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ME-EM eNewsBrief, June 2019

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ME-EM

Michigan Tech eNewsBrief Vol. 15 | Issue 2 | JUNE 2019

Greetings from Dr. William (Bill) Predebon, J.S. Endowed Department Chair and Professor, Department of Mechanical Engineering - Engineering Mechanics at Michigan Tech. For the latest news and info about our faculty, students and staff, please visit our website at www.mtu.edu/mechanical. Visit us on Facebook, [MEEM](#).

Upcoming Events

ME-EM Alumni Reunion Scholarship Cruise - Thursday, August 1.

Loosen up and unwind aboard the [Ranger III](#) for a three-hour tour on the beautiful Keweenaw Waterway. Boarding starts at 12:30 pm and departure is at 1:00. We return to the dock at 3:30 with plenty of time before the pasty picnic at 5:00. The Bonfire Grill will cater with an amazing array of appetizers, sodas, beer, and wine provided by the ME-EM department, and several professors and students will be aboard to present and demonstrate their research. Tickets for the cruise are \$50 for adults and \$35 for kids 12 and under. *\$20 of each ticket will be your donation to the ME-EM department Alumni Scholarship Fund.* Register online [here](#) or contact Alumni Relations at 906-487-2400.



ME-EM Alumni Reunion Open House and Research Lab Tours

Friday, August 2. Meet with department chair, Dr. Bill Predebon, at 1:30 pm in the lobby of the R.L. Smith (MEEM) building for a guided tour of the ME-EM department research labs. The Lagina Family Student Success Center (MEEM 201) will have refreshments for the Open House at 2:30 pm.

Past Events

In orbit at last - Oculus-ASR rides the Falcon Heavy into space

The Oculus-ASR nanosatellite was developed and built by hundreds of MTU Aerospace Enterprise students, so it's a no brainer that a great number of them gathered to meet at the Cape for the early morning launch and the various gatherings and celebrations associated with it. This Enterprise program, advised by Dr. Brad King (prof, ME-EM), has trained many for careers in the aerospace industry.

As part of the Air Force Research Laboratory's University nanosatellite Program, Oculus was designed and built to provide calibration opportunities for ground-based observers attempting to determine spacecraft attitude and configuration using unresolved optical imagery. It successfully launched aboard the SpaceX Falcon Heavy from Cape Canaveral, Florida at 2:30 am on Tuesday, June 25. Read all about it in the [Daily Mining Gazette](#).

| IN THIS ISSUE: | |
|---|---|
| • Upcoming Events | 1 |
| • Past Events | |
| • Faculty Promotions | 2 |
| • ME-EM Dept Chair Travel | |
| • ME-EM Staff Years of Service | |
| • Alumni & Friends News, Accomplishments & Awards | 3 |
| • ME-EM Faculty/Staff Awards/Accomplishments | 4 |
| • Current Contracts & Grants | 5 |
| • ME-EM Dept Accomplishments | |
| • ME-EM Dept Accomplishments | 6 |
| • University News & Awards | |
| • Student Accomplishments & Awards | 7 |
| • Student Competitions & Team Awards | |
| • Student Competitions & Team Awards (cont.) | 8 |
| • Capstone Corner | |



MTU Aerospace Enterprise personnel, past and present, gathered in Cape Canaveral on June 24, 2019 to celebrate the impending launch of the "Oculus-ASR" nanosatellite.

Faculty Promotions

At its regular meeting on Friday, May 3, 2019 the Board of Trustees promoted the following ME-EM faculty members:



Dr. Yunchul Ra was promoted from associate professor without tenure to associate professor with tenure. Dr. Ra's research strengths lie in computational research on multi-scale, multi-phase reacting flows and combustion under high-pressure and high-temperature environment. In his pursuit of these research areas, he has been engaged in the development of advanced combustion methods, ignition and flame propagation models, engine combustion CFD codes, chemical kinetics, emissions models, spray physics models, alternative fuels, fuel assessment methods, and high performance computing method. Dr. Ra is an internationally known leader in the combustion and internal combustion engine communities, particularly in multi-component spray combustion modeling, reaction chemistry modeling, gasoline compression ignition engine, and combustion CFD codes.



Dr. Lucia Gauchia has been promoted from assistant professor without tenure to associate professor with tenure. Dr. Gauchia has a dual appointment in electrical engineering and mechanical engineering and is the Richard and Elizabeth Henes Endowed Associate Professor of Energy Storage Systems. Her creative and in-depth interdisciplinary research in energy storage won her a 2017 NSF early career award of \$500,000 that covers five years of research.

Dr. Gauchia's research interests include the testing, modeling and energy management of energy storage systems for microgrid and electrical vehicle applications. She is particularly interested in the integration of energy storage for microgrids, its selection and control depending on the energy storage technology and microgrid needs.



Dr. Andrew R. Barnard was promoted from assistant professor without tenure to associate professor with tenure. Dr. Barnard is board certified by the Institute for Noise Control Engineering (2012-Present), a Certified LabVIEW Developer (2013-Present), and was selected for the University National Oceanographic Laboratory System (UNLOS) Chief Scientist Training Cruise in 2016. Dr. Barnard was also recently appointed Director of the Great Lakes Research Center. Dr. Barnard collaborates with the Office of Naval Research, the National Science Foundation, and industry clients. He is the advisor for the SENSE Enterprise, which is engaged in developing a low-cost water rescue vehicle and includes partnerships with the Keweenaw Bay Indian Community and the Great Lakes Water Safety Consortium.



Dr. John E. Beard has been granted professor emeritus status. He will continue to work with his students and the department as a research professor.



Dr. Wayne Weaver has transferred to the ME-EM department from ECE to continue his research with our faculty. Dr. Weaver was the past co-Director and now current Director of the Center for Agile and Interconnect Microgrids (AIM). Dr. Weaver has been working with the ME-EM faculty for many years through his research and is a very productive and outstanding researcher, and very good teacher.



ME-EM Department Chair Travel

When traveling for the department, Dr. Predebon enjoys visiting with ME alumni to hear stories from their time at Tech and how their education guided their career path. Bill also hopes to gather feedback on our current programs. Please let us know if you would be available for a visit when he is in your area. Contact Karen Bess at (906) 487-2911.

- ◆ **Seattle WA - August 18** - Dr. Richard J. Robbins (BSME '56) Celebration of Life
- ◆ **Shanghai, China - October 28** - 2019 International Conference on Mechanical Engineering Education, held by Chinese Mechanical Engineering Society (CMES), American Society of Mechanical Engineers (ASME) and Institution of Mechanical Engineers (IMEchE).

ME-EM Staff Honored for Years of Service

- ◆ **Steve Lehmann**, Research Engineer - 5 years
- ◆ **Marlene Lappeus**, Assistant Director, Research and Graduate On-line Program - 15 years
- ◆ **Marty Toth**, Training Specialist Supervisor - 20 years



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Alumni & Friends News, Accomplishments & Awards

Brett Belan ('97) made news in [Ashland, Oregon](#), for selling an electric solar-powered home-on-wheels that he and his wife, Kira, engineered.



Ken Engquist ('93) was the subject of the article "First Mining Announces Appointment of New Chief Operating Officer," which ran in multiple media outlets including the [Dallas Sun](#). Ken has been appointed the new chief operating officer of First Mining Gold Corp. based out of Vancouver, British Columbia.



Fred Koerschner ('81) and Lou Anne Koerschner were selected as the recipients of the 2019 Michigan Tech Alumni & Friends "Outstanding Service" alumni award. Lou Anne is a 1981 graduate of Chemical Engineering. Read more about them [here](#).



Karl LaPeer ('85) and Christine LaPeer ('85 BSMT) were selected as the recipients of the 2019 Michigan Tech Alumni & Friends "Humanitarian Award", to be recognized for their commitment to improving the lives of others. Read more about them [here](#).

Karl E. LaPeer and his company, Peninsula Capital Partners, received the ACG Detroit 2018 [All Star Dealmaker of the Year](#) for its overall deal activity in 2018 which included four new platform investments, seven add-on investments to existing platforms, and six exits from existing investments.



Karl LaPeer speaking at the 2019 ACG M&A All-Stars Detroit Award Ceremony held in April, 2019.

Reagan May ('16) [made headlines](#) for returning to "weekly racing at Wisconsin International Roadway after an 11-year absence."



Mike Olosky's ('91) has taken a new position as [Henkel's Regional President in North America](#).



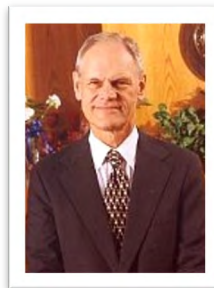
Craig Allen Pollock ('80), [received a Lifetime Achievement Award](#) for his work in the automotive and manufacturing industries.



Denise M. Rizzo ('14) made [national news](#) for receiving SAE International's Rodica Baranescu Award for Technical and Leadership Excellence for her technical contributions to industry and her key leadership achievements.



Dr. Richard J. (Dick) Robbins ('56) passed away on May 30. After receiving his BSME degree from Tech, Dick joined the family business, the Robbins Company—a world leader in underground mechanical excavation equipment for tunnels, mines, and shafts. In 1991 he was elected to the National Academy of Engineering, one of the highest distinctions accorded an engineer. Dr. Robbins was a great friend to the university. His [obituary](#) ran in the Seattle Times.



Andrew Rose ('19) made news at the [Green Bay Press Gazette](#) for accepting a job with NASA and being a crazy smart Husky.



The American Institute of Mining, Metallurgical and Petroleum Engineers interviewed former MTU President, and our ME-EM building's namesake, **Dr. Ray Smith**. The video has been included in Engineering and Technology History Wiki's Oral History video collection. Watch the [interview](#).



Ben Larson, Joe Kaplan and Bill Predebon
Joe Kaplan ('84), Senior Staff Engineer-Mechanical Analysis at Lockheed Martin, stopped by early this spring hoping to recruit some of our students for open positions in Orlando.



Oskar Strojny ('14) joined the New Hampton Metal Fab team in New Hampton, IA, as a Mechanical Engineer. Oskar was previously a [@PeaceCorps](#) volunteer serving in Namibia as a teacher.



Qiong Sun ('95) now vice president of global electrification business, e-systems at Lear Corp, was named a [Notable Women in STEM by Crain's Detroit Business](#).



Sigrid Weinmann (prof emerita, HU), (widow of former ME chair 1993-97 **Klaus Weinmann**) was the subject of the article "Year after accident, Oakland senior's recovery miraculous," in the [East Bay Times](#).



Dr. Dana Johnson (prof emerita, SBE) recently published the article, "Resources and Future Availability of Agricultural Biomass for Energy Use in Beijing," in the journal [Energies](#). Her coauthors include alumnus **Fengli Zhang** ('14), now of China University of Petroleum (CUP), and other authors from CUP.



We are excited to announce that [Caresoft Global Inc.](#) won the 2019 Automotive News' [PACE award](#) in April at a special event in Detroit. Caresoft Global chose MTU as the first university to receive its ground-breaking automotive benchmarking technology to provide our students with a unique opportunity to explore an advanced vehicle in virtual reality.

ME-EM Faculty/Staff Awards/ Accomplishments

Dr. Andrew Barnard (assistant professor) has been selected as the recipient of the 2019 Michigan Tech [Distinguished Teaching Award](#) in the Assistant Professor, Professor of Practice, and Lecturer category. Dr. Barnard will receive a \$2,500 check and a plaque from President Koubek in the 2019 fall semester.

Michigan Tech's partnership with Michigan Translocational Research and Commercialization program (MTRAC) is highlighted in a [Daily Mining Gazette](#) article; past MTRAC funding recipient **Andrew Barnard** was part of the Michigan Tech team that reviewed eight applications for the MTRAC program.

Dr. Nancy Barr (professor of practice), an alumna of the Rhetoric, Theory and Culture program at Michigan Tech, conducted a workshop on academic administrative positions, combining her experience in her current position and also her knowledge about other RTC graduates in administrative positions.

Dr. James De Clerck (prof. of practice) received the Student Organization Advisor of the Year award at the 25th Annual Student Leadership Awards Banquet.

Dr. Guy Meadows (research professor) did a spot on [Michigan Public Radio](#) speaking about autonomous vessels and what we can expect from "smart ships" in the future. Also, he was quoted in a [The Weather Channel](#) news story and in a [Traverse City Record Eagle](#) article announcing a coastal dynamics talk where he joined several experts to provide a broad overview of how changes in climate and Great Lakes coastal dynamics impact communities. Dr. Meadows was also quoted in the [AP News](#) article "Great Lakes water levels surge, some record highs predicted."

Dr. Cam Hadden (lecturer) was awarded the 2019 Mechanical Engineering Teacher of the Year Award at the Senior Recognition Banquet and Order of the Engineer Ceremony on April 23 by the ME Student Advisory Council. The other finalists were: **Drs. Aneet Narendranath** and **Paul Van Susante** (senior lecturers).

The Innovation Center for Entrepreneurship hosted its second Husky Innovate Speaker Series during which **Dr. Brad King** (professor) talked about the "small satellite revolution" and how advances in technology, such as those made by his company "[Orbion Space Technology](#)" have disrupted the space industry.

Michigan Tech Institute of Computing and Cybersystems (ICC) researchers Zhaohui Wang (ECE) and **Dr. Nina Mahmoudian**, (associate professor) saw an opportunity to combine their areas of expertise in underwater acoustic communications and low-cost marine robotics and AUVs. Read the full story on the [ICC website](#) about their collaboration, funded by a \$50K seed grant from ECE alumnus Paul Williams '61.

Michigan Tech, **Dr. Jeff Naber** (professor), **Chris Morgan** (Mobile Lab operations manager), and the MTU APS Labs received coverage in a [TV6 spot](#) about the Mobile Lab's trip to the American Center for Mobility (ACM) in Ypsilanti, MI in May.

Chris Morgan, Michigan Tech and the APS mobile lab were mentioned in an article in [Automotive Design & Production](#).

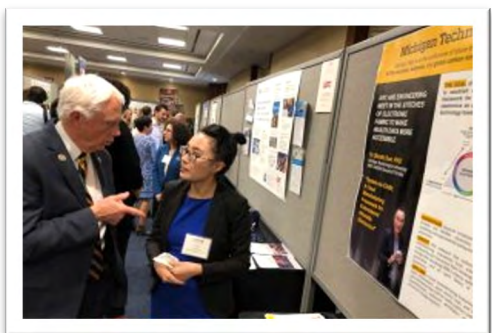
Dr. Stephen Morse (assistant professor, CEE and ME-EM) was awarded an American Society for Testing and Materials (ASTM) International Committee [Award of Appreciation](#) for his outstanding contributions to the Standard Practice for Determining Load Resistance of Glass in Buildings (E1300) and the Subcommittee (E06.52) on Glass Use in Buildings.

Dr. Gregory M. Odegard (professor) was elected a fellow of ASME in recognition of his significant impact and outstanding contributions in the field of composite materials research through the pioneering of computational modeling techniques to predict the influence of molecular structure on bulk-level properties of composite materials, as announced on the [ME-EM blog](#).

Dr. Odegard was also recognized for being principal investigator of a multidisciplinary team of faculty assisting NASA, as noted in an article on [I-Connect007](#).

Michigan Tech made the [University of Georgia News](#) for a collaborative research project with the U of GA and Cummins in search of a cleaner, more efficient combustion Engine. **Drs. Mahdi Shahbakhti** (associate professor) and **Jeff Naber** (professor) are co-PIs on the project.

Dr. Ye "Sarah" Sun (assistant professor) demonstrated her recent NSF CAREER Award project "System-on-Cloth: A Cloud Manufacturing Framework for Embroidered Wearable Electronics" at the 25th annual Council for National Science Funding Capitol Hill Exposition. Read the article in [Michigan Tech News](#).



Congressman Jack Bergman, of Michigan's 1st District and home to Michigan Tech, discusses research with Dr. Ye "Sarah" Sun.

Dr. Paul van Susante (senior lecturer) presented during the Moon Development & Exploration track at the [International Space Development Conference](#) in Arlington, VA and the [Space Resources Roundtable](#) in Golden, CO.

Dr. van Susante was quoted in the story "Moonville" as part of the Smithsonian Air & Space Magazine 50th anniversary collector's edition "Apollo + The New Explorers" related to lunar dust and testing of lunar systems in dusty thermal vacuum chambers.

Dr. Sheryl Sorby (professor emerita) has been elected president-elect of the American Society for Engineering Education ([ASEE](#)), a term she will hold one year before assuming the presidency in 2020.

Current Contracts & Grants

Atkinson, Bill (PI, ME-EM) and **Naber, Jeffrey** and **Schmidt, Henry** (co-PIs, ME-EM); “Investigation of Droplet Size of PFI Injectors”; sponsor: Nostrum Energy, LLC; total award: \$6,253.

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**Barnard, Andrew** (PI, ME-EM); “Hard Drive Noise Testing”; sponsor Johnson Controls, Inc.; total award: \$2,042.

**Barnard, Andrew** (PI, ME-EM); “Vibration Acceptance Testing”; sponsor Orbion Space Technology, Inc.; total award: \$1,937.

**Barnard, Andrew** (co-PI, ME-EM), **Timothy Havens** (PI, ECC); “NPT-03/04: Localization, Tracking, and Classification of On-Ice and Underwater Noise Sources Using Machine Learning”; sponsor Naval Surface Warfare Center; total award: \$299,533.

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Barr, Nancy (co-PI, ME-EM) **Marika Seigel** (PI, Humanities), **Mary Raber** (co-PI, PHC), **Abraham Romney** and **Oren Abeles** (co-PI's, Humanities) "Human-Centered Engineering Initiative"; sponsor: National Endowment for the Humanities; total award: \$34,909.

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**Miers, Scott** (PI, ME-EM); “Alternative Fuels Research with Argonne National Laboratory”; sponsor: Argonne National Laboratory; total award: \$92,219.

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Morgan, Chris (PI, ME-EM), **Jeremy Worm** (co-PI, ME-EM); “Delivery of Hands-On Professional Development Modules”; sponsor: Dana Inc.; total award: \$47,700.

Morgan, Chris (PI, ME-EM), **Darrell Robinette**, **Jeremy Worm** (co-PIs, ME-EM); “Delivery of Hands-On Professional Development Modules in Electrified Propulsion Systems”; sponsor: AVL Powertrain Engineering Inc; total award: \$8,577.

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**Naber, Jeffrey** (PI, ME-EM), **Seong-Young Lee**, **Youngchul Ra**, **Henry Schmidt**, **Mahdi Shahbakhti**, **Jeremy Worm** (co-PIs, ME-EM); “Co-optimized PPCI-SI Engine System Demonstrator to Improve Fuel Economy while Meeting LEVIII Emissions”; sponsor: Hyundai-Kia American Technical Center (HATCI); total award: \$899,372.

**Naber, Jeffrey** (PI, ME-EM), **Tucker Alsup**, and **Chris Morgan** (co-PIs, ME-EM); “Hitachi Active Thermal Management Project”; sponsor: Hitachi Automotive Systems Americas Inc.; total award: \$14,000.

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Naber, Jeffrey (PI, ME-EM), **Tucker Alsup**, and **Chris Morgan** (co-PIs, ME-EM); “Hitachi Active Thermal Management Project Phase II”; sponsor: Hitachi America Ltd; total award: \$35,000.

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**Naber, Jeffrey** (PI, ME-EM); “Nostrum Condensine Concept”; sponsor: Nostrum Energy, LLC; total award: \$15,000.

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Naber, Jeffrey (PI, ME-EM), **Tucker Alsup**, **Paul Dice**, **Joel Duncan** (co-PIs, ME-EM); “Nostrum Stationary Power with NG/ Diesel Pilot Injection; sponsor: Nostrum Energy LLC; total award: \$150,000.

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**Ra, Youngchul** (PI, ME-EM); “Investigation on Enhancement of Combustion Performance and Efficiency of GCI and Mixed Mode Combustion in a 6-Stroke-Cycle Engine CVVD Technique”; sponsor: Hyundai Motor Company; total award: \$160,000.

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Schmidt, Henry (PI, ME-EM), **Bill Atkinson**, **Jeffrey Naber** (co-PIs, ME-EM); “Investigation of Injection, Spray Characteristic”; sponsor: Aramco Services Company; total award: \$124,636.

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**Schmidt, Henry** (PI, ME-EM), **Bill Atkinson**, **Jeffrey Naber** (co-PIs, ME-EM); “Investigation of Injection Spray Opening and Closing Characteristics for HD Diesel Injector”; sponsor: PACCAR, Inc.; total award: \$4,717.

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Worm, Jeremy (PI, ME-EM), **Jeffrey Naber** (co-PI, ME-EM); “Nostrum SI DI Methanol/ Water Injection Optimization”; sponsor: Nostrum Energy LLC; total award: \$100,000.

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**Worm, Jeremy** (PI, ME-EM), **Tucker Alsup**, **Joel Duncan** (co-PI, ME-EM); “Nostrum High Brake Mean Effective Pressure”; sponsor: Nostrum Energy LLC; total award: \$65,947.

## ME-EM Dept Accomplishments

The ME-EM department graduated the largest number of PhDs in a single semester in our history (16), and one of the largest BSME classes (204) at the 2019 spring commencement ceremony.

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During Michigan Tech’s “Day of Giving Challenge” held on April 11, the department received 139 donations, totaling just over \$36,000. It’s obvious that we have great alumni and friends who really value their education and want to give back. We thank you for your support!

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The accredited degree program in Mechanical Engineering at MTU has been ranked a “[Best Value for the Money](#)” in the annual nationwide ranking of US colleges and universities by College Factual. Tech is also rated the number one best value school in Michigan for ME majors. College Factual ranked mechanical engineering at MTU #26 out of 268 programs at colleges and universities in the US reviewed as “[Best for the Money](#).” This places MTU in the Top 10% of all such programs in the country reviewed by College Factual for value. Additionally, Michigan Tech’s mechanical engineering program ranked #1 out of 12 colleges in Michigan for value. This makes Michigan Tech the best value school in the state for ME majors. MTU has achieved this ranking two years in a row.



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ME-EM Dept Accomplishments

MTU's Advanced Motorsports Enterprise was featured in the article, "[Saudi Arabian Oil Company: Advancing engines and fuels at SAE International World Congress](#)," in the Gulf News Journal. The article focused on Aramco Research Center-Detroit's sponsorship of Tech's Advanced Motorsports Enterprise.



This May, experts from MTU showcased some of the newest AV technologies — from connected car communications to infrastructure — and how they impact and improve fuel economy at one of the state's premier testing grounds, the American Center for Mobility (in Ypsilanti). Read in the [PlanetM Mobility Report](#), [mitechnews](#), and in [Michigan Business Network](#).



Students participating in the Women in Automotive Engineering (WIAE) summer youth program at Michigan Tech, sponsored by Dana Incorporated. This program allows these high-school students to explore the automotive industry as a future career.



University News & Awards

Michigan Technological University and the Keweenaw Rocket Range is acknowledged in the article "Rockets' Red Glare" about Michigan's aerospace industry in [DBusiness](#).



[College Census](#) named Michigan Tech one of 50 online colleges with the best Return on Investment (ROI) for 2019.



Michigan Tech ranked No. 2 Best Value College in Michigan by [SmartAsset](#).



Janet Callahan, Dean of the College of Engineering, was listed among "Female Deans and Directors of Engineering Programs in the U.S." in [SWE.org](#).



Michigan Tech hosted 175 middle school and high school students this June for its **summer youth programs**, allowing for hands-on experience in engineering studies. Through the generosity of **Dana Incorporated**, an outstanding group of young women got a sample of college life and the exciting world of automotive engineering at MTU. The [Women in Automotive Engineering program](#) is a competitive scholarship sponsored by Dana Inc. which funds the program. View the [TV6 video](#).



A new partnership between Northwestern Michigan College of Traverse City, Michigan and Michigan Tech was [announced](#). Brett Chouinard '88, COO at Altair.



The Michigan Translational Research and Commercialization (MTRAC) [Advanced Applied Materials Innovation Hub](#) at Michigan Tech is in a story in [Xconomy](#).



[Tech Students Do Well in Cybersecurity Competition](#) - Michigan Tech is ranked among the best teams in a national cybersecurity competition. Michigan Tech is ranked No. 60 of nearly 1,300 institutions competing in the 2019 Governor's Cybersecurity Talent Competition. Tech students also placed third among the 48 schools from Michigan.



Aubrey Woern (sr. ME-EM) and **Joseph McCaslin (ECE)**, in collaboration with graduate student Adam Pringle (MSE) and Dr. Joshua Pearce (professor, MSE/ECE), published "[RepRapable Recyclebot: Open Source 3D Printable Extruder for Converting Plastic to 3-D Printing Filament](#)" in HardwareX. Their research was also featured in the German magazine "[Make](#)".



Michigan Tech was listed among four partners to join the Cooperative Institute for Great Lakes Research's regional consortium. The story was covered by several media outlets including [Crain's Detroit Business](#), [The University Record](#), [UofM's Michigan News](#), [Michigan Tech News](#) and [WLUC TV 6](#).



Congratulations to the ME-EM students whose "[A Day in the Life of a Michigan Tech Student](#)" student videos were recognized in the competition: **Sam Swartzmiller (MS)** silver level; **Andrew Erickson (jr)** and **Emilia Colman (so)** bronze level. Honorable mentions included **Clarice Hill (sr)**, **Liz Bergh (sr)**, **Clark Sprague (jr)** and **Tania Demonte Gonzalez (sr)**.



Michigan Tech researchers studying the Line 5 pipeline were mentioned in [Crain's Detroit Business](#).

Student Accomplishments & Awards

Apurva Baruah (PhD, ME-EM) President of the Graduate Student Government was presented the Award for Exceptional Leadership in Student Government at the 25th Annual Student Leadership Awards.



Incoming student, **John Benz**, was awarded a [Kimberly-Clark scholarship](#) to attend Michigan Tech and major in Mechanical Engineering.



Monica Brechting, (sr, ME-EM) was the selected student speaker at her own graduation. Read or view her "[Love Letter to Michigan Tech](#)" on the MTU Commencement page.



Graduate students **Chong Cao** and **Joe Oncken** (PhDs), who work with researcher **Dr. Bo Chen**, professor, in the [Intelligent Mechatronics and Embedded Systems lab](#), were featured in a Tech Today story about their work developing Simulink models for smart city technology — and show how the models shift into real-life testing. Read the full story on [Unscripted](#).



Incoming student **Connor Christensen** made [Yahoo! Finance News](#) for earning a SME scholarship.



Greta Colford (sr, ME-EM, Alpha Gamma Delta) received the Sorority Woman of the Year Award at the 2019 Design Expo.



Emi Colman and **Elizibeth McVay** (so, ME-EM) were quoted in the article "Their Mission? Win National Student Rocket Contest," in [The Advertiser](#).



Daniel Donovan (sr, ME-EM) president of the Golf Club at Michigan Tech, has qualified to compete in the National College Club Golf Association National Invitational Tournament in Indianapolis. He is the first golf club member at Tech to qualify for the national tournament. Read the [article](#) in Tech Today.



Sunit Girdhar (ME) was awarded a Leo Beranek Student [Medal for Excellence in the Study of Noise Control](#) through the Institute of Noise Control Engineering of the USA by **Dr. Andrew Barnard** (asst prof.). He received the [graduate pewter medal](#) for his work on IIC test method improvement INCE-USA allows universities to award the INCE-USA Beranek Medal for Excellence in Noise Control Engineering.

Cadet **Noah Hart** (jr. ME-EM) of the Air Force ROTC at Michigan Technological University was awarded the [Gold DAR Outstanding Cadet Award](#).



Michigan Tech Nordic skier **Amanda Kautzer** (sr, ME and EBE) has been named an Academic All-American, as selected by the members of the College Sports Information Directors of America (CoSIDA). She was honored on the Google Cloud Academic All-America® Division II Women's At-Large Team. Visit Michigan Tech [Athletics for the full story](#).



Ron Kyllonen (sr, ME-EM) received the 2019 Percy Julian Award at the 2019 Design Expo.



Miles Penhale (PhD, ME-EM) received the 2019 Design Expo Exceptional Student Scholar as nominated by fellow graduate students and the GSG Executive Board.



Kai Zhang (PhD, ME-EM) is the Summer 2019 Recipient of the Graduate School Doctoral Finishing Fellowship.



Congrats to the MTU ME-EM athletes recognized by the GLIAC! All-Academic Team Honors were awarded to: **Jason Bell**, **Robert Beggs**, **Quinn Kasprick**, **Larry Lamb**, **Ben Mahonen**, **Kenny Messina** and **Chase Scheel** (seniors). All-Academic Excellence Honors were awarded to: **John Bailey**, **Noah Dobrzelewski**, **Jon Gietek** and **Emily Vigil** (seniors).



Michigan Technological University

MTU Men's Basketball Team [Award winners](#): **Owen White** (fr, ME-EM) earned the Bob Olson Outstanding Newcomer Award; **Kyle Clow** (jr, ME-EM) was Tech's Scholastic Achievement Award honoree this year. Clow was also selected to the GLIAC All-Academic Excellence Team for his work in the classroom.



11th Annual Graduate Research Colloquium Awards.

ME-EM recipients of the [Outstanding Graduate Student Teaching Award](#) include: **Ahammad Basha Dudekula** (PhD), **Siddharth Bharat Gopujkar** (PhD), **Cameron Hansel** (MS), **Erica Jacobson** (PhD), **Luke Jurmu** (PhD), **Mingyang Li** (PhD), **Si Liu** (MS), **Niranjana Miganakallu** (PhD), **William Pisani** (PhD), **Samantha Swartzmiller** (MS), **Upendra Yadav** (PhD), and **Zhuyong Yang** (PhD).

ME-EM recipients of the [Dean's Award for Outstanding Scholarship](#) include: **Samath Kumar Reddy Boyapally** (MS), **Hui Huang** (PhD), **Xian Li** (PhD), **Miles Penhale** (PhD), **Nikhil Appasaheb Shinde** (MS), **Rahul Jitendra Thakkar** (MS), **Mitchel Timm** (PhD), **Xiucheng Zhu** (PhD).

Student Competitions & Team Awards

Members of Michigan Tech's Enterprise competition teams in Formula I, Supermileage, Baja and Clean Snowmobile visited with eighth-grade students at Houghton Middle School in April. Read [article](#) in TechToday.

Michigan Tech's [Engineering Ambassadors](#) were featured in "Fifth grade students enjoy hands-on learning experience from Michigan Tech," on [WLUC TV6](#).



Five student teams from Michigan Tech traveled to CMU in April to compete in the ninth annual [New Venture Competition](#). Student teams presented business plans and pitches to panels of experienced entrepreneurs. Two ME-EM PhD students participated: **Apurva Baruah** (PhD) for Yooper Ag, and **Ahammad Basha Dudekula** (PhD) for AGTO Autonomous.

Student Competitions & Team Awards (cont.)

Michigan Tech students were acknowledged in a [Pittsburg Post-Gazette story on "world's largest steel tech display"](#) They "designed a Steel Escape Room to resemble the inside of a "pulpit" - a control room usually lodged high in mill." The participating companies, ArcelorMittal, Gerdau and Nucor, "were looking at how to engage with students and get them more interested in steel," said **Ryan Thompson** ('19, BSME) who designed and built the 22-foot mobile trailer last summer.



[Automotive Design and Production](#) wrote about [Michigan Tech's Robotics Systems Enterprise \(RSE\) AutoDrive Challenge Team](#) in their article "Students Driving Autonomous Tech."



John Ruf (jr. BSME) was part of a three student team that won the [2019 iOme Challenge](#) sponsored by the Women's Institute for a Secure Retirement (WISER), a national competition designed to raise awareness among college students about the impact of retirement security on the social and economic well-being of society.

Michigan Tech's Frozen Engineers team was selected to represent the University at the [Make48: College vs. College](#) competition this August in Baltimore, Maryland. Teams are given 48 hours to plan, prototype and pitch an idea for prizes and licensing potential. The top three teams may have an opportunity to license their designs and take their products to market. The Michigan Tech team consisted of Mike Gazdecki (sr. MSE), **Patrick Guyon** (sr. ME-EM and EE) and **Rachel Kolb** (sr. ME-EM) and **Ryan Thompson** (sr. ME-EM). Read the TechToday [article](#).



The Michigan Tech Aerospace Enterprise 2019 Oculus-ASR mission patch, designed by one of our talented undergraduate students and Program Manager of the Michigan Tech Aerospace Enterprise, Marcello Guadagno.



Lift-off of the SpaceX [Falcon Heavy](#) was at 2:30 am on June 25. Missed the launch or want to watch again? Follow the [link](#) to experience it all over again.

CAPSTONE ROZZO

46!

CAPSTONE CORNER

Yes.

We are actively planning for Forty Six new Senior Capstone Design projects this coming year.

Based on registered seniors for fall-2019 and senior-design-ready juniors queuing up for January-2020, we are looking at forty six projects to be underway come Groundhog Day.

That means opportunity for anyone looking to engage with nationally-ranked engineering students and research-active faculty over the course of two 14-week semesters.

Please get in touch for further details and information on the wide range of options and benefits available.

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