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Civil Engineering Team Wins Best Senior Engineering Design Project

Seniors Matthew Mullen, Michael Rickert, Nathan Arnett called their project “Structural Design of Portage Central High School Gymnasium” and it earned them the award for best senior project. The project was based on the view that gymnasiums are not only used for a school curriculum but also extracurricular activities, assemblies and community events. By implementing advanced structural analysis and design, a gymnasium was designed for Portage Central High School to meet these needs in the most efficient way possible. Several design alternatives were analyzed for roofing, wall, and foundation systems. A final design was determined based on economics, ease of construction, sustainability, durability, and aesthetics. The project was one of sixty-six that were presented at the conference. Their sponsors were: Tom Nehil, Tom Palarz, and Ben Trojniak of Nehil-Sivak Consulting Structural Engineers. Their faculty advisor was Yufeng Hu.

WMU Mechanical Engineering Graduate Honored With SAE International Rumbaugh Award

Michael Nienhuis earned his bachelor’s and master’s degrees in mechanical engineering from Western Michigan University. He was a student member of Society of Automotive Engineers International from 2007-2012, during which time he was involved in Formula SAE™ and Baja SAE™. He was president of the Western Michigan University Student Chapter from 2010-2012. Michael is now in the Ford College Graduate Program for Product Development where he was honored with the SAE International’s Rumbaugh Outstanding Student Leader Award. For more on Michael visit: SAE International. Michael was always very active and involved in numerous projects, teams, and events during both his undergrad and graduate years at WMU. Right: Michael with the last Formula car he worked on at the College of Engineering and Applied Sciences.

Dr. Haluk Aktan Organized and Chaired Workshop for State Engineers

On March 28, 2013, Civil and Construction Engineering Professor Dr. Haluk Aktan organized and chaired a workshop for state engineers and consultants. The workshop goal was to provide technology transfer to state engineering staff and consultants regarding the effective implementation of readily available and proven nondestructive evaluation (NDE) technology, and how NDE is most effectively integrated into the bridge management program. The workshop was funded by the Michigan Department of Transportation and the Federal Highway Administration. The workshop was attended by sixty people consisting of Federal Highway Administration Engineers, Michigan Department of Transportation engineers, local agency engineers and consultants. The workshop took place at the Michigan Department of Aeronautics Auditorium at the Lansing Capitol City Airport. In addition to Haluk Aktan, presenters were Dr. Herbert Wiggenhauser, Head of Division Non-Destructive Testing in Civil Engineering at the German Federal Institute for Materials Research and Testing (BAM), Dr. Jerome Lynch, Professor of Civil Engineering at the University of Michigan, Ann Arbor and the Director of Intelligent Systems and Technologies Laboratory, Dr. Tess Ahlborn, Professor of Civil Engineering at Michigan Technological University and Director of Structural Durability Center with the Michigan Transportation Institute, Dr. Ali Maher, Professor of Civil Engineering at Rutgers and Director of Center for Advanced Infrastructure and Transportation (CAIT), and Dr. Nenad Gucunski, Professor and chair of Civil Engineering Department at Rutgers and Program Director of Infrastructure Condition Monitoring Program (ICMP). Dr. Aktan is also the director of the Michigan Department of Transportation Center of Excellence on Structural Durability.

~ Submitted by Haluk Aktan
Scenes From the 52nd Senior Engineering Design Conference

GRAND HAVEN HARBOR DRIVE REDESIGN
By: Chris Cooper, Matt Proffitt, and Josh Minger
Sponsor: Brian Vilmont, Fishbeck, Thompson, Carr & Huber
Faculty Advisor: Valerian Kwigizile

ELECTRIC-ASSIST URBAN TRANSPORTATION
RECUMBENT TRIKE
By: Adam Hill and Michael Robinson
Sponsor: Matthew Hollander, WMU Office for Sustainability
Faculty Advisors: Pavel Ikonomov and David Middleton

I-94 DEEP CULVERT REPLACEMENT
By: Alexander Fattal, Evan Mann, and Peter Oudsema
Sponsor: Rick Jenkins, MDOT
Faculty Advisor: Mr. John S. Polasek

800 BARREL FERMENTATION ADDITION
by: Matt Moran, Phil Tartaglia, and Bryce Wegner
Sponsor: Bryan Webster, Byce Consulting Engineers
Faculty Advisor: Xiaoyun Shao