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Department of Civil and Environmental
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2018

2018 Civil and Environmental Engineering Department News

Department of Civil and Environmental Engineering, Michigan Technological University

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CEE

CIVIL AND ENVIRONMENTAL
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SPRING 2018 DEPARTMENT NEWS

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Greetings from Houghton!

As I write this note, we are preparing for our first serious winter storm. As a transplant from Texas, I am equally excited and nervous. I don't know how to use my snow blower and urgency is setting in. However, I am eager to begin exploring all of the fun winter sports available in this area, including skiing on Mount Ripley and the world-class cross country ski trails of the Michigan Tech Trails. I've broken out my new ice skates with mixed success...but I am ready for more!

This has been a year of transition. Dr. David Hand, who was department chair for six years, stepped down and will be retiring in the near future. Drs. William (Bill) Sproule and George Dewey will be retired by the end of the year, and Drs. Martin Auer and Ralph Hodek joined the ranks of our Emeritus faculty in May. We wish them the best on their next journey of life.

I joined as Department Chair in July and I am having the time of my life. As you know, this is a great place to live, learn, and work. My family and I are blessed to be here.

MISSION

The Department of Civil and Environmental Engineering provides an educational, professional, and intellectual experience that enables a diverse body of students, alumni, faculty, and staff to contribute to society through teaching, research, practice, and service.

VISION

The Department of Civil and Environmental Engineering will develop internationally prominent educational and research programs that will benefit all of its constituencies and, in doing so, will become an international Department of Choice.

DIVERSITY

To further the Department's mission of teaching, research, and service, the Department strives to be diverse, inclusive, and respectful of all staff, faculty, and students in support of the University's Diversity Statement. The goal of this statement is to ensure everyone will be given equitable support, opportunity, and access to resources necessary to realize individual potential while contributing to the success of the Department.

The CEE Department has added three other new faculty members in the last year. Dr. Dan Dowden joined the Department in January 2017 with research interests in earthquake engineering, resilient infrastructures, and structural control. Dr. Stephen Morse joined the Department in August and his research interests include window glass strength design and wind loads on structures. Joining us in January 2018 is Dr. Cory McDonald. His research interests include surface water quality, nutrient cycling, and impacts of climate change on aquatic systems.

The CEE Department continues to grow the prominence of the undergraduate and graduate programs and research activity. The quality of the incoming freshman class, based on ACT score, continues to increase. Our faculty, students, and alumni continue to be recognized for their impact to the profession, evidence you will find forthcoming in this newsletter. The faculty graduated a record number of PhD students with external research and public funding exceeding \$5.1 million dollars.

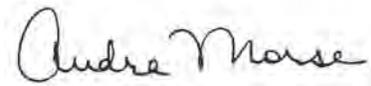
GUIDING PRINCIPLES

We will continually work to engage our students, faculty, and staff in the integration, creation, and dissemination of knowledge through teamwork, personalized instruction, research, and outreach. We will value diversity. We will measure our success by the success of our graduates and by the growth in the department's prestige.

Infrastructure is on the minds of the public and congress right now. The American Society of Civil Engineers (ASCE) released their national report card this year, indicating the need for additional infrastructure funding due to aging infrastructure and damage due to natural or manmade events. Our thoughts are with our alumni and their families living in Texas, Florida, and Puerto Rico. We wish you the best as you continue to recover from the disaster resulting from the storms.

Our infrastructure challenges and changes in technology ensure a bright future for civil and environmental engineers; and we at Michigan Tech are committed to providing a quality and relevant education to prepare our engineers for the challenges of the future. Your help in achieving our mission and goals is needed. We will be kicking off an infrastructure campaign this year to update our labs and classrooms.

Elsewhere in this newsletter you will find instructions on how to give. Thanks in advance for supporting our educational mission. If you return to the Upper Peninsula, please stop by the CEE Department—I would love to meet you. I do have travel that has me out and about and if I am in your neighborhood, I would love to meet you.



Audra Morse, PhD, PE, BCEE
Professor and Department Chair



Faculty Awards



ACI SERVICE AWARD

Dr. Tess Ahlborn was awarded the ACI Delmar L. Bloom Distinguished Service Award from the American Concrete Institute. The Institute established the award in 1969 to recognize noteworthy work on ACI technical committees. The award is given to a current (or recent) chair of a technical committee in recognition of outstanding performance.



BEST OVERALL PIC PAPER

At the American Society for Engineering Education (ASEE) annual conference in Columbus, Ohio from June 25-28, 2017, the award for the Best Overall Professional Interest Councils (PIC) Paper was presented to **Dr. David Watkins**. The award was given for his paper "Going is Not Knowing: Challenges in Creating Intercultural Engineers," with co-authors Dr. Kurt Paterson, James Madison University, and Dr. Chris Swan, Tufts University.



2017 MOISSEIFF AWARD

Daniel M. Dowden, Patricia Clayton, Chao-Hsien Li, Jeffrey Berman, Michael Bruneau, Laura Lowes, and Keh-Chyuan Tsai have been selected by the Structural Engineering Institute to receive the 2017 Moisseiff Award for the paper, "Full-Scale Pseudodynamic Testing of Self-Centering Steel Plate Shear Walls" featured in the Journal of Structural Engineering in January 2016.

The award recognizes important papers dealing with the broad field of structural design, including applied mechanics, as well as the theoretical analysis, or constructive improvement of engineering structures such as bridges and frames of any structural material. The paper was presented in April at the Structures Congress 2017 in Denver, Colorado.





GOVERNOR BOARD APPT.

Dr. Tim Colling, Director of Michigan Tech's Center for Technology and Training, has been appointed to the Governor's Infrastructure Asset Management Advisory Board. The board consists of infrastructure owners, including government agency and private telecommunication, power, and gas utility representatives.

"This gives the University a unique opportunity to advise on policy for infrastructure in Michigan, which will likely become the template for other states," Colling said. "So far, the early discussion relates to linear (pipe, road, and data cable) assets and has not gone the path of facilities."

Colling said that over the next year, Michigan Tech will be involved in meetings with the board and Governor's office to outline a framework and process for integrated asset management, similar to what Michigan Tech has done with roads and bridges. The board's activity is expected to result in legislation that will codify asset management practices for these other areas. It is likely there will be a spending package related to the bill, either directly or indirectly.

In the short term, he said, the University will be involved with the two pilot programs in the state.



AWARD OF HONOR

Dr. Audra Morse was presented the American Society of Civil Engineers (ASCE) Award of Honor by the Texas Section. The Award of Honor is the highest award given by the Section for service to the civil engineering profession and the Texas Section.



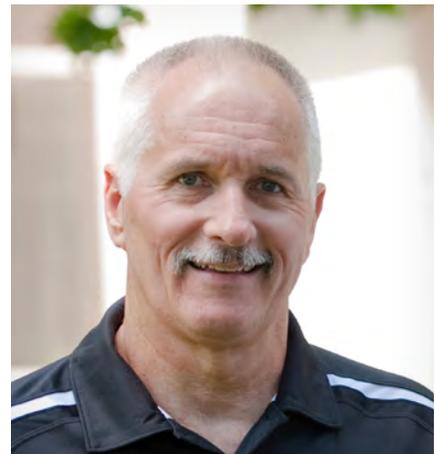
INTERNATIONAL FORUM

Dr. Stan Vitton was an invited speaker at the 2017 Forum on Innovation & Standardization in Environmental Aspects of Industrial Mineral Production in Xi-an, China. He presented an invited lecture following the forum at the China University of Geosciences in Beijing, China.



EXCELLENCE IN REVIEW

Dr. Daisuke Minakata was recognized by the Environmental Science & Technology (ES&T) Journal with the 2017 Excellence in Review Award. This award recognizes annual peer review contributions of journal papers to ensure that papers published in ES&T meet a high standard for quality.



CHAIRMAN RE-ELECTED

Mike Drewyor has been re-elected as the Chairman of the Michigan Board of Professional Surveyors for the 2017-2018 year. Drewyor was named the Roland Mariucci Professor of Practice in the Department of Civil and Environmental Engineering in May.

Transdisciplinary: Working Across Borders to Solve Global Issues

CROSSING BORDERS AND CULTURES ARE PART OF THE CHALLENGES AND BENEFITS OF TRANSDISCIPLINARY RESEARCH.

It took a conflict about Huron Creek in Houghton for **Dr. Alex Mayer** to realize his interest in transdisciplinary work. He recognized that understanding how people make decisions about contentious natural resource issues is important whether in Michigan or Veracruz, Mexico.



Mayer, the Charles and Patricia Nelson Presidential Professor of Civil and Environmental Engineering, is no stranger to working with different groups of people across disciplines. He is one of many Michigan Tech faculty members working on transdisciplinary projects, and his work in Mexico illustrates the benefits and challenges of working in such a context.

DIFFERENT DISCIPLINES, DIFFERENT BORDERS

Some of Mayer's current work takes him to the Mexican states of Veracruz and Sonora, where he is working on National Science Foundation-funded projects to understand how sustainable watersheds are, and how humans and the environment interact with each other within a watershed. To study these systems, Mayer is working with local officials to connect upstream and downstream ecosystem users.

"If you live downstream and you have a water supply for your city, you want to make sure there is always enough and the highest quality possible, but land use decisions upstream will affect that," Mayer says. "The idea is that you can create a market where the people who live downstream will pay to have the land conserved or managed in a way to make their water supply better, which might be cheaper than water treatment or drilling a well."

Mayer studies whether payments to upstream landowners to conserve parts of their properties has an impact on actual watershed health. He compares land conservation and production by modeling ecosystem services such as forest cover, biodiversity, carbon sequestration, and water quality.

"To track our model quantitatively and conceptually, we need to understand different decision making processes," Mayer says, explaining the processes matter for understanding households and their level of participation, as well as for organizations that affect how the conservation programs are run. "These programs start a conversation about what goals people have in these communities and watersheds."

DIFFERENT GROUPS, DIFFERENT CHALLENGES

Mayer says that doing transdisciplinary research across borders comes with its own set of challenges. One such difficulty can be the border itself. A project Mayer is working on concerns the Rio Grande watershed, which crosses the US-Mexico boundary. As part of the project, the researchers will meet with area stakeholders to explain how extractions from the river and groundwater depletion are affecting the watershed. However, the success of the workshop is threatened with recent changes in the US immigration policy that limit the participation of Mexican team members.

While transdisciplinary research is important, there is still the need for advances in the science of each discipline in the larger project, rather than merely conducting transdisciplinary research for its own sake. Approaching a problem from multiple angles is sure to address a problem more holistically, but each approach must be rooted in strong disciplinary foundations.

“We need fundamental advances in basic science in every discipline,” Mayer says.

“There is a greater and greater need for science to drive policy; that we’re contributing to better decisions being made. We’ve been saying we want to do this for years, decades really. Little by little, there have been some successes, though we have a long way to go, in this country and internationally.”



Senior Design: Rail Transportation

THE RAIL TRANSPORTATION PROGRAM LED TWO RAIL RELATED CIVIL/ENVIRONMENTAL SENIOR DESIGN PROJECTS DURING THE 2016-17 SCHOOL YEAR.

During the fall semester, a team of 15 students worked on improvements to the Peshekee Log Yard, owned and operated by Longyear, LLC.

Their work included rail and highway transportation improvements to serve the site, preliminary plans for a rail-served transload warehouse and fuel transload area, and environmental permitting requirements for the proposed work.

Environmental costs were reduced by the team recommendation for wetland preservation in place of more costly remediation methods.

During the spring semester, a separate team of 16 students worked with Sawyer International Airport to provide conceptual and preliminary work on rail access to a proposed refinery site and rail and highway access to a proposed warehouse site.

The design teams did a detailed cost analysis, along with plans for trackwork to meet the airport access goals. The student teams also did an environmental compliance review of a recent study on PFC contamination on the airport site.

The study was produced by the US Air Force Civil Engineering Center. The Senior Design team produced a detailed review, including recommendations for additional testing and monitoring.



Peshekee Wood Yard

LONGYEAR
A NATURAL RESOURCE COMPANY



Associated Schools of Construction Sophomore Summit



DARIAN REED, a civil engineering student and member of the Rail Transportation Program, was selected to participate in the Kiewit sponsored 2017 Sophomore Summit. The October event was held in conjunction with the Associated Schools of Construction Region 3 Conference. The goal of the Summit was to promote construction engineering to sophomore level undergraduate students.

Reed walked away from the event with a much greater understanding of the construction field and a summer internship with Kiewit. Michigan Tech also sponsored two teams of junior and senior level students at the conference in the Heavy Construction Bidding Competition. Dr. Kris Mattila was the mentor for a team from the CEE Department and Michael Drewyor for a team from the School of Technology.

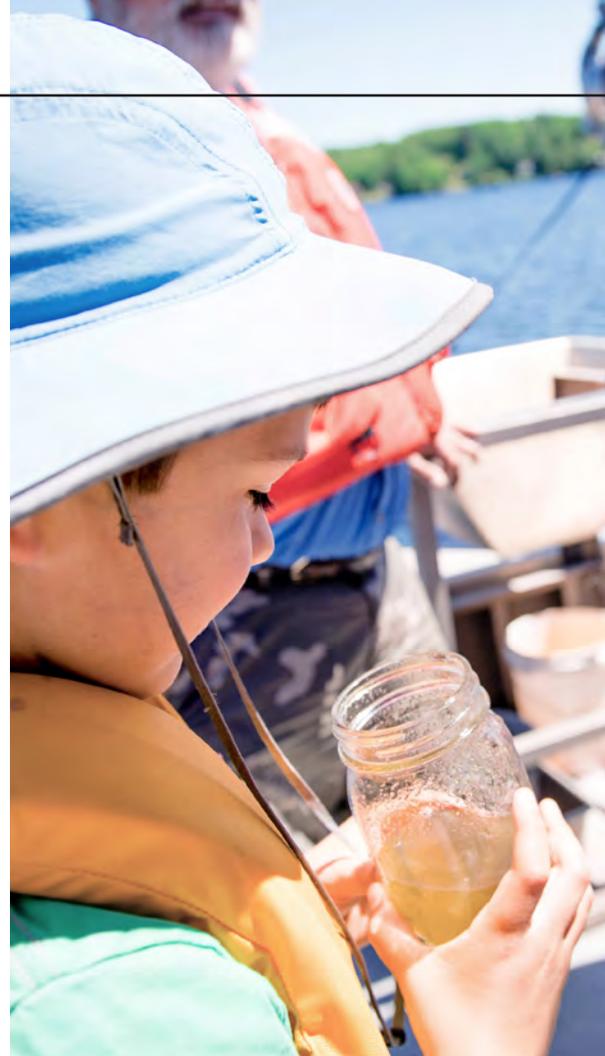


Ride the Waves

SPONSORED BY



YOUNG SCIENTISTS SAMPLE THE FRESHWATER FOOD CHAIN THROUGH GENERAL MOTOR'S RIDE THE WAVES AT MICHIGAN TECH'S GREAT LAKES RESEARCH CENTER.



Whitefish bellies, lard-filled olive, and a boat ride on Michigan Tech's 36-foot Research Vessel (R/V): Agassiz—just the thing to hook elementary students on science, technology, engineering, and math (STEM).

Funded by GM since 2013, Ride the Waves gets about 700 students per year out on local waters and into the Great Lakes Research Center (GLRC) labs to work side-by-side with Michigan Tech students, staff, and faculty.

The goal: to better understand the freshwater environment and factors that affect it—from phytoplankton to mining waste. GM donates the \$25,000 annual cost of operations and staffing.

Students board the R/V Agassiz in groups of 15, half remaining in the lab with Ride the Waves instructors—Michigan Tech students—to guide them through lab investigations, while the students aboard collect surface-to-bottom lake samples (every layer tells a story).

The program is coordinated by Joan Chadde in Michigan Tech's Center for Science and Environmental Outreach and reaches out to teachers, math and science centers, non-profit organizations, summer camps, Upward-bound college programs, and other youth organizations throughout the Upper Peninsula and northern Wisconsin.

In the past year, Dr. Marty Auer, CEE Professor Emeritus, helped to expand GM funding to incorporate working with Flint and Genesee County teachers and students in downstate Michigan.

Wherever the program is happening, it is providing families and educators with fun and interactive ways to learn about the resources that surround the Great Lakes state.

“It’s so important for kids to have these experiences. I hope to organize another Agassiz outing this summer. The ‘Navigating by the Stars’ program sounds very intriguing,” says participating parent, Wendi Heikka.



Humanitarian Engineering

BEYOND JOB PLACEMENT STATISTICS AND LIFETIME EARNINGS, **MICHIGAN TECH GRADUATES MAKE THEIR MARK** IN THE WORLD IN WAYS NOT CALCULATED IN DOLLARS AND CENTS.

Peace Corps Master's International (PCMI) alumnus **Nick Schreiner '11** is an example of someone using his engineering skills to make an impact in some of the most troubled spots on the planet: fighting Ebola in Sierra Leone, supporting displaced populations in a Protection of Civilian (POC) zone in South Sudan, and working with refugee populations in Democratic Republic of the Congo (DRC) and Central African Republic (CAR). Schreiner was recognized for his efforts with Michigan Tech's Humanitarian Award in August at the Alumni Dinner & Awards Ceremony.

Schreiner has worked for Doctors Without Borders (Médecins Sans Frontières—MSF) for more than three years, utilizing experience from his master's degree in environmental engineering.

While MSF is commonly considered a humanitarian group for doctors and nurses, a large portion of staff is non-medical, including water and sanitation engineers, electrical engineers, biomedical engineers, and communications professionals.

“I tried a more traditional engineering position at a Portland, Oregon-based firm after graduation,” Schreiner says. “I found my former Peace Corps service in Mauritania and Mali had planted a seed calling me to do something more with my life.”

He started working for MSF in the fall of 2012 as a water and sanitation engineering specialist in the DRC. He was there for 10 months. After this, MSF called him again to work for six weeks in CAR in a refugee camp set up beside the airport in the capital city Bangui. There, MSF staff saw 10-15 new wounded patients each day, on top of managing the health concerns and disease outbreaks of a refugee camp. He and his team worked to increase access to clean water and install safe waste disposal systems.

In fall 2014 as the Ebola epidemic continued to spiral, Schreiner was asked to join a MSF team in Sierra Leone. “This was a different kind of insecurity,” he says. “You can’t see Ebola. It is both everywhere and nowhere.”

Everyone in the Sierra Leone treatment center where he worked was uneasy; they were required to implement a “no touch” policy. In addition to working in water and sanitation, he also managed biosafety to control infection, including special procedures for waste control and removal of the deceased.

“This really stretched me outside of my engineering training,” Schreiner says.

“However, I found engineering had prepared me to carefully navigate the necessary procedures and protocols in a new context.”

After returning home for a short break, Schreiner took another position in Sierra Leone, focusing on outreach to communities. Here his Peace Corps experience was invaluable in understanding the everyday complexities of life in West Africa.

“Our protocols to stop the spread of Ebola were tough and contradicted natural tendencies to care for the sick, including isolating and moving them to treatment centers,” he says. “Sometimes sick people would be taken to these centers, die, and immediately be buried to prevent the spread of the disease. This was extremely hard for families.”

Most recently, Schreiner has worked in South Sudan, where he returned to a wartime context. Specifically, he was assigned to a United Nations POC zone. In April 2015 new fighting in the region swelled the POC population to 130,000, bringing abysmal water and sanitation conditions.

“With a shortage of latrines, water contamination increased and a Hepatitis E outbreak hit the population in the POC zone,” Schreiner says. “You’re often tackling the challenge of clean water and sanitation in precarious environments.”

The work is fast paced and exciting— from flying around mountains in a small aircraft to racing across a lake to address a health emergency—but he is not in it for the adrenaline rush.

“This work can take a toll on you, but it’s the national staff that keep me going. They are incredible to work with and have a long-term commitment and impact through their work,” he explains. “You see the best and the worst of what humans are capable of, but it is a way of showing solidarity and bearing witness—témoignage—to share with the world the human suffering they see, a foundational aspect of MSF’s work around the world.”





THE 2017 INDUCTION
WAS HELD ON OCTOBER
13. EIGHT ALUMNI WERE
HONORED, BRINGING THE
ACADEMY MEMBERSHIP
TOTAL TO 124.

Academy of Civil & Environmental Engineers

THE ACADEMY WAS
ESTABLISHED IN
1993 TO RECOGNIZE
EXCELLENCE AND
LEADERSHIP IN
ENGINEERING AND
CIVIC AFFAIRS OF
OUTSTANDING
GRADUATES AND
FRIENDS OF THE CIVIL
AND ENVIRONMENTAL
ENGINEERING
DEPARTMENT.

For a complete list of members
and biographies please visit:

[MTU.EDU/CEE/PEOPLE/
ALUMNI/ACADEMY](http://MTU.EDU/CEE/PEOPLE/ALUMNI/ACADEMY)



THOMAS COLEMAN, PE, '57

Thomas A. Coleman completed his baccalaureate degree in civil engineering in 1957 at Michigan Tech and later earned a master's degree at Michigan State in 1973. After graduation, he joined the Michigan State Highway Department, now the Michigan Department of Transportation. His MDOT career spanned 40 years in variable positions starting as a trainee and retiring as Deputy Director for Operations in 1997.



ROGER CRIMMINS '71

Roger Crimmings completed his baccalaureate degree in civil engineering in 1971. He is the President of A. Lindberg & Sons, Inc. of Ishpeming, Michigan, a private company offering highway construction, crushing, bridges, heavy underground excavating, dams, and industrial site development services. Crimmings joined ALS in 1966 and has served as treasurer and vice president and has been in his current role as president since 1999.



**CHARLES FARRAR,
PE, PHD '79**

Charles Farrar completed his baccalaureate degree in civil engineering at Michigan Tech in 1979. From there he went on to complete his master's and PhD in civil engineering from the University of New Mexico in 1982 and 1988, respectively. Farrar began his 34-year career in 1983 with Los Alamos National Laboratory (LANL) and is currently the Engineering Institute Leader.



GARY HAGSTROM, PE '72

Gary Hagstrom completed his baccalaureate degree in civil engineering in 1972 and accepted employment with Standard Oil of California (later renamed Chevron Corporation). He obtained his Professional Engineer license in California in 1974 and spent 35 years with Chevron, retiring in 2007 as President of Chevron's Project Resources Company.



JAMES KEIGHLEY, '76

James A. Keighley received his civil engineering degree from Michigan Tech in 1976. He went on to join Procter & Gamble as a Project Engineer. He retired as Director of Engineering and Technology for P&G's Boston based Gillette shaving business in 2013. He then joined Kraft Foods as Vice President of Engineering in their Chicago headquarters for two years before retiring in 2015.



**CATHERINE LESLIE,
PE, CAE '83**

Cathy Leslie graduated from Michigan Tech in 1983 with a bachelor's degree in civil engineering. After graduation, she joined the Peace Corps and served in Nepal as a Water/Sanitation Engineer. She is currently the Executive Director for Engineers Without Borders-USA, a non-profit organization devoted to improving the quality of life in developing communities while improving engineering education to include a global perspective.



BRUCE LOWING, '80

Bruce Lowing is the former CEO and President of Hardman Construction, Inc., a heavy/highway contractor headquartered in Ludington, Michigan. After earning his civil engineering degree from Michigan Tech in 1980, Lowing worked as project manager and estimator before becoming the President of the company in 1993. He led Hardman Construction's efforts into the bridge building industry in Michigan, as well as the company's specialization in geotechnical construction.



KIMBERLY NOWACK, PE '85

Kim Nowack received her civil engineering degree from Michigan Tech in 1985. She accepted a position with the Michigan Department of Transportation's (MDOT) Construction Division in Kalamazoo. In 2002, Kim accepted her current position as Chief Engineer for the Mackinac Bridge Authority. She is the first woman to hold this position in the Bridge Authority's 60-year history.

Academy Members

Bernard D. Alkire, PhD, PE '61
 Donald R. Anderson, PE '67
 Richard O. Anderson, PE '71
 Terry L. Anderson, PE '69
 F. William Baxandall, PE '59, Deceased
 Ned W. Bechthold, Honorary Member, Deceased
 Philip R. Belisle, PE '60
 Lee E. Bernson, PE '65, Deceased
 William J. Bier, PE '50, Deceased
 James R. Buck, PhD '52, Deceased
 Debra A. Campbell, PE '76
 Gerald J. Caspary '43, Deceased
 Ali Catik '76
 Thomas Coleman, PE '57
 Harland Couillard '75
 Cletus L. Courchaine, PE '52, Deceased
 Richard H. Crannell, PE '65
 Roger Crimmins '71
 Dale K. Deibel '73
 Paul J. DeKeyser '78
 George R. Ehlert, PE '77
 James T. Emerson '60, Deceased
 Charles Farrar, PhD, PE '79
 John A. Fortier, PE '78
 Herbert L. Fluharty '65
 Paul B. Frair '50
 Phillip V. Frederickson, PE '60
 Annette Gardiner, PE '82
 Peter J. Grant '68
 William J. Grenney, PhD '59
 Russell A. Gronevelt, PE '68
 Herman Gundlach, Honorary Member, Deceased
 David P. Gustafson, PhD, PE '61
 Gary Hagstrom, PE '72
 John Haro, FAIA, Honorary Member
 Thomas M. Healy, PE '65
 George H. Hermanson '73
 Burd Hikes '49, Deceased
 Robert D. Hitch, PE '54, Deceased
 Gary Holcombe, PE '72
 Donald L. Holley, PE '53
 Thomas R. Irwin, PE '63
 James M. Jabara '50
 Harold S. Jensen, DE '52
 Thomas Kaderabek, PE '73, Deceased

Christopher Kaempfer, PE '71
 James Keighley '76
 Charles G. Kellogg '66
 Raymond C. Kestner '55
 John P. Klus, PE, PhD '57, Deceased
 James L. Krause '51, Deceased
 Kristine M. Krause '76
 Ronald M. Krump '57
 Debra Larson, PhD, PE '78
 William H. Leder, PE '68
 Catherine Leslie, PE, CAE '83
 Paul R. Liimatta, PE '61
 Roger W. Liska, EdD, PE '65
 Kim M. Lobdell, PE '79
 Bruce Lowing '80
 Robert J. Luther '61
 Richard H. Lyon '76
 C. Thomas Maki, PE '71
 Michael W. Malloy, PE '70
 Roland A. Mariucci '58
 John F. Marshall '68
 William F. Marshall '69
 Richard L. Masica, PE '58, Deceased
 David I. Matson '69
 Gerald J. McCarthy, PE '48, Deceased
 Franklin D. Meyers, PE '57, Deceased
 William Murchie, PE '76
 Edward S. Neumann, PhD, PE '64
 Kenneth E. Noll, PhD, PE '59
 Kimberly Nowack, PE '85
 Brenda O'Brien, PE '84
 Melvin E. Orchard, PE '49
 John E. Paas, Jr., PE '41, Deceased
 Ronald J. Pasquinelli, PE '59, Deceased
 Howard Perko, PhD, PE '93
 Peter G. Perla, PE, RLS '38, Deceased
 Eric Peterson, PE '70
 Warren B. Peterson '52
 Rob L. Petroelje, PE '74
 Linda D. Phillips, PE, PMP '77
 David P. Post '56
 Joseph M. Post '50, Deceased
 Damoder Pati Reddy, PhD, PE '62
 Delmar R. Rediger '58, Deceased
 Thomas J. Rentenbach, DE, PE '32, Deceased
 Brian C. Rheault, PE '82

Raymond Rought, PE '70
 David T. Rowe, PE '51
 William E. Saul, PhD, PE '55
 Kenneth D. Seaton '51
 Robert F. Seaton '52
 Marvin L. Sorvala, PE '72
 Todd I. Stewart, PhD '68
 Mark R. Stumpf, EdD, PE '65
 Darryll L. Sundberg, PE '74
 Robert M. Thompson, Honorary Member
 Richard G. Timmons, PE '69
 Donald F. Tomasini '54, Deceased
 James D. Townley, PE '71
 Frank C. Townsend, PhD, PE '62
 Clarence P. Ulstad, PE '50
 Paul D. Uttormark, PhD '62
 Thomas Valent, PE '73
 Jerold B. Van Faasen, PE '34, Deceased
 John O. Vartan, PE, RLS '70, Deceased
 Louis C. Verrette '34, Deceased
 William C. Verrette '61
 Ronald R. Vriesman, PE '78
 Douglas M. Watson, PE '73
 Daniel White '69
 Richard D. Wilcox, PE, PS '82
 Helmuth Wilden, PE '65
 George H. Williams, PE '52, Deceased
 Steven E. Williams, PE '73
 Theodore C. Williams, PE, DEE, Honorary Member, Deceased
 William J. Winiarski, PE, PS '73
 Norman D. Witteveen, PE '61, Deceased
 Robert C. Wylie, PE, RLS '47
 Philip C. Youngs, PE '57, Deceased

Faculty Awards

OUTSTANDING FACULTY AWARD

Dr. David Hand was the recipient of the Fraternity & Sorority Life 2017 Award for Outstanding Contributions as a Faculty Member at Michigan Tech. He was nominated by Ashley Baldes, who writes:



Dr. Hand is deserving of this award because he shows more dedication to his Department and students than I thought possible. I had the opportunity to have Dr. Hand as a professor in an introduction to environmental engineering class and my senior lab, as an advisor for Concrete Canoe, and just someone to say hi to when I'm walking through DOW and I see his office door open.

As a student, Dr. Hand has shown me what it means to be a good engineer, how great it is to learn, and where that knowledge can take you... He has an open line of communication between student and professor and that makes the class content and learning so much more enjoyable. I always feel like I can stop in, say hi, and come out 10 minutes later with a lifetime of knowledge. When I think of my professors here at Michigan Tech, I think of Dr. Hand as he has had such a strong impact on my learning and career choices. Because of that, I believe he is an outstanding faculty member.



DISTINGUISHED TEACHING AWARD

Dr. William Sproule, Professor of civil engineering, was voted the 2017 Howard Hill – Outstanding Faculty of the Year Award. Sproule teaches transportation engineering courses. The Howard E. Hill Award, which recognizes excellence and passion for teaching, was established in 1994, and is determined annually by the Civil and Environmental Engineering Department students.

New Faculty



DR. DANIEL DOWDEN

joined the Civil and Environmental Engineering Department as an assistant professor in January 2017. After earning a PhD from the University at Buffalo in 2014, Dowden remained on as the structural and testing

engineer for the Structural Engineering and Earthquake Simulation Laboratory (SEESL) until October 2016. At SEESL, he was involved with service-to-industry seismic qualification shake-table testing. His teaching interests include earthquake engineering, structural dynamics, structural analysis, steel, and reinforced concrete design.



DR. STEPHEN MORSE

joined Michigan Tech's Departments of Civil and Environmental Engineering and Mechanical Engineering-Engineering Mechanics as an assistant professor. He received his PhD in Civil Engineering from Texas Tech

University. His research interest focuses on structural glass. Morse taught as an assistant professor at Texas Tech University. He also has multiple awards and publications.



Department Awards

THE NICOLE BLOOM AWARD FOR ENVIRONMENTAL SUSTAINABILITY

The Civil and Environmental Engineering Department developed the Nicole Bloom Award for Environmental Sustainability in 2006. The award is dedicated in honor of Nicole Bloom, an outstanding Civil and Environmental Engineering Department graduate.

This award is made annually to an undergraduate civil or environmental engineering student who has demonstrated leadership, passion, and activism for effecting environmental sustainability at the local, national, or global level. This award is accompanied by the Pati Damoder and Soumitri Reddy \$1000 undergraduate scholarship.



The 2017 Nicole Bloom Award was given to Meredith Brehob and Jeremy Luebke. Brehob is from Dearborn, Michigan and is currently a junior studying environmental engineering. Like Nicole Bloom, she has displayed a similar passion for the environment, and has been actively engaged in efforts to improve the environment at Michigan Tech through involvement with the Society for Environmental Engineers.

Luebke is from Rolling Meadows, Illinois and is a senior in environmental engineering. He has shown a very strong passion for environmental sustainability and research related to environmental concerns. He has been working with Dr. Shiliang Wu to learn GEOS-Chem model, which is a very complicated global 3D model for atmospheric chemistry.



PROFESSOR OF PRACTICE

The Roland A. Mariucci – Professor of Practice was passed on to **Mike Drewyor** beginning in the fall of 2017. Drewyor has been mentoring Senior Design sections in the Department since 2007. His background as a practicing engineer, past owner of an engineering firm, and a professional surveyor have made him a valuable resource for our students.



2017 WILBUR HAAS GRADUATE RESEARCH EXCELLENCE AWARD

The Wilbur Haas Graduate Research Excellence Award is made annually to a graduate level student in civil or environmental engineering to recognize outstanding student scholarship and research contributions. This award is accompanied by a \$1000 departmental fellowship.

This year, two doctoral students were selected by the Graduate Research Committee to receive the Wilbur Haas Graduate Research Excellence Award.

Ben Winter, who completed his civil engineering doctoral degree in May, was nominated by his advisor Dr. Andrew Swartz. Winter accepted a research position with the Los Alamos National Laboratory.

Chao Zhang (pictured above) is working towards his civil engineering doctoral degree and was nominated by his advisor Dr. Zhen Liu.



DEPARTMENT SCHOLAR

Each year the Department selects one of our highest achieving students to be considered for the University Scholar Award.

Emily Passmore was selected as the 2017 Civil and Environmental Engineering Department Scholar. She was nominated by Dr. Zhanping You.

Passmore has collaborated with You's research group on testing and data analysis of asphalt samples and will be working on a journal paper this year as a co-author. Passmore is a member of the Michigan Tech Research Scholars Program and has maintained a GPA of 3.93, while also serving as Training Squadron Commander in the Air Force Reserve Officer Training Corps.

During her time at Michigan Tech, she has enjoyed skiing, exploring the local area, and playing hockey on the women's club team. After graduation, she plans on going into the Air Force to serve as a Civil Engineering Officer and will work towards a master's degree in civil engineering.



GRADUATE TEACHING ASSISTANT AWARD

Ehtesham Khan was voted the 2017 Graduate Teaching Assistant of the Year. He is from Hyderabad, India and joined the Civil and Environmental Engineering Department in 2015. He is pursuing a master's degree in civil engineering under Dr. Andrew Swartz in the field of structural health monitoring.

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This past year was an exceptional season for Michigan Tech's Concrete Canoe Team. Michigan Tech successfully defended its title at the regional level and placed 11th at the National Competition in Golden, Colorado.

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