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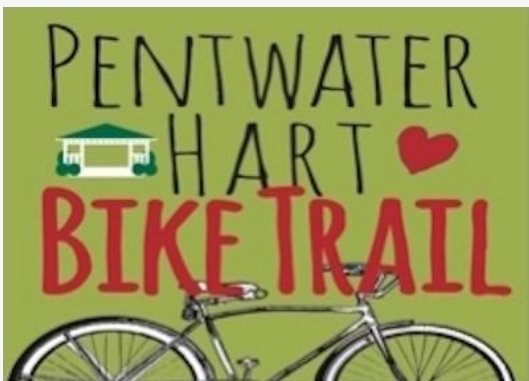




Chasing the sun along the Oregon Trail

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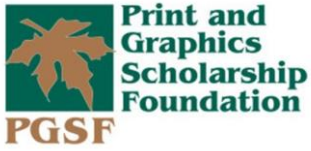
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Chasing the sun along the Oregon Trail



Western Michigan University's Sunseeker Solar Car Team performed better than it had in the past several years and was able to set off July 14 on the 1,700-mile cross-country race as part of the American Solar Challenge. It was unable to make it to the first checkpoint, however.

"The team was obviously disappointed, after working tirelessly on readying the car for the event," said Dr. Mitchel Keil, faculty advisor for Sunseeker. "But they enjoyed participating in the publicity events at various locations along the way. Team members are certainly knowledgeable about the car and engaged with spectators, sharing information about their vehicle and the value of solar energy."

This year's race follows portions of the Oregon Trail, beginning in Omaha, Neb., and ending in Bend, Oregon. The team had done well overall with scrutineering, track racing and other judging needed to qualify for the cross-country race.

The scrutineering process involves a full evaluation of each team's car and drivers. Before a team may proceed to race on the track, they must demonstrate their car meets all regulations. In order to qualify for the America Solar Challenge road tour, a vehicle must complete 96 laps in one day or 143 laps in two consecutive days. In addition, each driver must complete 24 laps to qualify. WMU's team completed 163 laps over the three-day track race.

The team did not quite meet the required laps to qualify for the American Solar Challenge tour, but was permitted to race under provisional terms.

WMU's Sunseeker team first began designing, building and racing cars in 1990 with the goal of enhancing understanding of renewable energy and to make renewable energy sources more viable for the future.

The team typically takes the solar car to some 40 public and private events each year, and plans to visit sponsors and donors to thank them for their generous support when they return. "We could not be where we are without the many sponsors who contribute generously to help make our solar car a reality," Keil said. A complete list of sponsors can be found at www.wmich.edu/sunseeker/sponsors.

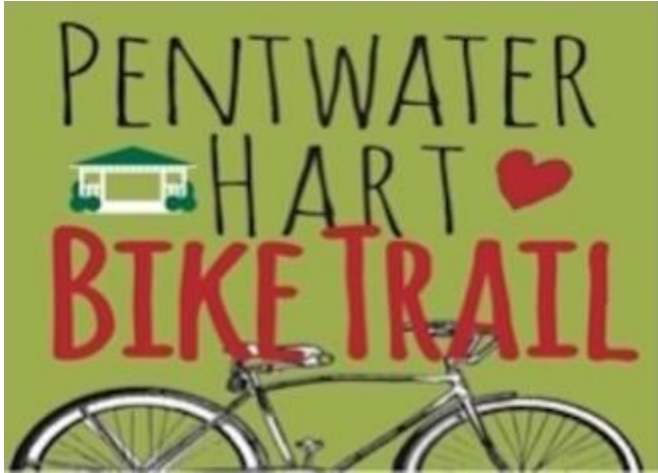
Other teams that participated in the 2018 American Solar Challenge were: University of California - Berkeley, Massachusetts Institute of Technology, University of Michigan, University of Illinois, Georgia Tech, University of Minnesota, University of Bologna, Appalachian State, Southern Illinois University – Edwardsville, Poly Montréal, ETS Quebec, University of Waterloo and Western Sydney University.

For more information about the Sunseeker team, go to <http://wmich.edu/sunseeker>.

For more information about the 2018 American Solar Challenge, go to <http://americansolarchallenge.org/the-competition/american-solar-challen...>



Engineers help community blaze a new trail



A team of WMU civil and construction engineering students are trailblazers ... certainly to the village of Pentwater in West Michigan's Oceana County. As part of a senior design project, Jarret Geering, Matthew Looby, Eric VanSpronsen and Kristopher Warner worked with the Village of Pentwater, Oceana County Road Commission and the Pentwater-Hart Bike Trail committee to design an extension to the existing 22-mile William Field Memorial Hart-Montague Bike Trail. Their efforts involved planning for a new trail that would link Pentwater to the Hart-Montague Trail.

The students assisted with the overall planning of the proposed trail route, considered route alternatives and researched ways to resolve or eliminate concerns along the proposed route. Geering presented the team's recommendations at a public presentation to the trail committee members, various local officials and area residents.

John Wilson, who sponsored the project and is a volunteer and retired parks and recreation administrator, said the group's research and proposal on the trail provided a tremendous boost to the effort. Their work provided the Pentwater Trail Committee the needed information to assemble a funding request to state Sen. Goeff Hansen, Wilson said. The request went through a review process by the senator and his staff. While attending a special event for the trail in Pentwater in late June, Hansen announced the award of a Special Legislative Grant of \$1.4 million for the planning, design and construction of the Pentwater-Hart Bike Trail.

"We really appreciate the work and dedication of these students", Wilson said. "It was an excellent collaboration, and we are eager to invite them back for the ribbon cutting of the Pentwater-Hart Bike Trail. They are an important part of the history of this trail."

Dr. Decker Hains, master faculty specialist and senior design coordinator, served as an advisor to the team. "It's great to see our graduating seniors showcase their knowledge and put into practice what they have learned, and in this case, make a real impact and long-term contribution to a community," he said.

Students, faculty represent WMU at engineering education conference



Shown with the Little Free Library senior design project installation, from left to right: Ozella Wooley, Geoff Burns, Jack Ruggless and Andre Ly.

WMU's College of Engineering and Applied Sciences was well represented at the 2018 conference of the American Society of Engineering Education (ASEE), North Central section. Hosted by University of Akron, the sectional conference drew faculty and students from Michigan, Ohio, Pennsylvania and West Virginia. All WMU students who attended participated in either student paper or student poster competitions.

Three students from chemical engineering – Alexander Maldonado, Naomi Van Dien and Sarah Koehler – presented an individual paper and two posters, respectively. Sarah Koehler won first place for the best student poster with her research poster entitled “Reaction kinetics and speciation dynamics during extraction of runoff particulate-bound phosphorus using citric acid.”

An interdisciplinary senior design project team from the Department of Engineering Design, Manufacturing, and Management Systems (EDMMS) – Geoff Burns, Brian Fulkerson, Andre Ly, Jack Ruggless and Ozella Wooley – presented a poster on their senior project, “Architectural-specific design and build of Little Free Libraries,” and took second place.

Research and travel funding, as well as registration support, was provided by the Michigan-Louis Stokes Alliance for Minority Participation (MI-LSAMP), coordinated by Dr. Andrew Kline, associate dean for research and graduate education, as well as through the college and the EDMMS department.

Kline and Dr. Betsy Aller, associate professor of EDMMS, attended the conference as well. Kline is the past chair of the organization's North Central section and assumed a national leadership role as Zone 2 chair in June 2018. Aller has been the North Central section's campus

representative coordinator for many years and was recognized for her efforts at the national conference.

Graduate student receives State Department scholarship to study in Japan



Joshua White, second from left, in Japan.

Joshua White, a graduate student in electrical engineering, is in Hikone, Japan, studying Japanese, thanks to a U.S. Department of State scholarship. White received a full scholarship from the state department's Critical Language Scholarship (CLS) program to participate in an eight-week summer course at the University of Shiga Prefecture in Hikone.

The scholarship program is part of a federal effort to expand the number of Americans studying and mastering critical foreign languages. Those who receive these scholarships gain critical language and cultural skills that enable them to contribute to U.S. economic competitiveness and national security.

White is one of about 550 competitively selected American students at U.S. colleges and universities who received a CLS award in 2018. Recipients of the awards include students from more than 230 institutions of higher education, including public and private universities, liberal arts colleges, minority-serving institutions and community colleges.

A graduate of Paw Paw High School, White is a student in the college's accelerated bachelor's/master's degree program in electrical engineering. He graduated from WMU in April with a bachelor of arts in Japanese, bachelor of science in applied mathematics and bachelor of science in engineering in computer engineering. He expects to graduate with a master of science in engineering in electrical engineering and a master of science in applied and computational mathematics in April 2020.

White plans to continue on and obtain a doctoral degree in electrical and computer engineering, focusing on research in electro-neurophysiological interfacing. Eventually, he wants to move to

Japan and work on developing advanced prosthetics that interface directly into the human nervous system to help improve the quality of life for amputees.

During his undergraduate career, White was named WMU's 2018 Presidential Scholar in Electrical and Computer Engineering as well as its 2018 Presidential Scholar in World Languages and Literatures. Being named a Presidential Scholar is the highest honor a senior can receive from the University.

In addition, White was a member of WMU's Lee Honors College and earned the University's Yukiko Murakami Scholarship, which allowed him to study abroad from September 2015 to August 2016 at Keio University in Tokyo. While studying in Tokyo, he also volunteered to assist teaching English to students at Adachi Daijuu Middle School.

The Critical Languages Scholarship program allows U.S. undergraduate and graduate students to spend eight to 10 weeks abroad studying one of 14 critical languages: Arabic, Azerbaijani, Bangla, Chinese, Hindi, Indonesian, Japanese, Korean, Persian, Punjabi, Russian, Swahili, Turkish, or Urdu.

The program includes intensive language instruction and structured cultural enrichment experiences designed to promote rapid language gains. CLS scholars are expected to continue their language study beyond the scholarship and apply their critical language skills in their future careers.

Critical languages are those that are less commonly taught in U.S. schools, but are essential for America's engagement with the world. The scholarship program plays an important role in preparing U.S. students for the 21st century's globalized workforce. Along with their contributions to the nation's economy and labor force, CLS scholars serve as citizen ambassadors, representing the diversity of the United States abroad and building lasting relationships with people in their host countries.

Learn more about the [Critical Languages Scholarship](#) and [WMU's international programs and services](#).

High school students learn entrepreneurship skills at summer camp



More than 20 aspiring entrepreneurs from area high schools participated in an innovation and entrepreneurship camp held this summer at the College of Engineering and Applied Sciences. The week-long camp – called “Beyond the Lemonade Stand: An Entrepreneurship and Innovation Experience” – was a collaboration with the Haworth College of Business. What began as a 2-day camp several years ago, was expanded to four days in 2017, but based on participant feedback, now is a 5-day event.

“The students learned about what it takes to start a business, to be an entrepreneur or engineer,” said Lara Hobson, who led the camp and serves as operations director of Starting Gate, WMU’s business accelerator. “They worked in teams during the week to brainstorm ideas and developed prototypes of products they pitched to judges on the last day. It’s amazing how creative and clever the students are.”

Holding the camp on the Parkview Campus allows participants to take advantage of the labs and facilities of Floyd Hall and enjoy site visits at area companies in the BTR Park.

Speakers included faculty from both the College of Engineering and Applied Sciences and the Haworth College of Business, leaders in the community and area businesses, and local entrepreneurs. Topics included business plan and financial fundamentals, successful business pitching, inventing a product and leadership. The students toured WMU’s Human Performance Institute, Tekna and the WMed Innovation Center.

Parsaei receives prestigious service award from professional organization



Dr. Hamid Parsaei

Dr. Hamid Parsaei, who received his master's degree in industrial engineering from Western in 1980, recently won a prestigious service award from the Institute of Industrial & Systems Engineers. Parsaei was awarded the Fred C. Crane Distinguished Service Award at the organization's annual conference in Orlando. The award recognizes an individual's contributions that "have been rendered through long and arduous service at the Institute level." The award is named for Fred C. Crane, who served for many years at the Institute as conference coordinator. Parsaei is a professor at Texas A & M University at Qatar. He received the Alumni Excellence Award from WMU's College of Engineering and Applied Sciences in 2015. He is a member of the college's Industry Advisory Board.

Foundation awards \$17,600 in scholarships

The Print and Graphics Scholarship Foundation recently awarded \$17,600 in scholarships to students in WMU's graphic and printing science program. Bilge Altay, Morgan Haskins, Sierra Rivera, Rebecca Schaefer and Dipesh Sonar were recipients of the 2018 scholarships, which were announced in July. The foundation is a non-profit, industry-directed organization that provides undergraduate college scholarships and graduate fellowship assistance to talented men and women interested in graphic communication careers.

WMU's graphic and printing science program prepares students to work in the printing, imaging and inks industries, learning digital printing, color management, communication, computer

graphics and business applications. The program is accredited by the Accreditation Council for Collegiate Graphic Communications.

Graduate student's team wins pitch competition at national conference



WMU students at the conference included executive board members of the Institute of Industrial & Systems Engineers student chapter, pictured from left to right, Tessa Williams, Jenny Komorowski, Anna Konstant and Morgan Kronner.

Hats off to Anna Konstant, a master's student in industrial engineering, whose team took 1st place in the Innovation Design Competition at the annual conference of the Institute of Industrial & Systems Engineers in Orlando. The team – which also included students from Texas Tech, University of Texas at Arlington, and George Tech – developed an app to help people plan parties and won the pitch competition.