Regionals at MSU

March 18, 2016

Steel bridge and concrete canoe contests coming to MSU April 7-9

Teams of intercollegiate engineers from across Michigan and Ohio will be building 21-foot steel bridges inside the Breslin Center and splashing concrete canoes around Lansing’s Hawk Island Park when Michigan State University hosts the American Society of Civil Engineers (ASCE) 2016 North Central Student Conference, April 7-9.

The conference hosts two intercollegiate design contests: the Steel Bridge Construction Competition and the Concrete Canoe Competition.

Events are free and open to the public.

This year’s teams are from:

Case Western Reserve (steel bridge only)
Lawrence Technological University
Michigan State University
Michigan Technological University
Ohio Northern University
University of Detroit Mercy (concrete canoe only)
University of Michigan
University of Toledo
Western Michigan University

Events begin on Thursday, April 7, with captain’s meetings at 6 p.m., an icebreaker at 6:30 p.m., and technical paper presentations from 7 to 9 p.m. in the College of Engineering Room 3405.

See the full schedule of activities below.

Steel bridge competition

Friday, April 8, 8 a.m. to 6 p.m.
Breslin Center, MSU, 534 Birch Rd, East Lansing, MI 48823
Best time to view the competition: 8 a.m. to noon

The Student Steel Bridge Competition is a varsity-level challenge for competing ASCE civil engineering student teams. Students work for months to design, fabricate, and erect a 21-foot long steel bridge. The requirements are strict -- to support 2,500 pounds with minimum sag. Bridges arrive at the competition sites in three-foot long pieces and must be assembled during the timed competition without stepping in an imaginary river.

MSU steel bridge advisor Frank Hatfield said the contest is more than just an opportunity for teams to show off their understanding of steel design, steel fabrication, and teamwork. “A lot of pride and sweat equity goes into this college challenge every year,” the long-time advisor explained.

“Steel bridge requires students to design and build their product from scratch,” Hatfield said. “Students convert their designs to shop drawings and build the structure piece by piece. Judges examine their work for qualities including lightness, economy, appearance and various measures of strength and stability.”
See a 2015 video from MSU’s Steel bridge team: https://www.youtube.com/watch?v=N4NafANo5hc

The conference chair is Patrick Schwyn, a junior in civil engineering, from St. Joseph, Michigan. Schwyn said the events give students a fun and competitive way to put what they have learned in the classroom to use.

“Almost all of the work is done by students, everything from concrete design and steel fabrication to project management and communication. In some ways participants also get a head start in material they have yet to learn,” he explained. “It also gives students a way to network with their peers, who they may someday work with.”

In spite of the fun, Schwyn said the competing teams “definitely take it very seriously. A lot of hard work and long hours gets put into these projects so coming out on top is a nice reward,” he said. “For most of us, this is the only chance we get to compete with other universities so we enjoy getting into the competitive spirit that extends beyond the football field, basketball court, or ice rink.”

MSU steel bridge captains this year are Jake Maise, a senior in civil engineering from East Lansing; Shayne Maguire, a senior in mechanical engineering from East Lansing; and Kyle Savoie, a junior in civil engineering from Clarkston.

Winning teams at the MSU will represent the North Central Region in the national competition at Brigham Young University in Provo, Utah, May 27-28. MSU has won the regional contest for the past three years. Read more on the 2016 National Student Steel Bridge Competition at: http://www.aisc.org/content.aspx?id=780

Concrete canoe competition
Saturday, April 9, 8:30 a.m. to 6 p.m.
Hawk Island Park, 1601 E Cavanaugh Rd, Lansing, MI 48910
Best time to view the competition: 10 a.m. to 6 p.m.

Michigan State's concrete canoe this year is named Leonidas, said team captain Scott Pressey, a senior in civil engineering from Dearborn, Michigan. Team advisors are George Stockman, a retired professor of computer science and engineering, and Anthony Ingle, a specialist in civil and environmental engineering.

The regional contest is part of the National Concrete Canoe Competition provides students with a practical application of the engineering principles they learn in the classroom, along with team and project management skills they will need in their careers. The event challenges the students' knowledge, creativity and stamina, while showcasing the versatility and durability of concrete as a building material. The organization’s first national concrete canoe contest was hosted in East Lansing by MSU in 1988.

This year’s winners will represent the North Central Region at the national competition at the University of Texas at Tyler from June 9-11, 2016. Read more on the 2016 National Concrete Canoe Competition at: http://www.asce.org/event/2016/concrete-canoe/

The national competitions are sponsored by the American Institute of Steel Construction and the American Society of Civil Engineers.
Thursday, April 7
5:15-6 p.m., Registration and check in, 1281 Anthony Hall
6-6:30 p.m., Captain's meeting – Canoe, 3540 Engineering Building
6-6:30 p.m., Captain’s meeting – Bridge, 3405 Engineering Building
6:30-7:30 p.m., Icebreaker, 1281 Anthony Hall
7-9 p.m., Technical paper presentations, 3405 Engineering Building
7-9 p.m., Mystery competition, 1281 Anthony Hall

Friday, April 8

Steel Bridge:
7-8 a.m., Set-up, Breslin Center
8-8:30 a.m., Judge's meeting/tear down, Breslin Center
8:30 a.m.-6:30 p.m., Steel bridge competition, Breslin Center
11:30 a.m.-1:30 p.m., Lunch, Breslin Center

Concrete Canoe:
7-8 a.m., Set-up, Breslin Center
8 a.m.-12 p.m., Aesthetics, Breslin Center
12-2 p.m., Tear down, Breslin Center
1-2 p.m., Lunch, Breslin Center
2:30-5 p.m., Presentations, Breslin Center
5:30-6:30 p.m., Business meeting, Breslin Center
7:30-9:30 p.m., Banquet/Steel bridge awards, Breslin Center

Saturday, April 9 – Hawk Island Park, 1601 E Cavanaugh Rd, Lansing, MI 48910
8-9 a.m., Unloading
8:15-9:45 a.m., Swamp testing
10 a.m.-6 p.m., Concrete canoe races
12-1:30 p.m., Lunch
1-1:30 p.m. Durability check
6 p.m., Awards and closing ceremony

Related Website: Communications contact: Patricia Mroczek

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