuburi community. The church will sell water to residents regardless of religious affiliation and at an affordable rate.

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Graduate student Zachary Curtis received the Hal and Jean Glassen Memorial Foundation—Theodore (Teddy) Roosevelt Conservation and Environmental Leadership Fellowship for 2014–15. The $2,500 award helps a graduate student achieve leadership roles in natural resource and conservation agencies.

The team of (from left) Steven McConnell, Daniel Damino, Priyank Patel, and Eunsang Lee earned national honors when they received second place at the 2014 Environmental Challenge (EC) in Long Beach last summer. EC is a student team competition that asks students to prepare and present an optimal solution to a complex “true-to-life” environmental problem. It is hosted by the Air & Waste Management Association.
The MSU Board of Trustees approved a $1.5 billion capital campaign intended to build on Michigan State’s traditions while empowering critical initiatives for the 21st century. The theme of the campaign is Empower Extraordinary.

A major goal of the campaign will be to double MSU’s number of endowed chairs and professorships, which, currently at 100, is among the smallest in the Big Ten. Endowed chairs and professorships are the gold standard of faculty distinction and recognition for academic institutions.

"The tremendous support we have received over the past three years has positioned us perfectly for the public launch of the university-wide capital campaign, which in turn will empower MSU to make unimaginable discoveries that impact all our lives while also preparing new generations of game-changing Spartans," said MSU President Lou Anna K. Simon.

The College of Engineering plans to raise $80 million as part of the Empower Extraordinary campaign, and its priorities will dovetail with those of the university. "We will create real-world engineering solutions that will solve global problems," Dean Leo Kempel said. "Our job is not just to prepare students to ride the wave of change, but to actually cause that wave to occur." Read more on the college’s campaign funding priorities at http://bit.ly/1yatkp7.

**COMMITMENTS TO DATE**

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**EMPOWER EXTRAORDINARY**

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