

Michigan Technological University

Digital Commons @ Michigan Tech

Department of Mechanical Engineering-Engineering Mechanics eNewsBrief Department of Mechanical Engineering Engineering Mechanics

6-2018

ME-EM eNewsBrief, June 2018

Department of Mechanical Engineering-Engineering Mechanics, Michigan Technological University

Follow this and additional works at: https://digitalcommons.mtu.edu/mechanical-news

Part of the Engineering Mechanics Commons, and the Mechanical Engineering Commons

Recommended Citation

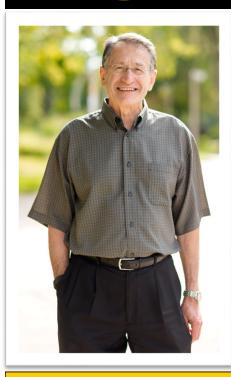
Department of Mechanical Engineering-Engineering Mechanics, Michigan Technological University (2018). ME-EM eNewsBrief, June 2018. *14*(2) Retrieved from: https://digitalcommons.mtu.edu/mechanical-news/6

Follow this and additional works at: https://digitalcommons.mtu.edu/mechanical-news Part of the Engineering Mechanics Commons, and the Mechanical Engineering Commons



Michigan Tech eNewsBrief

Vol. 14 | Issue 2 | JUNE 2018



IN THIS ISSUE:

Upcoming EventsFlash Flood Update	1
• Faculty Promotions	2
 New ME-EM Staff Members Alumni & Friends News, Accomplishments and Awards 	3
 Alumni & Friends News, Accomplishments and Awards Department Accomplishments Capstone Corner 	4
 Student Accomplishments and Awards Student Competitions & Team Awards 	5
 Student Competitions and Team Awards Faculty and Staff Awards and Accomplishments 	6
 Faculty & Staff Awards and Accomplishments University News and Awards 	7

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 2. Loosen up and unwind aboard the <u>Ranger III</u> for a threehour tour on the beautiful Keweenaw Waterway. We'll be boarding at 12:30 pm, departure is at 1:00, and we return to dock at 3:30 with plenty of time to spare before the pasty picnic at 5:00. The Bonfire Grill serves a tempting array of appetizers, beer, wine and soda, provided by the ME-EM department, and several

professors and students will be aboard to present and demonstrate their research.

Due to a rise in the National Park Service cost of passage, tickets are now \$50 for adults and \$35 for kids 12 and under. \$20 of each ticket will be your donation to the MTU Mechanical Engineering -Engineering Mechanics department Alumni Scholarship Fund.

Register online <u>here</u> or contact Alumni Relations at 906-487-2400.

ME-EM Alumni Reunion Open House and Research Lab Tours

Friday, August 3. 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 p.m.

Recovery Underway in Wake of Flash Floods in the UP

Assessment, cleanup and repairs are moving forward at Michigan Technological University in the aftermath of devastating flash floods in the western UP produced by torrential rains.

As much as seven inches of rain fell in the Copper Country between 11 p.m. Saturday and 8 a.m. Sunday. Roadways throughout the area washed out, and homes and businesses were severely damaged or destroyed by mudslides, flooding and cave-ins. University property and grounds were damaged, but there are no reported injuries on campus.

MTU President Glenn Mroz expressed his admiration and appreciation for the Michigan Tech community and the people of Houghton County. "The outpouring of support, resources and offers to help has been humbling and comforting," Mroz says. "It reminds us of what this community is made of grit, determination and heart."



DEPARTMENT OF MECHANICAL ENGINEERING-ENGINEERING MECHANICS MICHIGAN TECHNOLOGICAL UNIVERSITY

Faculty Promotions At its regular meeting on Friday, May 4, 2018 the Board of Trustees promoted the following ME-EM faculty members. These promotions are effective August 20, 2018.



Dr. Bo Chen was promoted from associate professor with tenure to professor with tenure. Dr. Chen is the Dave House Professor in Mechanical Engineering and Electrical Engineering with a split appointment in the ME-EM and ECE departments. Dr. Chen is the Director of the Intelligent Mechatronics and Embedded Systems laboratory and is conducting interdisciplinary research in the areas of mecha-

tronics and embedded systems, agent technology, modeling and control of hybrid electric vehicles, cyber-physical systems, and automation. Her research projects are funded by NSF, DOE, and industrial partners. She received Best Paper Award at 2008 IEE-E/ASMI International Conference on mechatronic and Embedded Systems and Applications. Dr. Chen is currently serving as the Chair of the Technical Committee on Mechatronics and Embedded Systems of IEEE Intelligent Transportation Systems Society, and as the Chair of the Technical Committee on Mechatronic and Embedded Systems and Applications of the ASME Design Engineering Division. She has served as Associate Editor of the IEEE Transactions on Intelligent Transportation Systems, as well as Program Chair, Symposium Chair, and Session Chair for a number of international conferences. Visit her website.

র্জর্জর্জর্জর্জর্জর্জর্জ



Dr. Jaclyn Johnson has been promoted from Lecturer to Senior Lecturer. Dr. Johnson is the Coordinator for Engineering Ambassadors, the faculty advisor for WASME (Women in American Society of Mechanical Engineering). Dr. Johnson received the 2017 ME Teacher of the Year Award based on her outstanding student evaluations as determined by the vote of ME students. Visit her website.

Bernard Family Clock Tower Dedication

located in the heart of campus between the Memorial Union and the MEEM building.

Thursday, August 2, 2018 @ 4:30 p.m.

The clock tower is part of a generous gift from Bill & Ilene Bernard and their family.

A portion of the donation was used to establish the William J. Bernard, Jr. Family Endowed Scholarship Fund to provide support to future Huskies.



Dr. Seong-Young Lee was promoted from associate professor with tenure to professor with tenure. He is the Director of the Combustion Science Exploration Lab (CSEL) and operates two research laboratories focused on the investigation of clean and efficient power generation technology. Sponsors of his research include: DOE, GM, Ford, Nostrum, Pratt & Whitney, AVL, KAUST, and NSF. He has an

active research program in the area of renewable/alternative energy system, plasma-assisted combustion, chemical reaction models, CFD, and advanced laser-based techniques. Dr. Lee received the Research Fellowship at CPRYSSES Center of Excellence, ICARE-CNR, Orleans, France in 2015 and a Distinguished Paper titled "Impact on Soot on Flame Flicker" at the 32nd Int'l Symposium on Combustion, in 2009. He has established the cooperative research work with the Engine Combustion Network (ECN) at Sandia National Lab, Istituto Motori-CNR in Italy, Army Research Laboratory (ARL) and Politecnico di Milano in Italy. Dr. Lee served as Lead Guest Editor of the journal Combustion for the special issue on "Fuel Injection and Combustion" and is currently Honorable Editor of Fluid Mechanics Research International Journal, and Guest Editor of Energies Journal's special issue on "Clean Fuels in Low Temperature Combustion". Visit his website.

র্জর্জর্জর্জর্জর্জর্জর্জ



Dr. Aneet Narendranath has been promoted from Lecturer to Senior Lecturer. Dr. Narendranath is the Engineering Learning Center (ELC) Coordinator, and Coordinator of Engineering Explorations. Dr. Narendranath was a finalist for the 2018 ME Teacher of the Year award. Visit his website.

Dr. Radheshyam Tewari has been promoted from Lecturer to Senior Lecturer. Dr. Tewari is the faculty advisor for the Innovative Global Solutions Enterprise, and Coordinator of the ME-EM Graduate Seminar Series. He received the 2018 ME Teacher of the Year Award based on his outstanding student evaluations as determined by the vote of ME students. Visit his <u>website</u>.







DEPARTMENT OF MECHANICAL ENGINEERING-ENGINEERING MECHANICS MICHIGAN TECHNOLOGICAL UNIVERSITY

New ME-EM Faculty & Staff

We are happy to introduce the newest additions to the ME-EM department's faculty and staff:

Dr. Cameron M. Hadden (Biomed '08, **ME-EM PhD '14**) joins the ME-EM faculty this fall as a Lecturer. Dr. Hadden received his BS in biomedical engineering from MTU in 2008, and his PhD in mechanical engineering from MTU in 2014. Dr. Hadden has worked as a Vehicle Safety Engineer for Toyota Motor Manufacturing and as a Process Optimization Engineer at Boise Paper Company in International Falls, MN.

The department has been fortunate to have him teach a variety of classes as an instructor since 2016. His teaching style focuses on teaching the fundamentals, solving relevant real world problems by hand, and using software to solve more complex applications.

Dr. Steven Ma joins the ME-EM faculty this fall as a Professor of Practice. Dr. Ma received his B.S in Aerospace Engineering from the Beijing University of Aeronautics & Astronautics in 1983, his M.S. in Mechanical Engineering from Beijing Polytechnic University in 1986, and his PhD in Mechanical & Aerospace Engineering with a concentration in Structural Dynamics from State University of New York at Buffalo, Buffalo, NY in 1991. He also received an Executive MBA from Tsinghua University, China in 2011.

Prior to joining Michigan Tech, Dr. Ma served as an adjunct professor at the State University of Texas at Arlington teaching a wide variety of ME courses and introducing students to CAD tools used in industry for modeling and simulation. He has had a 24year career in industry working for Strippit/LVD, Parker Hannifin, Atlas Copco, Caterpillar and Kobelco. He has an extensive background with a rich combination of technical and commercial experience in product and market development of construction, mining, oil & gas and industrial equipment meeting corporate and customer goals. Our students will most definitely benefit from his industrial experience.



Debra Linn has joined the department as an Office Assistant in the main office. She is responsible for reception, payroll, purchasing, and many other things. Prior to taking this position,

Debbie worked on campus in Payroll Services and in the Department of Physics, as well as with the Baraga-Houghton-Keweenaw Child Development Board.



Tucker Alsup joined the APSRC as a permanent Research Assistant Engineer. Tucker provides research support for electronics and instrumentation. He previously worked as

temporary staff in the APS labs while he completed his BSEE degree at MTU in May of 2017.

<u>Alumni & Friends News,</u> <u>Accomplishments & Awards</u>

Dan Bliss (BSME '83), was the subject of the article "<u>Racking Up Those</u> <u>Billable Hours? This Michigan Lawyer</u> <u>Has You Beat</u>," published in The American Lawyer. Dan is an intellectual property lawyer and partner at the Michigan-based law firm Howard and Howard. **Todd Brewer (BSME '00)** authored the story "<u>Bearing Technology Chang-</u> <u>es in the Fluid Handling Industry</u>," in Flow Control. Brewer is an application engineer with <u>NSK</u>.

୶୶୶ୠୠୠୠୠୠୠ

Major Joseph Cannon (BSME '03), an infantry officer with the Michigan Army National Guard, was the keynote speaker at the City of Troy's Memorial Day ceremony. Read the <u>article</u> about his military service in the Troy Times.

Seth DeLand (BSME '08, MSME '10) wrote the article "<u>Filling the Data Sci-</u> entists Gap, Part 3: Challenges and Solutions for the Road



Ahead," in Embedded Computing Design.

Chais Eliason (BSME '14) was featured in the article "Living in the Fast Lane: Eliason, LeDoux Staying Busy Working for NASCAR" in the <u>Duluth</u> <u>News Tribune</u>. Chais is working as lead shock engineer for NASCAR's Hendrick Motorsports.

র্জন্জর্জর্জর্জর্জর্জর্জ

Kimberly Foster (BSME '94) was named dean of Tulane University's School of Science and Engineering. The news was covered by the <u>Times-</u> <u>Picayune</u> and <u>New Orleans City Busi-</u> <u>ness</u>.

Paul Hakamaki (BSME '88), was the subject of the interview "<u>The Im-</u> <u>portance of Strong Supplier Quality</u> <u>Relationships</u>," in Q1 Productions. Hakamaki is the global supplier quality process leader within 3M's Health Care Business Group.

DEPARTMENT OF MECHANICAL ENGINEERING-ENGINEERING MECHANICS MICHIGAN TECHNOLOGICAL UNIVERSITY

(cont.) <u>Alumni & Friends News,</u> <u>Accomplishments & Awards</u>

Husky leads the pit crew! Ever wonder why crew chiefs sometimes call for two tires instead of four during a pit stop? **Greg Ives (BSME '03)** is here to fill you in. #WhyDoYouDoThat

র্জর্জর্জর্জর্জর্জর্জর্জ



Anne Jarvey (BSME '14) was selected as the Envision Greater Fond Du Lac Young Professional of the Month - June 2018. Anne is currently working as a Struc-

tural Test Engineer at Mercury Marine.

୶୶୶୶୶୶୶୶୶୶

Lesile Kilgore (MSME '95) was recognized by SAE in April with the <u>Rodica Baranescu Award for Tech-</u> <u>nical & Leadership Excellence</u>. Ms. Kilgore is Vice President at Thomas Built Buses.

୶୶୶ୠ୶ୠ୶ୠ୶ୠ୶ୠ

Dennis E. Martin (BSME '95) has a new job at Enstrom Helicopter as Director of Sales and Marketing. Note of the new leadership at Enstrom was covered on <u>TV6 news</u>, <u>Airframer</u>, <u>Vertical</u>, <u>Aviationpros</u>. George Rowader (BSME '89), was named vice president and general manager of adjacent business by ODL Inc. His hiring was covered in <u>Door and</u> <u>Window Market Magazine</u>.

୶୶୶୶୶୶୶୶୶

Robert E. Smith (BSME '99), who holds a PhD, MS and BS in mechanical engineering from Michigan Tech, is co-author of "War Game Introduces Early Synthetic Prototyping," published by the US Army. Smith is a research engineer in the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC), Detroit Arsenal. <u>Read</u> the article on the U.S. Army website.

Department Accomplishments

The Advanced Power Systems Labs (APS LABS) drove its semi-truck Mo-

bile Lab down to Fort Worth, TX in May for the O'Reilly 500 to demo autonomous vehicle technology.

Read the full <u>article here</u>.

Michigan Tech's Advanced Motorsports Enterprise was featured in the article, "<u>Saudi Arabian Oil Company:</u> <u>Advancing engines and fuels at SAE</u> <u>International World Congress</u>," in the Gulf News Journal. The article focused on Aramco Research Center-Detroit's sponsorship of Michigan Tech's Advanced Motorsports Enterprise.

Michigan Tech, through the ME-EM department, is one of five universities selected to participate in the National Science Foundation (NSF) Diversity Training Program. The program is called Transforming Engineering Culture to Advance Inclusion and Diversity (TECAID) with a goal to diversify mechanical engineering education, making it more inclusive of women and under-represented minorities. Read the <u>article</u> in the ME-EM News blog.



SCD - 2018Q3



Senior Capstone Design is getting popular. Another large incoming group of students has registered for SCD this coming September and is creating a need for 25 new projects.

Those new projects, along with the 17 started in January, will make for <u>42</u> projects in 2018 !!!

These incoming seniors are looking for a challenge! Seriously, the type of talent, fresh perspective, and analytical acuity typically seen in Michigan Tech senior undergrads is a resource you can easily make use of. What is the opportunity cost for you if you don't? Another 10+ value-added projects left languishing on your whiteboard to-do list? Existing processes that could be made more efficient? Product development put off for another year?

Put that situation right. Get involved with SCD.

We need your participation. You can derive value from SCD projects. Recruitment. Engineering. Process **AND** Product Design. Cost reduction. etcetera... This is a win-win situation, teed up and ready to go.

Get in touch ASAP to have a chat about customizing your own SCD experience.

Bob De Jonge rdejonge@mtu.edu 906-487-2142

DEPARTMENT OF MECHANICAL ENGINEERING-ENGINEERING MECHANICS MICHIGAN TECHNOLOGICAL UNIVERSITY

<u>Student Accomplishments &</u> <u>Awards</u>

Dillon Babcock (jr. ME-EM) was selected as the recipient of the Provost's award for Scholarship at the Student Leadership Awards <u>Ceremony</u> held in April.

র্জর্জর্জর্জর্জর্জর্জর্জ

Tania Demonte Gonzalez (sr. ME-EM) landed a summer internship at Miller Electric in Appleton, WI.

র্জর্জর্জর্জর্জর্জর্জর্জ

Jacob Hubert (sr. ME-EM) was interviewed for an article on the NASA website about his internship at NASA's Design Visualization Group. Read the full article <u>here.</u>

The Michigan Tech Nordic ski team awards were announced at the inaugural postseason <u>Skimeister Race</u> at Mt. Ripley followed by a team banquet potluck and volunteer appreciation party. **Amanda Kautzer** (dual major in Biomed and **ME-EM**) a sophomore from Plymouth, Minnesota, earned the award by achieving a 4.0 cumulative GPA as a dual major in mechanical and biomedical engineering.

Trevor Moser (PhD student, ME-EM) was lead author on a <u>paper</u> published in Science Advances. Trevor and a team of scientists and engineers, dug into the mechanisms that degrade sample quality in liquid cell transmission electron microscopy (LC-TEM). Read the Michigan Tech News <u>article</u>.

<u>Student Competitions & Team</u> <u>Awards</u>

Six undergraduate student teams from Michigan Tech traveled to Central Michigan University to compete in the eighth annual <u>New Venture Competi-</u> <u>tion</u> held on April 13. Michigan Tech's "Hinge" team - **Isaiah Pfund (so. ME)**, Jack Horrigan (ECE), and Tanner Sheahan (ChemEng) - was awarded second runner up in the pitch component and \$250. <u>Read</u> the article in the Pavlis Honors College blog.

୶୶୶ୠୠୠୠୠୠୠୠ

Michigan Tech was one of eight teams selected to compete in the AutoDrive Challenge held in Arizon on April 30. Read the Michigan Tech News blog article. The Michigan Tech Prometheus Borealis team, led by faculty advisor Jeremy Bos (asst. prof., ECE) placed 2nd in concept design and 8th overall in the inaugural competition of the AutoDrive Challenge, a three-year collegiate design competition sponsored by SAE International and GM. SAE's news release announcing the winners of the competition, was featured in The Community Post, the Mammoth Times, Times Union, Chron.com, San Antonio Press, WJMN TV, and other media outlets.

The MTU Unscripted: Science & En-



gineering Research blog featured an article "AutoDrive: The Future of Autonomous and Electric Vehicles in Rural Areas" where undergrads look into the environmental, social and economic impacts of advanced vehicle technology. Further MTU student research on the possible impacts of autonomous vehicles within rural areas was also covered in the <u>Daily Mining Gazette</u>.

2018 DESIGN EXPO WINNERS

Senior Design Awards:

1st: "Performance and Protection Characterization of Plug and Play Solar Systems".

Team members: Lauren Clark (ME-EM), Erik Romanski (ECE), Gabe Simmering & Jason Wesley, (ECE). Advisor: Sumit Paudyal (asst. prof. ECE).

Sponsor: Consumers Energy.

2nd: "Vibration-Induced Muffler Failure Problem". Team Members: Carl Jolma, Scott Pederson, Stuart Crewdson, Cam Dulong, Jared Richards, & Chet Halonen (ME-EM).

Advisor: Charles Van Karsen (assoc. prof., ME-EM).

Sponsor: Ardisam.

3rd: "Keel Cooler Efficiency Improvement".

Team Members: Neil Olson, Harrison Cannon, Daanish Tyrewala, Shveta Dhamankar, & Colin Neuman (ME-EM).

Advisor: Jaclyn Johnson (lecturer, ME-EM). Sponsor: R.W. Fernstrum

opolisol. R. W. I chistran

<u>Enterprise Program Awards</u>: Outstanding Leadership: Tyler Miller (ME-EM), Supermileage Systems

Design Expo Image Contest: 1st: "Formula SAE team 103"



Winning photograph: Formula SAE F260 airport testing, photo by **Erik Meeks (ME-EM)**

DEPARTMENT OF MECHANICAL ENGINEERING-ENGINEERING MECHANICS MICHIGAN TECHNOLOGICAL UNIVERSITY

Student Competitions & Team

Awards (con't)

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 "<u>RepRapable Recyclebot: Open Source</u> <u>3D Printable Extruder for Converting</u> <u>Plastic to 3-D Printing Filament</u>" in HardwareX. Their research was also featured in the German magazine "<u>Make:</u>".

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 here.

<u>ME-EM Faculty & Staff</u> Awards and Accomplishments

The research by **Parisa Pour Shahid Saeed Abadi** (assistant professor, ME-EM) and colleagues at Tech was featured in the article "<u>Iranian Scientist</u> <u>Develops High-tech Aiming at Growing Stronger Heart Muscle Cells Fast-</u> er," in The World News.

Andrew Barnard (assistant professor, ME-EM) is the PI on a project that received a \$59,405 R&D grant from the Office of Naval Research.

୶୶୶୶୶୶୶୶୶

Dr. Nancy Barr (Director, Eng. Comm. Program., ME-EM) presented at the International Writing Across the Curriculum Conference on the campus of Auburn University in AL in June. Her presentation focused on an effort to incorporate reflective portfolios into the UG degree program.

୶୶୶୶ୠୠୠୠୠୠ

Dr. Ezra Bar-Ziv (professor, ME-EM) is the PI on a project that received a \$25,000 R&D grant from Michigan State University.

Dr. Jim DeClerck (professor of practice, ME-EM) was nominated for the for the Outstanding Faculty Award from the 12th Annual Fraternity and Sorority Life Awards.

୶୶୶୶୶୶ୠୠୠୠୠ

PhD student Khalid Khan (ECE), **Dr. Lucia Gauchia** (associate professor ECE/ME-EM) and Joshua Pearce (MSE/ECE), published "<u>Self-</u> <u>Sufficiency of 3-D Printers: Utilizing</u> <u>Stand-Alone Solar Photovoltaic Power</u> <u>Systems</u>", in Renewables: Wind, Water, and Solar.

Dr. John Gershenson (adjunct professor, ME-EM), Tobias J. Mahan (Biomed '16) and **Benjamin L. Savonen (BSME '10)** are mentioned in the article "<u>Researchers Develop the</u> <u>Kijenzi 3D Printer to Respond to Hu-</u> <u>manitarian Crises</u>," in 3DPrint.com.

୶୶୶୶ୠୠୠୠୠୠୠ

Dr. Cam Hadden (instructor, ME-EM) received the <u>Outstanding Faculty</u> <u>Award</u> from the 12th Annual Fraternity and Sorority Life Awards.

୶୶୶ୠୠୠୠୠୠୠୠ

Dr. L. Brad King (professor, ME-EM) wrote an article appearing online at thnextweb.com titled "<u>Fledgling</u> <u>Space Startups are Finding a Niche in</u> <u>Very Low Earth Orbits</u>". Orbion Technology, founded by **Dr. L. Brad King,** was featured in the article "<u>Future of space technology: How</u> is Orbion Space Technology democratizing space science?" in TechGenYZ.

Dr. King wrote an brief <u>article</u> for MTU's Unscripted blog about the Ion Space Propulsion Laboratory (ISP Lab) which is building and testing cutting-edge plasma thrusters that are used to propel satellites once they are already in space.

Jon Lund (Machine Shop Attendant, ME-EM) was awarded the First Annual Enterprise "Behind the Scenes" staff award at the Enterprise Design Expo.

୶୶୶ୠୠୠୠୠୠୠୠ

Dr. Nina Mahmoudian (associate professor, ME-EM) was featured in Tech Today's Q&A <u>article</u> on where the mechanical engineering field is heading over the next decade.

Dr. Guy Meadows (research professor, ME-EM) was quoted in the story "First Underwater Photos from the Spill in the Straits" on Great Lakes Now. He was also mentioned in the program "<u>Great Lakes Now</u>," produced by Detroit Public TV.

র্জর্জর্জর্জর্জর্জর্জ

Dr. Meadows was referenced in the story "<u>Could 'utility corridor' be Mich-</u> igan's answer for Straits of Macki-<u>nac?</u>" by the Energy News Network. The story looked at an alternative to a pipeline in the straits of Mackinac.



DEPARTMENT OF MECHANICAL ENGINEERING-ENGINEERING MECHANICS MICHIGAN TECHNOLOGICAL UNIVERSITY

<u>ME-EM Faculty & Staff</u> (cont.) <u>Awards and Accomplishments</u>

Dr. Gregory Odegard (professor, ME-EM) presented at the 2018 ASCE Earth and Space pre-conference shortcourse: "Design and Analysis of Composite Materials for Aerospace Structures." His PhD students, Hashim Al Mahmud and Will Pisani (ME-EM). also presented. Their paper titles were: "Multiscale Modeling of PEEK Using Reactive Molecular Dynamics Modeling and Micromechanics" and "Predicting the Effective Mechanical Properties of Graphene Nanoplatelet-Carbon Fiber-Epoxy Hybrid Composites Using ReaxFF: A Multiscale Modeling Approach".

୶୶୶ୠୠୠୠୠୠୠ

Dr. Darrell Robinette (assistant professor, ME-EM) is the Co-PI on the project "Robust Terrain Identification and Path Planning for Autonomous Ground Vehicles in Unstructured Environments." The is the first year of a potential three-year project totaling \$304,525.

র্জন্ধর্জর্জর্জর্জর্জর্জ

Dr. Ye (Sarah) Sun (assistant professor, ME-EM) is the recipient of a 2018 NSF CAREER Award. The award title is "CAREER: System-on-Cloth: A Cloud Manufacturing Framework for Embroidered Wearable Electronics". The award from NSF is \$500,000 over five years starting in June.

The American Society of Civil Engineers (ASCE) Earth and Space 2018 conference was held in Cleveland, OH. Dr. Paul van Susante (senior lecturer. ME-EM) is the current chair of AS-CE's Aerospace Division that organized the conference and he gave two talks: "Minerals from Space: Terrestrial and Extra-terrestrial Perspectives" and "Robotic Mars and Lunar Landing Pad Construction Using In-Situ Rocks." He chaired two sessions, served as a student paper judge, handed out division awards, and presented the Columbia medal to Paul Wooster from SpaceX on behalf of Elon Musk.

University News/Awards

Michigan Tech was ranked among public universities that offer the highest return on investment (ROI) by Pay-Scale.com. The <u>PayScale College ROI</u> <u>Report</u> is designed to help students find the value of a college based on the salaries of bachelor's degree-only graduates. Michigan Tech ranked in the top 30 among public universities nationally and second in Michigan.

୶୶୶ୠୠୠୠୠୠୠୠ

Michigan Tech President Glenn Mroz discussed a variety of topics related to the current state of education in an interview with the Daily Mining Gazette for the article "<u>CTE is key tool to fix</u> <u>global skilled-work shortage: Mroz</u>".

A few of our favorite ME professors were recognized for their years of service to Michigan Tech at the Employee Service Recognitions dinner held on May 15, 2018. Thank you **Dr. Gopal Jayaraman** (35 years), **Professor Chuck Van Karsen** (30 years), and **Dr. John Beard** (25 years) for your years of exemplary service to ME-EM department and Michigan Tech University.









Dr. John E. B

Michigan Tech is one of four institutions to receive the 2018 National Center for Women & Information Technology (NCWIT) Surging Enrollment Seed Fund (read in <u>Tech Today</u>). The story has received extensive national media coverage in outlets such as <u>bensinga</u>, <u>KNDU</u>, <u>WCSC</u>, <u>Telemundo</u>

<u>20</u>, <u>KXXV</u> and many more.

୶୶୶୶୶୶୶୶୶

Michigan Tech was ranked in the top 50 on GloryWebs list of the <u>Top 100</u> University Website Designs in 2018.

The partnership between Bosch and MTU's Mind Trekkers was mentioned in the article "<u>Annual financial results</u> 2017; Bosch expands activities in North America," in Business Wire.

୶୶୶ୠୠୠୠୠୠୠୠ

Michigan Tech was mentioned in the article "<u>Detroit's Wayne State Univer-</u> sity Helps Develop Design Technique for Microsensors With Extremely <u>Small Footprints</u>," in dbusiness.com.

୶୶ୠୠୠୠୠୠୠୠୠ

Projects which received awards from Michigan Tech's Michigan Transitional Research and Commercialization (MTRAC) hub continue to receive coverage. Among the outlets covering the story is MITECHNEWS.com.

୶୶ୠୠୠୠୠୠୠୠୠୠ

Michigan Tech's <u>Mi-STAR program</u> recently signed an agreement with <u>Nasco</u> that will allow Nasco to prepare and sell kits for use with the Mi-STAR curriculum in middle school science classes. Mi-STAR was founded in 2015 through a generous gift to Michigan Tech from the Herbert H. and Grace A. Dow Foundation. In 2017, Mi-STAR was identified as a promising program by <u>STEMworks at West-Ed</u>. See the full article <u>here</u>.