

Media Contact

Tom Bagsarian

tbagsarian@pci.org

312-428-4945



For Immediate Release

Oregon State University Team Wins 2023 PCI Big Beam Competition

CHICAGO, August 24, 2023 – Oregon State University has won the Precast/Prestressed Concrete Institute’s (PCI) 2023 Engineering Design Competition, also known as the Big Beam Competition. The national competition, in its 23rd year, teaches college students important structural engineering skills in an applied learning environment that will benefit them in their future professions.

Teams of students and a faculty advisor design, build, and test a 20-foot, precast, prestressed concrete beam. Local PCI-certified precast concrete producers mentor and fabricate the beams for the teams. Entries are judged on a variety of criteria, including the beam’s load-resisting performance in tests that simulate real-life conditions structural building and infrastructure components must endure to ensure life safety, as well as the quality of their analysis and reports, and a video overview of their project.

"PCI Big Beam competition helped students learn different perspectives compared to the knowledge gained from the classroom," said Tanarat Potisuk, faculty advisor for the winning team. "This included performing design calculations, building the beam, and observing actual behavior of the beam through the test. The results were eyeopening for them, showing that when design assumptions were well thought out and calculations were correctly executed, it could predict the actual behavior of the beam closely."

"This competition facilitates a link between engineering calculations and real-world precast concrete fabrication," added Jared Brewe, PCI’s Vice President, Technical Services, who served as a judge. "It’s exciting to see how the teams approach the problem, adapt to meet limits of their producer partner, and learn

through the process of design, fabrication, and testing. The creativity in the video submissions also demonstrates the ingenuity of these students and their excitement for the opportunity to visit and work with our producers.”

The 2023 PCI Big Beam Competition was sponsored by ALP Supply and *ASPIRE* magazine.



Overall Results

First Place: Oregon State University

Faculty Advisor: Tanarat Potisuk

Student Team: Sean Freitag, Nicholas Peterson, Kobe Wagner

PCI Producer: Knife River Prestress

Second Place: University of Minnesota Duluth

Faculty Advisor: Brock Hedegaard

Student Team: Justin Entinger, Eric Gibson, Kate McCabe, Abby Norman

PCI Producer: Molin Concrete Products

Third Place: Iowa State University

Faculty Advisor: Hartanto Wibowo

Student Team: Anisha Karki, Gata Milla, Lucas Reidel, Chandra Shekhar Lakavath

PCI Producer: Rinker Materials

Remaining finishers in alphabetical order.

University of British Columbia

Faculty Advisor: Lisa Tobber

Student Team: Alay Bhagat, Sara Darsi, Jassimrat Deol, Vishawjit Singh Gill, Navsift Kaur, Samantha Krieg, Mahya Moghadasi, Kiana Youssefian Sahzabi, Grant Shishido

PCI Producer: Rapid-Span Precast, a Limited Partnership

University of Illinois at Chicago

Faculty Advisor: Didem Ozevin

Student Team: Said Elferachi, Haider Himairi, Caitlin Koziel, Raguez Taha

PCI Producer: County Prestress

Lehigh University

Faculty Advisor: Clay Naito

Student Team: Tj Briscoe, Urinrin Otite, Constantine Patmandis

PCI Producer: High Concrete Group LLC

University of Massachusetts Amherst

Faculty Advisor: Sergio Brena

Student Team: Andrew Lochner, Lukas Souza, Omid Monshi Toussi

PCI Producer: Unistress Corporation

University of Massachusetts, Team 2

Faculty Advisor: Sergio Brena

Student Team: Joshua Govina, Thien-Thanh Nguyen, Lucia Pan, Cameron Ritchie

PCI Producer: Unistress Corporation

New Jersey Institute of Technology

Faculty Advisor: Mohamed Mahgoub

Student Team: Armin Saadegh-Vaziri, Alexander Savekin

PCI Producer: Jersey Precast

Northern Arizona University

Faculty Advisor: Robin Tuchscherer

Student Team: Anthony Eschen, Hunter McCormick, Joshua Sewell, Farrah Young

PCI Producer: Tpac

Keith Kaufman Award for Best Report

Judges consider the overall presentation of the report when deciding on a best report winner. In addition to verifying the report contains all the requested sections and required signatures, judges look for clear presentation of data, professional look and formatting, and an overall well-written report.

Oregon State University

Faculty Advisor: Tanarat Potisuk

Student Team: Sean Freitag, Nicholas Peterson, Kobe Wagner

PCI Producer: Knife River Prestress

Best Video

Requirements include a video taken of the precast concrete beam being tested. Teams are encouraged to be as creative as they wish when preparing the final video. Videos with a storyline related to the big beam competition are clear standouts and the judging committee may elect an entry to receive a best video award.

Lehigh University

Faculty Advisor: Clay Naito, PhD, PE

Student Team: Tj Briscoe, Urinrin Otite, Constantine Patmanidis

PCI Producer: High Concrete Group LLC

To see the student videos, please visit [PCI's Big Beam Channel](#) on YouTube.

About PCI

Founded in 1954, The Precast/Prestressed Concrete Institute (PCI) is a technical institute for the precast concrete structures and systems industry. PCI develops maintains, and disseminates the Body of Knowledge for the design, fabrication, and construction of precast concrete structures and systems. PCI develops consensus base standards, industry handbooks, quality assurance programs, certification, research and development projects, design manuals, continuing education and periodical publications. PCI members include precast concrete producers, erectors, suppliers, professional engineers and architects, educators, students, and industry consultants who complement the wide range of knowledge of precast concrete. For additional information, visit pci.org/howprecastbuilds.