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7-25-2024

## ME-EM eNewsBrief, June 2024

Department of Mechanical Engineering- Engineering Mechanics, Michigan Technological University

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# ME-EM

Michigan Tech eNewsBrief Vol. 20 | Issue 2 | JUNE 2024

For the latest news and info about our faculty, students, and staff, please visit our website at [www.mtu.edu/mechanical](http://www.mtu.edu/mechanical). Visit us on [Facebook](#), [Instagram](#) & [Twitter](#).

## A Note from the Chair

I hope your summer is going well and you're enjoying the nice weather. As we progress through the season, I'm excited to share some significant changes happening in the ME-EM department.

We are in the process of adding a BS degree in Aerospace Engineering, with final approval expected from the State of Michigan in October. Starting August 15, our department name will change to the Mechanical and Aerospace Engineering Department! The RL Smith Mechanical Engineering – Engineering Mechanics building will be renamed the RL Smith building, although I'm sure it will be referred to as the MEEM for years to come.

We are pleased to welcome three new tenure track faculty this Fall and are looking forward to the collaborations, new ideas, and expertise they bring – all seem well prepared for great success.

- **Dr. Fei Long** was previously an instructional track faculty in our department who has been working to establish a research program with Dr. Ezra Bar Ziv on recycling plastics. Dr. Long's specialty in this research is implementing machine learning to identify the type of plastics in the process.
- **Dr. Wei Wei** joins us from Wichita State University where she was a tenured faculty member. Dr. Wei's research spans several topics and includes renewable energy and additive manufacturing.



The Alumni Gateway Arch, a new campus landmark welcoming students and visitors from the west, with lead donor Mike Trewhella (BSBA '78) and his family gathered beneath it.

- **Dr. Alden Adolph** comes to us from St. Olaf College in Minnesota and will have a 30% split appointment in our department. Dr. Adolph is a recent NSF CAREER award winner and focuses her research on characterization and properties of snow, no better place than Houghton for her research as we get a lot of it, at least in a typical year!

As we have come to expect, our faculty and staff had another quarter of great recognition and achievement, as you'll see in the articles. I am always very impressed by their achievements and proud to talk about what they have done with alumni and industry! They always leave me with plenty to boast about and make my job easier.

So this will be the LAST eNewsBrief under the ME-EM department banner before we adopt our new identity! We are looking forward to this big step but are also a bit apprehensive about changing our brand which has become very well known over the last 25+ years.

Thank you again for your continued support and I look forward to contributing to the MAE eNewsBrief this Fall.

~ Jason R. Blough, Ph.D. | *ME-EM Dept Chair & Distinguished Professor*

## Upcoming Events

[Reunion Weekend 2024](#) - August 1-3, 2024 | Click to see the [schedule](#).

[ME-EM Open House](#) - Friday, August 2 | Stop by anytime between 1-3 pm!



A university photographer captured this breathtaking photo of the aurora borealis during last September's spectacular solar storms.

### Welcome New Faculty

**Dr. Wei Wei** joins the faculty of the ME-EM department as Associate Professor. Dr. Wei came to us from Wichita State University where she was an assistant professor. She earned her Ph.D. from Michigan Technological University in Environmental Engineering.



Dr. Wei's research spans advanced materials synthesizing, renewable energy conversion devices, photocatalytic processes for H<sub>2</sub> generation, additive manufacturing, and the mechanical properties of composite materials. With over 40 publications in prestigious journals and more than 45 presentations at international conferences, Dr. Wei has been recognized as an Engineering Unleashed Fellow by the Kern Family Foundation and an Emerging Investigator by the Journal of Materials Chemistry A.

**Dr. Fei Long** is now joining the tenure-track faculty as an Assistant Professor. He has been part of our faculty as an assistant



teaching professor since 2013, initially serving as an Instructor and Research Associate in the ME-EM department. Prior to joining Michigan Tech, Dr. Long was an application scientist in the Nano Surfaces Division of Bruker Co., focusing on nanomaterial characterization techniques. He received his Ph.D. in Biomedical Engineering from Shanghai Jiaotong University, China, and his B.S. in Biomedical Engineering from Xi'an Jiaotong University.

Dr. Long's research focuses on the integration of chemical and mechanical processes with advanced characterization techniques to transform waste materials into valuable resources.

**Dr. Alden Adolph** joins the ME-EM faculty as an Assistant Professor with a joint appointment in Engineering Fundamentals.



She comes to Michigan Tech from St. Olaf College in Minnesota, where she was a faculty member in the Physics department. Dr. Adolph earned her Ph.D. in Engineering Sciences from Dartmouth College.

Dr. Adolph's research focuses on the physics of snow, particularly the physical and optical properties of snow and their relationship to temperature. She is a recent NSF CAREER award winner and has been recognized for her interdisciplinary innovation in teaching, especially her rapid transition to remote learning, with the Cassling Award for Faculty Innovation.

### Faculty/Staff Awards/Accomplishments

**Dr. Ezra Bar-Ziv** (Professor, ME-EM) was mentioned by [Waste Dive](#) in a story about the REMADE conference held April 10-11 in Washington, D.C. Bar-Ziv presented research on a pilot-scale chemical recycling method that uses solvents to extract polypropylene at the conference.



**Chuck Carey** (Research Engineer, ME-EM) BSME '22, presented a talk on "Testing a Novel Lunar Regolith Compaction Device for Site Preparation" at the 24th meeting of the [Space Resources Roundtable](#), held in Golden, Colorado in June.



**Dr. Ana Dyreson** (Assistant Professor, ME-EM), was featured in the [2024 Michigan Tech Magazine](#). Dr. Dyreson leads Michigan Tech's Great Lakes Energy Group and collaborates on various climate- and energy-focused projects.



**Dr. Jaclyn Johnson** (Teaching Professor, ME-EM) MSME '08, PhD '11, will serve as the new faculty advisor for the Society of Women Engineers (SWE) section at Michigan Tech. Dr. Johnson will be the new faculty advisor for the Michigan Tech section of the Society of Women Engineers (SWE) starting in Fall 2024. Dr. Johnson is a member of Michigan Tech's Presidential Council of Alumnae. She is taking over from Gretchen Hein (MMET).



**Mary Kozmor** and **Meg Raasakka** (ME-EM Office Staff) won third place at the Copper Country Community Arts Center's "[Art in Silico](#) Computational Art Show". Mary's digital painting of the Greek god Hephaestus, titled "Genesis Nexus" paired with her poem cautioning about the "double-edged nature" of AI that was hand-lettered by Meg, were [featured](#) in the event. Hosted by the Institute of Computing and Cybersystems (ICC) the event included a reception at the Historic Orpheum Theater in Hancock and was covered by the [Keweenaw Report](#) and [Upper Michigan's Source](#).



**Dr. Guy Meadows** (Research Professor, ME-EM /Adjunct Professor, GLRC) was quoted by [Discover Magazine](#) in a story exploring the Great Lakes' shipwreck history and how the lakes' characteristics lead to dangerous winds and waves. The story referenced a 2021 [Michigan Tech News](#) story about a monitoring buoy and high-frequency radar system deployed by MTU researchers in the Straits of Mackinac.



**Dr. Gregory Odegard** (Professor and John O. Hallquist Endowed Chair in Computational Engineering, ME-EM) has been named a 2024 University Professor by the Office of the Provost and Senior Vice President for Academic Affairs. Dr. Odegard is recognized for his outstanding contributions to aerospace and computational multiscale mechanics modeling and materials science. Read more in [Tech Today](#).





## Faculty/Staff Awards/ Accomplishments (cont'd)

**Dr. Bhisham Sharma** (Assistant Professor, ME-EM) was a recipient of a Research Seed Grant as announced in [Tech Today](#) by the Vice President for Research Office for the Spring 2024 Research Excellence Fund (REF).

**Dr. Bhisham Sharma** (Associate Professor, ME-EM) was a [plenary speaker](#) at the 2024 NOISE-CON in New Orleans, LA, in June. He spoke about "Enabling Multifunctionality Acoustical Materials Through Additive Manufacturing," discussing current additive methods and providing an overview of recent work on developing novel structures for multifunctional acoustical applications. His presentation included topics such as acoustic liners for aircraft noise reduction, thin hair-like fibers replicating feathers, airtight inflatable structures, and ceramic structures for engineering applications.



**Dr. Paul van Susante** (Assistant Professor and Lou and Herbert Wacker Professor of Mechanical Engineering, ME-EM) received the [2023 ASCE Outstanding Technical Contribution Award](#). This award, one of the highest offered by the ASCE Aerospace Division, recognizes substantial contributions to aerospace engineering and space exploration. The award was announced at the 19th ASCE Earth & Space conference in Miami, Florida, hosted by Florida International University and is highlighted on page 19 of the [conference program](#). Dr. van Susante, who advises two NASA challenge teams and the Multiplanetary Innovation Enterprise (MINE) team at Michigan Tech, leads the [Planetary Surface Technology Development Lab](#) (PSTDL, or Huskyworks).



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**Dr. van Susante** participated in the 24th meeting of the [Space Resources Roundtable](#), held in Golden, Colorado, from June 3-7 where he presented a poster and chaired the session "Regolith Excavation and Conveyance." His poster was titled "Lunar and Mars ISRU, Excavation and Construction Test Capabilities and Project Progress at the MTU-PSTDL." Research Engineer **Chuck Carey** (BSME '22) and four students also presented their work. Their presentations and posters were well received, showcasing Michigan Tech's strong representation.

## Student Accomplishments and Awards

**Robin Austerberry** (sr., EME) represented Michigan Tech's Planetary Surface Technology Development Lab (PSTDL) at the 24th meeting of the [Space Resources Roundtable](#) in Golden, Colorado. Robin presented a poster titled "Durability Testing of a Lunar Surface Excavation Rover." The PSTDL team is advised by **Dr. Paul van Susante** (Asst. Prof., ME-EM).



**Matt Beals** (BSME '22, MSME '24), received an Honorable Mention in the [NSF Graduate Research Fellowship Program](#) (NSF-GRFP), a significant academic achievement. This prestigious recognition is awarded to exceptional graduate students in STEM disciplines early in their careers, supporting them through graduate education. NSF-GRFP fellows are an elite group, with 42 fellows having become Nobel Laureates and about 450 members of the National Academy of Sciences.



**Carissa Best** (jr., EME) was one of three Michigan Tech students awarded a SWE-Wisconsin scholarship at the [2024 SWE-Wisconsin Professional Day](#) in April.



**Colin Freed** (sr., EME) has been named to the College Sports Communicators (CSC) Academic All-District Team. The organization recognizes top student-athletes for their combined performances in sports and academics. Freed qualified for his second NCAA Skiing Championships and earned All-Region and First Team All-CCSA honors, while maintaining a 3.63 GPA in mechanical engineering. Read more at [Michigan Tech Athletics](#) and/or the [Daily Mining Gazette](#).



**Kara Hardy** (sr., EME) debuted her composition "Crymson Hope" at the Rozsa in April. She shared the stage with the Superior Wind Symphony and Campus Concert Band as they joined together for an epic [concert](#) that featured performances of movie and video game music.



**Janith Godakawela Kankanamalage** (Ph.D. candidate, ME-EM) received the [Classic Paper Presentation Award](#) at NOISE-CON 2024. His presentation, "[Overview of Ingard, K. Uno, and George C. Maling Jr.'s 1974 Paper on Physical Principles of Noise Reduction](#)," included research from Michigan Tech's Mechanics, Acoustics, and Dynamics Lab ([MADLab](#)) under Dr. Bhisham Sharma (Associate Professor, ME-EM). This award is part of an annual conference by the Institute of Noise Control Engineering (INCE) and this year's event featured a session honoring Maling, an INCE founding member.



Janith Godakawela and Dr. Bhisham Sharma after the award ceremony.

## Student Accomplishments and Awards (cont'd)



**Sam Lange** (sr., ME), a cross country and track student-athlete, has been named to the Academic All-District Team by College Sports Communicators for the second year in a row. Sam qualified for the NCAA Outdoor Track & Field Championships in the 1,500 meters, was the GLIAC's 1,500m runner-up, and finished 21st at the Midwest Regional in cross country. He maintains a 3.97 GPA in mechanical engineering. The [Daily Mining Gazette](#) covered Michigan Tech track and field's Sam Lange being named the GLIAC Track Athlete of the Week.



**Christi LeCaptain** (BSME '24), the outgoing team lead for MTU Lunabotics, participated with the rest of Michigan Tech's PSTDL representatives in a site visit with Lunar Outpost, one of our research project partners during the 24th meeting of the [Space Resources Roundtable](#), held in Golden, CO. Christi is also an incoming PSTDL Ph.D. student advised by **Dr. Paul van Susante** (Asst. Prof., ME-EM).



**Revanth Matvey** (Ph.D. candidate, ME-EM) was selected as a summer 2024 recipient of the Graduate School Doctoral Finishing Fellowship. His doctoral program advisor is **Dr. Susanta Ghosh** (Asst. Prof., ME-EM).



**Catherine Prince** (sr., EME), a Michigan Tech Air Force ROTC Cadet, was announced by the [American Battle Monuments Commission](#) as one of two recipients of the 2024 ABMC International Fellowship. The fellowship includes a two week deployment to the Netherlands American Cemetery for its Memorial Day commemoration to honor US service members from generations past and educate future generations on the costs of freedom. The announcement was picked up by the [Daily Mining Gazette](#).

**Michael Puchalski** (sr., ME), has been recognized as an [Academic All-Star](#) by the Theta Tau Educational Foundation, which recognizes students solely on the basis of academic excellence and highlights the university's commitment to fostering academic excellence.



**Udit Sharma**, (Ph.D. candidate, ME-EM) was selected as a summer 2024 recipient of the Graduate School Doctoral Finishing Fellowship. His advisor in the ME-EM doctoral program is **Dr. Jeffrey Allen** (John & Joan Calder Professor in Mechanical Engineering, ME-EM).



**Yunsheng Su** (Ph.D. candidate, ME-EM) was selected as a summer 2024 recipient of the Graduate School Doctoral Finishing Fellowship. His ME-EM doctoral program advisor is **Dr. Shangyan Zou** (Asst. Prof., ME-EM).



**Travis Wavrunek** (PhD candidate, ME-EM) presented a talk on "Development of the Tethered Mechanism for Persistent Energy Storage and Transmission (TEMPEST) System for the Watts on the Moon Challenge" at the 24th meeting of the [Space Resources Roundtable](#), held in Golden, Colorado. His advisor is **Dr. Paul van Susante** (Asst. Prof., ME-EM).



**Ellie Zimmermann** (BSME '24) presented a talk on "Cryogenic Vacuum Testing of a Heated Cone Penetrometer for Thermal Detection and Quantification of Water in Icy Lunar Regolith Simulant" at the 24th meeting of the [Space Resources Roundtable](#), held in Golden, Colorado. Zimmermann is an incoming PSTDL Ph.D. student advised by **Dr. Paul van Susante** (Assoc. Prof., ME-EM).



## Student Competitions and Team Awards

### **Design Expo - 2024**

Over 1,000 students from Enterprise and Senior Design competed for nearly \$4,000 in cash awards. Esteemed judges from the corporate world, local community, and Michigan Tech evaluated their projects. View team videos and full award results at [mtu.edu/expo](https://mtu.edu/expo).

### **Enterprise Awards:**

#### **1st Place: Velovations Enterprise**

Led by: **Louis Hindman** (ME) and **Caleb Borns** (ME)

Advised by: Steve Lehmann, Biomedical Engineering

Sponsored by: Senger Innovations, General Motors, Cleveland Cliffs, Ripping River Resort, Milwaukee Tool

#### **2nd Place: (tie):**

##### **Aerospace Enterprise**

Led by: **Seth Quayle** (ME), and Dalton Headley (EE).

Advised by: Brad King (Professor, ME-EM)

Sponsored by: Air Force Research Laboratory (AFRL) & NASA

##### **General Expedition Adventure Research (GEAR)**

Led by: **Ryan Bal** (ME) and **Kayley Elmlblad** (ME)

Advised by: Dr. Brett Hamlin, Engineering Fundamentals

Sponsored by: Stormy Kromer-Bob Jacquart

#### **3rd Place: SAE Clean Snowmobile Challenge**

Led by: **Sophie Bollin** (ME) and **Ron Henderson** (ME)

Advised by: **Dr. Jason Blough** (Prof., ME-EM) and **Dr. Scott Miers** (Assoc. Prof., ME-EM)

Sponsors: Milwaukee Tool, SAE, Response Welding, CastleX, Ford, Kohler, Yamaha, BRP, Aramco, Oshkosh, BGF Ind, OctaneInk, Dana, Michigan Tech, GM, Magna Intl, Detroit Diesel, and Gentex.

## Student Competitions and Team

### Awards (cont'd)

#### Enterprise Honorable Mention:

##### Robotic Systems Enterprise

Led by: **Raylan Jiao** (ME) and Ryan Verbrugge (IMX)

Advised by: **Dr. Darrell Robinette**, (Assoc. Prof., ME-EM)

Sponsored by: GM, SAE, Mathworks, Siemens, Ushr, Hexagon, Cepton

#### Rookie Award:

**Nick Miller** (ME), Multiplanetary Innovation Enterprise. Advised by: **Dr. Paul van Susante**.

#### Outstanding Enterprise Leadership:

Mason Mariuzza (ECE), Multiplanetary Innovation Enterprise. Advised by: **Dr. Paul van Susante**.



In June, 16 student researchers from Michigan Tech's PSTDL, led by **Dr. Paul van Susante**, competed in the final round of NASA's Break the Ice Lunar Challenge at Alabama A&M University, the culmination of more than three years of work and four rounds of the competition. Begun in 2020, the Challenge asked competitors to propose robotic systems that can use resources found on the lunar surface in regolith (icy moon dust) to aid astronauts living on the moon. The PSTDL was one of six teams to compete in the finals — three led by universities and three led by industry companies. Read more in [Tech Today](#).



[NASA](#) mentioned Michigan Tech's Planetary Surface Technology Development Lab as one of three teams that "performed exceptionally well" in the excavation portion of the final round of the Break the Ice Lunar Challenge.

Along with the two prize-winning teams, NASA invited the PSTDL to use the thermal vacuum chambers at its Marshall Space Flight Center to continue testing and development.



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The [Keweenaw Report](#) covered Michigan Tech's Planetary Surface Technology Development Lab being invited to NASA's Marshall Space Flight Center to continue testing and developing their rover after competing in the final round of the Break the Ice Lunar Challenge on June 11-12. The invitation was mentioned by [NASA](#) in a June 13 press release.



Michigan Tech's Planetary Surface Technology Development Lab was mentioned by the [Duluth News Tribune](#) in a story about connections between West Duluth's abandoned quarry, lunar science and the Apollo 11 moon mission. The story was picked up by North Dakota's [Forum of Fargo-Moorhead](#).



[FOX Weather](#) mentioned Michigan Tech in a story about NASA's 2024 **Lunabotics** Challenge on May 11-17 in Florida. MTU was among 10 teams that qualified for the competition's final round, held at the Kennedy Space Center. The story was picked up by [Yahoo! News Canada](#).



[The Marshall Star](#), the newsletter of NASA's Marshall Space Flight Center, picked up the agency's [press release](#) about the winners of the final round of the Break the Ice Lunar Challenge. Along with the two prize-winning teams, NASA invited Michigan Tech's Planetary Surface Technology Development Lab to use the thermal vacuum chambers at the Marshall Space Flight Center to continue testing and developing their rover.



The Great Lakes Intercollegiate Athletic Conference (GLIAC) has announced the GLIAC All-Academic and All-Academic Excellence Teams for the 2023-24 academic year. In total, 174 student-athletes from Michigan Tech were tabbed to the Academic Excellence and All-Academic teams.

Criteria states that the student-athlete must be an active member on the roster at the end of the season, not a freshman or a first-year transfer student. GLIAC All-Academic teams are comprised of those student-athletes that meet the criteria and carry a cumulative grade point average (GPA) of 3.0-3.49.

GLIAC Academic Excellence teams are comprised of student-athletes that have a cumulative GPA of 3.50-4.0.

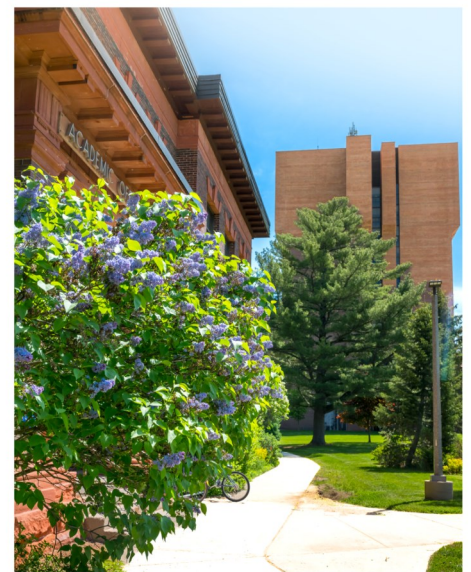
### FOOTBALL

**Dante Basanese** (sr., EME), 3.82, Iron Mountain, Mich. / Iron Mountain

**James Daanen** (MBA student / MSME '23), 3.94, De Pere, Wis. / West De Pere

**Nathan Vereeke** (jr, EME), 3.58, Zeeland, Mich. / Zeeland

AA - **Chase Ekonen** (sr., EME), 3.29, Hartland, Mich. / Hartland





## Alumni & Friends, News, Accomplishments & Awards

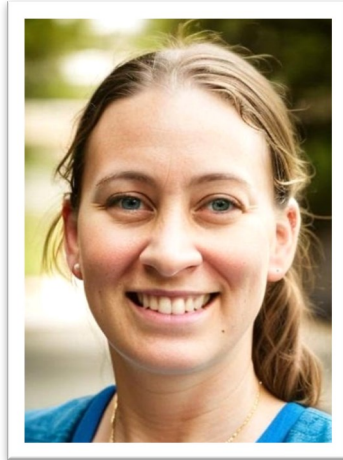
**Dr. Andrew Barnard** (BSME '02, MSME '04) has been appointed Michigan Technological University's new [Vice President for Research](#), effective July 1, following an extensive national search chaired by Provost Andrew Storer. Barnard, currently a professor and director of the Graduate Program in Acoustics at Penn State University, will succeed Dave Reed, who is retiring after nearly three decades of leadership. Under Reed, Michigan Tech's research expenditures tripled, reaching a record \$103.8 million in FY 2023. Barnard, a former ME-EM associate professor at Michigan Tech and recipient of the 2019 Distinguished Teaching Award, expressed his enthusiasm for returning to the university and continuing its trajectory of research growth. Barnard holds a Ph.D. in Acoustics from Penn State and is certified by the Institute for Noise Control Engineering and as a LabVIEW developer. His research interests include thermoacoustic thin-film loudspeakers, industrial noise control, underwater noise control methods, and maritime autonomous vehicles. [ABC 10](#) and the [Keweenaw Report](#) covered Michigan Tech's announcement in [Tech Today](#).



**Emi Colman** (BSME '21) and **Jesse Olson** (BSME/BSEE '17) were quoted in a story by the [Air Force Research Laboratory](#), which announced the university participants for the second year of its Mission Concept Program. This program focuses on advancing skills in early satellite mission design through mentorship and guidance from space professionals. Colman is the deputy program manager of the University Nanosatellite Program in the AFRL's Space Vehicles Directorate, while Olson is a former manager of the UNP. The story, mentioning Michigan Tech, was picked up by the [Los Alamos Daily Post](#).



**Andrea (Walvatne) Falasco** (BSME '12), a lead mechanical engineer at Kimberly-Clark, has been honored as a Michigan Technological University [Outstanding Young Alumni](#) for 2024.



This award is given annually to alumni under the age of 35 who have made significant achievements in their careers. It acknowledges individuals who have attained notable positions or distinctions shortly after graduation. The 2024 Alumni Awards recipients will be celebrated during the Awards Ceremony over Reunion Weekend in August. For more details, visit Andrea's [profile page](#) on Michigan Tech's Alumni and Friends webpage.



**Austin Gongs** (BSME '18) and **Nathan Ackerman** (BSME '18) were mentioned by [Michigan Economic Development Corporation](#) in a story about Chicken Trumper Ultralight Gear. The Hancock business has been named a SmartZone Best Small Business by the [Michigan Celebrates Small Business](#) awards program and the Michigan Economic Development Corporation. Chicken Trumper's story was featured in the [2024 Michigan Tech Magazine](#).



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**Brig. Gen. Mitchell Johnson** (BSME '97) was announced as the North Dakota National Guard's next leader, in a story picked up by [Stars and Stripes](#) from the [Bismarck Tribune](#). Johnson will serve as the North Dakota National Guard's next adjutant general and director of the Department of Emergency Services starting Sept. 15. Previously, he commanded the Fargo-based 119th Wing from March 2021 to January 2023, overseeing around 1,200 personnel, and has held various command and flying roles since 1998. He has logged over 5,000 flight hours, including more than 1,000 in combat, and served overseas in six deployments.



**Steven Senczyszyn** (MSME '18) and **Kathryn Summersett** won 2nd place at the Art in Silico 2024 Exhibition, a juried art show hosted this April by Michigan Tech's ICC in April. Their piece "Tonal Eclipse of the Art: In Silico Polyphonic Exploration with Carbon Nanotubes" is an "Audio exploration of overtone singing synthesized with carbon nanotube speakers." Listen in on the [Art in Silica website](#).



**Jacob Sorter** (BSEE and BSECE '19, MBA '20) was mentioned in an [UP-word](#) story highlighting SwimSmart, a beach safety warning system company he co-founded with his faculty advisor, **Andrew Barnard** (BSME '02, MSME '04 ME-EM). SwimSmart was the subject of a 2021 [Michigan Tech News](#) story.



**Martha Sullivan** (BSME '80, Ph.D. ME-EM) was named [interim president and CEO of Sensata Technologies](#), effective April 30. Sensata's Board of Directors has established a CEO Search Committee to identify a new permanent CEO. This announcement was covered by [Business Wire](#) and picked up by [Benzinga](#), both of which mentioned Michigan Tech in their stories.



### Contracts & Grants

**Blough, Jason** (PI, Professor, ME-EM), **James DeClerck** (co-PI, Professor of Practice, ME-EM), and **Cora Taylor** (Ph.D. candidate, ME-EM); “Simulation Methods for Optimal Fixture Design and Prediction”; sponsor: Honeywell Federal Manufacturing and Technologies LLC; total award: \$107,000.

**Long, Fei** (PI, Assistant Professor, ME-EM); **Ezra Bar-Ziv** (co-PI, Professor, ME-EM); “Evaluating Mid-Infrared (MIR) NLIR Technology and Machine Learning (ML) for Rapid Online Determination of Used Plastics on a Conveyor Belt”; sponsor: SABIC Global Technologies BV; total award: \$275,000.

**Masoud, Hassan** (PI, Associate Professor, ME-EM); “Colloidal Transport, Self-Assembly, and Deposition in Evaporating Droplets”; sponsor: National Science Foundation (NSF); total award: \$347,379.

**Naber, Jeffrey** (PI, Professor, ME-EM/APS Labs); “Investigation of Spray and Combustion Characteristics from Injectors with Heavy Deposits”; sponsor: ExxonMobil Technology and Engineering Co; total award: \$192,080.

**Odegard, Gregory** (PI, Professor, ME-EM/MARC); “Computationally-Driven Next Generation Carbon-Carbon Composite Material Development”; sponsor: US Dept of Defense/Air Force/Air Force Research Laboratory (AFRL); total award: \$4,438,800.



### University News/Awards

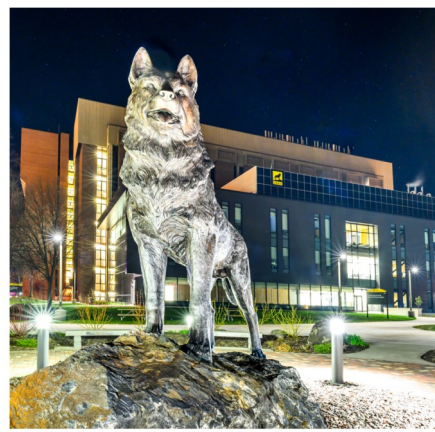
Michigan Tech has been recognized as one of the nation’s best colleges for students seeking a great education with excellent career preparation.

The Princeton Review named Michigan Tech as one of its Best Value Colleges for 2024 on June 20. Among the nation’s public colleges and universities, Michigan Tech was named No. 2 on the list of Best Schools for Internships, No. 9 for Best Career Placement and No. 18 for Best Schools for Financial Aid. In the Best Value Colleges category, solely based on return on investment, or ROI, Michigan Tech was ranked No. 33.

In Tech's profile, the company’s editors praised the University for having an “atmosphere that nurtures learning” and for how MTU “puts students first when it comes to their learning experience by providing hands-on opportunities and pathways for career development and professional advancement.” Learn more about the rankings in the [Michigan Tech News](#).

After more than five years of planning and two years of construction, Michigan Tech announces the completion of the H-STEM Engineering and Health Technologies Complex ([H-STEM Complex](#)). Find out more about the complex in the [Michigan Tech News](#).

The [Keweenaw Report](#) picked up Michigan Tech Facilities Management’s construction update on East Hall, as published in [Tech Today](#). Click [here](#) for a virtual tour.



Blizzard, standing guard in front of Michigan Tech’s new H-STEM complex.

[MLive](#) mentioned Michigan Tech in a story breaking down where college-bound high-schoolers from the Class of 2023 chose to enroll and pursue their degree. Of the 53,262 high school graduates who started college in fall 2023, 883 became first-year Huskies.

[WLUC TV6](#) quoted Michigan Tech Summer Youth Programs participants Lance Neigh and Cora Schneider in a story about an SYP outing to McLain State Park on Sunday, June 23.

[AUTO Connected Car News](#) mentioned Michigan Tech as a key demonstrator in the American Center for Mobility’s (ACM) Demo Days, held May 8-9 in Ypsilanti, Michigan. The event showcased the latest advancements in safe, sustainable, and secure mobility technologies, including innovations in cybersecurity, ADAS, CAV, and electrification. Michigan Tech’s participation in the ACM event was also mentioned by [Yahoo!Finance](#), [DBusiness](#), and [TechCentury.com](#).



## University News/Awards

The [Keweenaw Report](#) announced the appointment of Dr. Michelle Scherer as the new dean of the Michigan Tech's College of Engineering (COE), effective July 1.



Dr. Scherer was selected after a national search narrowed the field to four outstanding finalists. She was a professor and former chair in the Department of Civil and Environmental Engineering at the University of Iowa, and the Director of the College of Engineering Hanson Center for Communication. Dr. Scherer holds a Ph.D. in Environmental Science and Engineering from the Oregon Graduate Institute, an M.S. in Civil and Environmental Engineering from the University of Connecticut, and a B.S. in Systems Engineering from the University of Virginia.

The [Daily Mining Gazette](#) picked up Michigan Tech's announcement of Scott Wagner (MMET) as MTU's next faculty athletics representative. The story ran June 18 in [Tech Today](#).

Michigan Tech's Provost Andrew Storer was quoted by [DBusiness](#) in a story about the incorporation of educational software PebblePad into Michigan Tech's Essential Education curriculum. The story was picked up from [PR Newswire](#).

[Great Lakes Now](#) picked up the June 21 [Points North](#) podcast episode featuring Gary Campbell (COB). The episode, titled "Copper Country's Conundrum," discussed attitudes toward and potential economic and environmental impacts of the Copperwood Mine project, which borders Lake Superior and the Porcupine Mountains Wilderness State Park in Gogebic County. Noel Urban (CEGE) was quoted in an image caption accompanying the episode transcript.



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[WOOD TV8](#) in Grand Rapids, mentioned Michigan Tech in a story about a record number of applications the University of Michigan received for fall 2024. MTU was named as one of only three public universities in Michigan — along with U-M and Michigan State University — where enrollment has increased in recent years. The story was picked up by [Yahoo! News](#).

[WLUC TV6](#) aired a preview of Michigan Tech's commencement exercises, held April 26 for master's and Ph.D. recipients, and April 27 for bachelor's recipients. The TV6 story also provided a link to the official preview on [Michigan Tech News](#).

## Summer Reading

The 2024 [Michigan Tech Magazine](#): "Research in Focus" trains a spotlight on Michigan Tech researchers who are pushing the boundaries between scientific disciplines and harnessing the full spectrum of knowledge across campus.

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## Senior Capstone Design Update - Leader Development Series

Senior engineers are often too busy to be the primary point of contact for a senior capstone design (SCD) project. Younger engineers, hungry for professional development opportunities, can be ideal for this role. Position a "top-performing, high-potential" young engineer as the primary contact and also plug them into our capstone-coordinated Leader Development Series (LDS), a weekly engagement that groups them with 3-5 peers for guided read-meet-reflect sessions.

Contact Dr. Bill Endres, who leads both the SCD Program and the LDS, for more information.

*Experiential knowledge is the amplifier of factual knowledge.*

From: *A Game Against Reality: Engineering Practice and Professionalism in a Physical World Inhabited by Humans*  
by William J. Endres, Program Director (publication forthcoming)

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