

Award-Winning Bridge Erected by UC San Diego Students Finds New Home

Twenty-foot steel bridge is latest addition to UCSD's Science & Engineering Library

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It may in fact be a bridge to nowhere but it was constructed under the strictest building requirements, and was required to meet rigorous structural efficiency and economy standards, as well as withstand a 2500 pound load. The 200-pound bridge, completely designed and fabricated by a team of twelve UC San Diego undergraduate engineering students, won second place among 17 competing schools at the 2008 Pacific Southwest Regional Conference Steel Bridge Competition, held last year at Cal State Northridge.

The bridge, which at completion comprised about 70 different parts, was constructed with the help of the Campus Research Machine Shop (CRMS), although students were responsible for the design and fabrication, and learned how to weld, mill, and lathe steel parts. UCSD's Society of Civil Engineers, of which the participating students are members, competes annually in the contest, which is designed to test students' creativity and analytical skills, while teaching real-life machining skills.

While a steel bridge is not a common sight at a library, for UC San Diego's Science & Engineering Library (known as S&E), it fits right in with other atypical fixtures, including large-scale model airplanes and a full-size video game character suit.

"We are proud to have this outstanding steel bridge on display at the S&E Library," said Mary Linn Bergstrom, director of the UC San Diego Science & Engineering Library. "Our science and engineering students come here to be inspired as well as to study. Surrounding them with inventive, unconventional projects sparks their creativity and shows them that there are many paths to innovation they can take at UC San Diego."

Members of the 2008 steel bridge team include: Jeremy Niez (Captain); Marcelino Ascensio; Oliver Asis; Michael Barnes; Lacy Cobb; Jimmie Chung; Colin Haynes; Darin McKay; Stephanie Rider; Armondo Romo; Scott Schrommer; and Mick Wasco. The team's advisors were Michael Todd, Benson Shing, and Chia-Ming Uang, all professors of structural engineering at UC San Diego's Jacobs School of Engineering.

"I think the steel bridge project, and hands-on projects like this, are integral parts of life-long learning in fields like engineering," said Niez, who served in the U.S. Navy for four years before joining UCSD, participating in both Operation Enduring Freedom and Operation Iraqi Freedom. "Students learn how to set their own goals, manage their peers, and complete individual and group tasks on deadline. I was proud to work with such a talented team of future engineers in completing this project."

According to the American Society of Civil Engineers and the American Iron and Steel Institute, the major sponsors of the competition, the contest aims to increase student awareness of real-world issues such as spatial constraints, material properties, strength, safety, and various other factors. The competition, from conception and design through fabrication, erection, and testing, culminates in a steel structure that meets client specifications and optimizes performance and economy.

The steel bridge can be visited during regular library hours adjacent to the Science & Engineering Library Service Desk. For more information about the UCSD steel bridge and the competition go to: <http://www.ucsdsteelbridge.weebly.com/>

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