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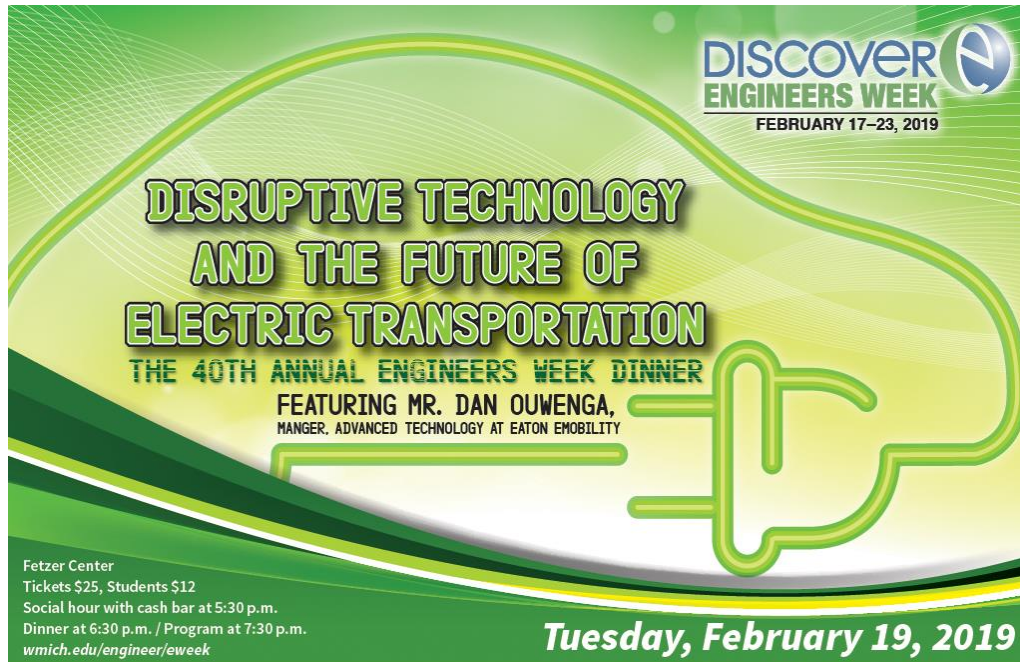




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## ***Disruptive technology theme of Engineers Week Dinner***

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## ***Shrestha receives Fulbright award***

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## ***Paper engineers host student summit***

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*Area students get to*  
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***"Give a Slice"***

*March 14, 2019*



**GIVE A SLICE**

# WMU included in \$2.2 million state grant to enhance mobility for veterans

Western Michigan University's College of Engineering and Applied Sciences will receive funding for a project to bring an autonomous electric shuttle to the Battle Creek Veterans Affairs Medical Center. The \$2.2 million project--New Autonomous Mobility Vision for Michigan--is being funded through the \$8 million Michigan Mobility Challenge announced by former Gov. Rick Snyder last year.



The challenge addresses transportation gaps for seniors, veterans and people with disabilities and includes a vehicle that is driverless, disabilities accessible and produces zero emissions.

The project is a collaboration with Pratt & Miller Engineering as the project lead, WMU, the University of Michigan, Kevadiya Inc., Robotic Research, Comet Mobility and Easterseals.





Dr. Zach Asher

“This mobility-focused initiative will improve transportation options for veterans,” says Dr. Zach Asher, WMU assistant professor of mechanical and aerospace engineering who is the Principal Investigator for WMU’s portion of the project. “The autonomous electric shuttle will provide veterans with extended hours of service at the Battle Creek VA Medical Center campus and make it easier for them to order and schedule services.

“We are committed to improving the quality of life for our veterans,” Asher adds. “New autonomous technology can fill this mobility need now and completing this project has the added benefit of enabling larger future projects that fill other mobility needs throughout western Michigan. With WMU’s ever expanding network of high profile collaborators, we will be able to continue pushing innovative and practical automotive research.”

Asher also said the project will involve making minor updates to WMU's Automotive Lab (<https://wmich.edu/autolab>) including removing some old engines and testing equipment, setting up new computer workstations that can run vehicle design software and autonomous control simulations, updating the chassis dynamometer to run more advanced tests, and installing an electric vehicle charger.

"Our role in the project is to provide autonomous vehicle simulation analysis, environment mapping, and testing support in the Western Michigan region," says Asher, who plans to hire two mechanical engineering graduate students to help with the project.

The technology does not utilize a driver, peddles or a steering wheel. However, there will be safety operator in the vehicle at all times to take control, if needed, he explains.

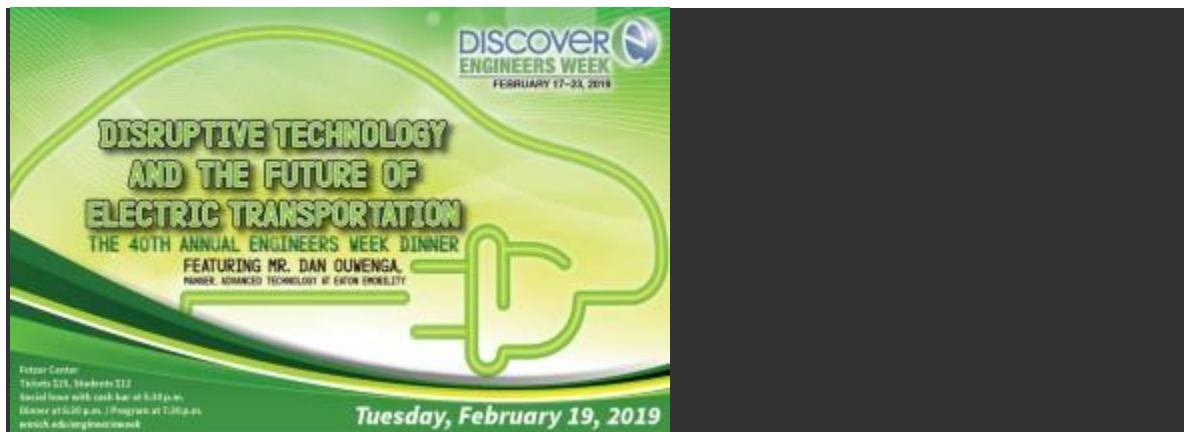
The vehicle can hold up to four passengers at a time, or a wheelchair rider with two passengers. In the future, a larger scale vehicle for 12 people also is planned.

The college will host an autonomous demonstration for the custom vehicle in [fall](#) 2019. At this time, it will launch a one-month pilot program which will run service between multiple buildings within the Battel Creek VA campus. The current manned shuttle service runs from 6 a.m. to 4:30 p.m. The driverless pilot service will run after 4:30 p.m. and will be free to service members and their families.

To date, 13 projects have been funded [through the Michigan Mobility Challenge](#) in urban, rural and suburban communities throughout Michigan.

For more information, contact Asher at [zach.asher@wmich.edu](mailto:zach.asher@wmich.edu).

# Disruptive Technology Theme of Engineers Week Dinner



Disruptive Technology and the Future of Electric Transportation will be the theme of the 40<sup>th</sup> Annual Engineers Week Dinner on Tuesday, Feb. 19. Dan Ouwenga, manager of advanced technology at Eaton eMobility, will be the featured speaker.

Disruptive technology shifts have occurred at many points throughout history and changed many industries including transportation. Ouwenga will discuss prior disruptive technology shifts and the



ongoing technology disruption of electric vehicles, providing a deeper understanding of the transition to electrified transport.

The event, hosted by WMU's College of Engineering and Applied Sciences, will be held at the Fetzer Center. The event begins at 5:30 p.m. with a social hour, dinner at 6:30 p.m., and the presentation at 7:30 p.m.

Tickets are \$25, \$12 for students and are available here: <https://wmich.edu/engineer/eweek>

The event is sponsored by the college and local businesses and organized by a committee of volunteers from regional professional societies. Any proceeds are used for scholarships. For more information contact Dr. Jorge Rodriguez at [jorge.rodriguez@wmich.edu](mailto:jorge.rodriguez@wmich.edu) or go to <https://wmich.edu/engineer/eweek>.

## Shrestha Receives Fulbright award



Dr. Bade Shrestha

Dr. Bade Shrestha, professor of mechanical and aerospace engineering, has been awarded a Fulbright Scholarship and will be heading to Japan in September to lecture and conduct research at Nihon University, College of Science and Technology in Tokyo for 10 months. He will be conducting research and teaching classes on clean energy technology and energy policy.

“This is an opportunity to showcase Western teaching and research to Japanese students and scholars, and internationally,” Shrestha said. “My research will focus on clean energy technology and energy policy as Japan is one of the top leading countries in the world in clean energy technology development and implementation.”

He noted that Japan has dropped its reliance on coal from over 86 percent to less than 19 percent of total energy in recent years.

The Fulbright Program is the flagship international education exchange program sponsored by the U.S. government. It aims to “increase mutual understanding between the people of the United States and the people of other countries.”

“I’m honored to be selected for the Fulbright award and represent WMU,” Shrestha said. “I am looking forward to the opportunity to share mutual experiences and accomplishments with my host institution and the local community.”

## ABOUT THE FULBRIGHT PROGRAM

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Since its inception in 1946, the Fulbright Program has provided more than 380,000 participants—chosen for their academic merit and leadership potential—with the opportunity to exchange ideas and contribute to finding solutions to shared international concerns. Over 1,100 U.S. college and university faculty and administrators, professionals, artists, journalists, scientists, lawyers, and independent scholars are awarded Fulbright grants to teach or conduct research annually. The Fulbright U.S. Scholar Program operates in more than 125 countries throughout the world.

The Fulbright Program is funded through an annual appropriation made by the United States Congress to the Department of State. Participating governments and host institutions, corporations, and foundations in foreign countries and in the United States also provide direct and indirect support.

# Paper Engineers Host Student Summit

WMU hosted the 2019 TAPPI (Technical Association for the Pulp and Paper Industry) Student Summit conference in Kalamazoo Jan. 18-21, drawing 165 students from 13 universities, including 52 students from the college's paper engineering program. The conference included professional sessions, an engineering competition, a trivia game, interviews and networking fair for placement, a paper mill tour, and networking activities.

The conference was chaired by Jennifer Johnson from the Paper Technology Foundation (PTF). The executive board of the registered student organization Ts'ai Lun designed and managed the engineering competition and moderated the weekend programming. Numerous alumni presented along with the following WMU/PTF industry partners:

- Dean Houssam Toutanji, WMU
- Dr. Kecheng Li, Department Chair, Chemical and Paper Engineering
- Lon Pschigoda '98, WMU Pilot Plants General Manager
- Tim Hagenbuch '94, PTF Board President-Elect and WestRock Eaton Mill Manager
- John Bergin '66, PTF Managing Director
- Jay Hennessey, PTF Member and Pratt Valparaiso Mill Manager
- Mike Farrell, PTF VP and Executive Vice President, Mill Division for Graphic Packaging who delivered the keynote address.

"It was a very informative and valuable event for the paper engineering students, and gave us a chance to showcase WMU, our program and Kalamazoo," Johnson said. "Sponsoring companies and other professional attendees praised our WMU students as being unparalleled in quality with their industry experience and exceptional presentation."



# Area students get to “Dream Big”



In celebration of Engineers Week 2019, the College of Engineering and Applied Sciences has planned an outreach event for the third year in a row, bringing in several hundred area middle school and high school students to a special screening of the IMAX Dream Big film at IMAX Celebration! Crossroads in Portage on Monday, Feb. 18 and Thursday, Feb. 21.

It is the first film of its kind to highlight engineers, engineering feats and to inspire a new generation of young people to pursue engineering. The film is described as having “an eclectic, stereotype-bursting engineer cast” and features engineering’s greatest marvels. Highlights include

the 13,000-mile Great Wall of China, the twisting and turning Shanghai Tower, underwater robots, solar cars and smart, sustainable cities. It also showcases female engineers who share their stories and work in the field.

Dream Big is the first giant screen project to promote the educational STEM movement (Science, Technology, Engineering and Math). It was produced by the MacGillivray Freeman Films, the Academy-Award nominated producers of Everest and The Living Sea, and in partnership with the American Society of Civil Engineers, Bechtel and a coalition of engineering organizations.

# Printing organization provides scholarship



Senior Alexander Courtney was awarded a scholarship from the Printing Industries of Michigan, Inc. and honored at the Michigan Printing Week Ben Franklin Awards Dinner in January. The scholarship goes to college students in a graphic arts program or planning to pursue a career in graphic communications industry. Congratulations, Alex!