

# **Bethalto's Hannah Butkovich Is Part Of Steel Bridge Design Team That Competes At National Championship**

June 10 2022 10:55 AM



ROLLA, MO. - Bethalto's Hannah Butkovich, a junior in civil engineering, was a team participant on the Missouri S&T Steel Bridge Design Team that competed against 33 other collegiate teams in the American Institute of Steel Construction's Student Steel Bridge Competition on May 25-26 at Virginia Tech in Blacksburg, Va.



Butkovich was an acclaimed scholar-athlete in high school at Civic Memorial in both tennis and girls soccer as a midfielder. Missouri S&T doesn't have tennis or she would be a college tennis player, so she chose the academic route with her strong prowess in

the classroom. She was a straight-A student in high school and has continued her academic strength at the prestigious Missouri S&T in her engineering degree pursuit.

In the months leading up to the competition the team designed and built components for a scale-model bridge. This year the challenge was to design a wildlife crossing over a highway. During the competition, Missouri S&T's team constructed their 275-pound bridge in just over six minutes, after which the bridge underwent several load tests.

Bridges are scored on categories including weight, rigidity, construction speed, and efficiency. Penalties are assessed for infractions like dropping bolts, holding two pieces of the bridge at once and stepping over designated lines. The scores are based on dollar amounts rather than a points system, simulating the accounting process involved in determining the budget for a real bridge construction project.

While Missouri S&T's team came in 13th overall, they came in first in the cost estimate category. Before the bridges undergo load tests, each team must estimate how well their bridge will perform in each scenario. Missouri S&T's team had the most accurate estimate of their bridge's performance, coming within 3% of their final overall score.

The Student Steel Bridge Competition is designed to supplement a civil engineering education with a comprehensive student-driven project experience from conception and design through fabrication, construction and testing that results in a steel structure that meets client specifications and optimizes performance and economy. The competition also increases awareness of real-world engineering issues like spatial constraints, material properties, strength, safety, aesthetics and cost.







The following Missouri S&T students are members of the Steel Bridge Design Team:

- \* President: Brendan Schmidt, a senior in civil engineering from St. Peters, Missouri
- \* Vice-president: Ben Harris, a senior in business and management systems from St. Peters, Missouri
- \* Lead design: Michael Winner, a graduate student in civil engineering from St. Peters, Missouri
- \* Lead fabricator: Krysta Swartz, a senior in civil engineering from Caseyville, Illinois
- \* Secretary and treasurer: Cole Allen, a senior in civil engineering from Wentzville, Missouri
- \* Chief of public relations: Carter Blake, a junior in civil engineering from Lake St. Louis, Missouri.

Team members:

- \* Alfred Addai-Nimoh, a graduate student in civil engineering from Accra, Ghana
- \* Andrew Ashton, a senior in civil engineering from St. Louis
- \* Meet Bhakta, a senior in civil engineering from Columbia, Missouri
- \* Bo Blomenkamp, a senior in civil and architectural engineering from Columbia, Missouri
- \* Kyle Bryan, a junior in civil engineering from St. Peters, Missouri

- \* Garrett Coggin, a sophomore in civil engineering from Ozark, Missouri
- \* Nathan Derucki, a sophomore in civil engineering from Wildwood, Missouri
- \* Joseph Fawks, a sophomore in mechanical engineering from Springfield, Missouri
- \* Seth Filipsen, a first-year student in civil engineering from Overland Park, Kansas
- \* Justice Gorsline, a sophomore in multidisciplinary studies from Oak Grove, Missouri
- \* Katelyn Griebel, a first-year student in geological engineering from Punxsutawney, Pennsylvania
- \* Jacob Johnson, a senior in civil engineering from Ballwin, Missouri
- \* Patrick Keough, a senior in civil engineering from Huntington Beach, California
- \* Zachary Parr, a first-year student in mechanical engineering from Old Monroe, Missouri
- \* Steven Puder, a senior in architectural engineering from Waterloo, Illinois
- \* Jarret Rausch, a senior in civil engineering from Kansas City, Missouri
- \* Jordan Sanzottera, a graduate student in civil engineering from Wentzville, Missouri
- \* Tyler Sanzottera, a senior in civil engineering from Wentzville, Missouri
- \* Dakota Starnes, a junior in civil engineering from Union, Missouri
- \* Harper Thomsen, a senior in civil engineering from Belton, Missouri
- \* Tristan Zeh, a junior in engineering management from Marthasville, Missouri.

### **About Missouri University of Science and Technology**

Missouri University of Science and Technology (Missouri S&T) is a STEM-focused research university of over 7,200 students. Part of the four-campus University of Missouri System and located in Rolla, Missouri, Missouri S&T offers 101 degrees in 40 areas of study and is among the nation's top 10 universities for return on investment, according to Business Insider. S&T also is home to the Kummer Institute, made possible by a \$300 million gift from Fred and June Kummer. For more information about Missouri S&T, visit [www.mst.edu](http://www.mst.edu).