



AIMM Indiana Collegiate Challenge

The Artificial Intelligence Maritime Maneuver Indiana Collegiate Challenge (AIMM ICC) tasks the brightest students from Indiana colleges and universities with developing a low-cost, easy-to-build, fully autonomous low-profile vessel (LPV) capable of fulfilling various mission objectives. Trine University, in collaboration with Naval Surface Warfare Center Crane Division (NSWC Crane), funded by the Department of the Navy, Office of Naval Research under ONR award number N00014-23-1-2661, hosted the AIMM ICC at Pokagon State Park, Indiana.

VIP DAY - 26 APRIL 2024
ICC CHALLENGE - 27 APRIL 2024

Continuing partnership

Representative Jim Banks (IN-3) led a congressional funding addition for a partnership between Trine University and NSWC Crane – focused on advancing efforts to develop vessels guided by artificial intelligence. This builds upon several years of

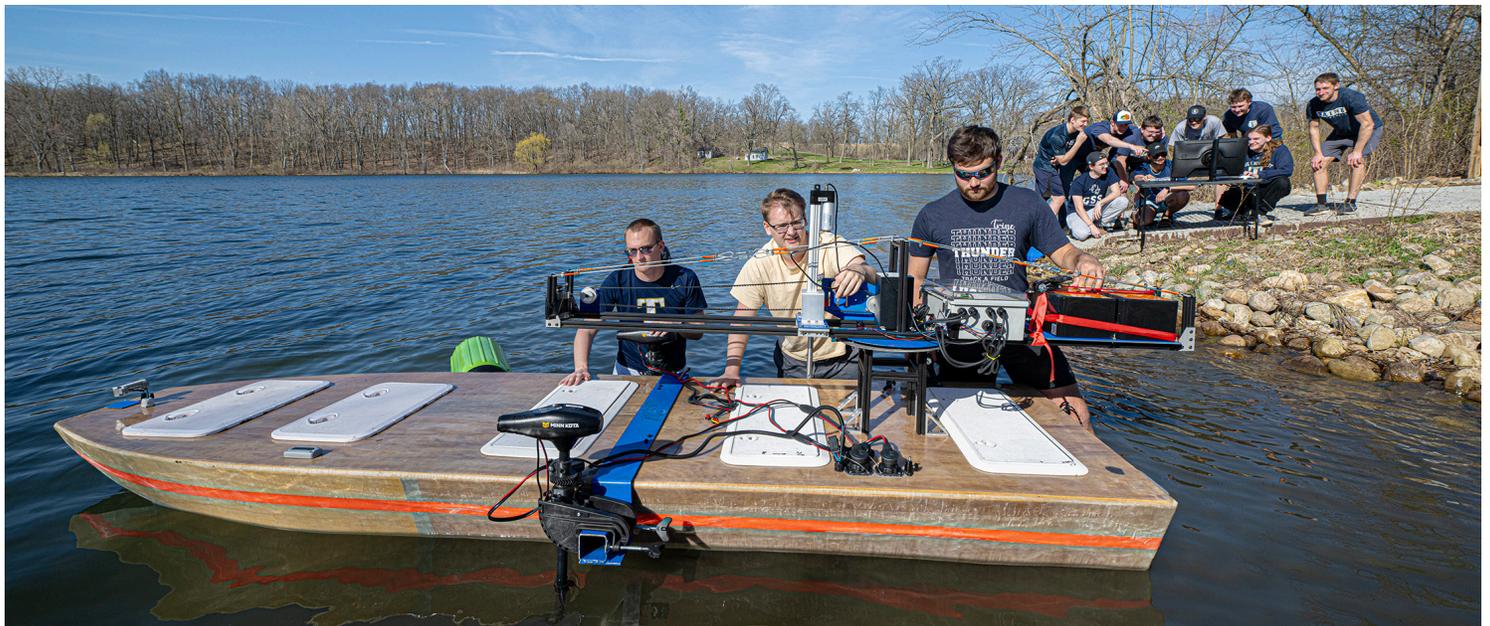
successful project work between Trine and NSWC Crane.

Cutting-edge equipment and solutions

The funding allowed Trine University to purchase state-of-the-art equipment used to aid in the design and build of LPVs distributed to each university participating in the challenge. In addition, each university received a sensor package as well as financial stipends to offset materials and labor.

Two Trine University student groups designed solutions for the distinct elements of the challenge: mechanical engineering students developed an LPV, and electrical and computer engineering students worked on the artificial intelligence (AI) to control the vessels.

Students on the AI team designed and built five computational fluid dynamics computers and seven AI/gaming computers, all housed in a lab they also designed inside the Steel Dynamics Inc. Center for Engineering and Computing.



For additional information contact:
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Additional connections

The collaboration expanded to the United States Naval Academy (USNA). USNA midshipmen visited NSWC Crane for three weeks to learn more about warfare centers and assist with the AIMM effort. During their internship, they spent three days at Trine University and collaborated with the Trine students.

The collaboration also has allowed the Department of Defense to connect with more students about career possibilities. As a result of their work for AIMM ICC, six Trine students, including four originally from outside the state of Indiana, have accepted positions at NSWC Crane. AIMM-ICC will incorporate a hiring event focused on recruiting students for careers in the defense industry.

“This investment will further strengthen our maritime security efforts and ensures Northeast Indiana remains a leader in defense innovation.”

Rep. JIM BANKS

“We were tasked with building each boat that would be used for the competition. With the experience we gained from the internship beforehand, we were able to build all six boats that will be used in a little under two weeks.”

MITCHELL DICKMAN, Trine University
mechanical engineering major

“This is truly a student-driven project, where everything you see in the simulation was researched, created and tested by a Trine student.”

ALEX KUTSENOK, assistant professor for
computer science and information
technology, Trine University



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