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For Immediate Release

Precast/Prestressed Concrete Institute Announces Big Beam Competition Winners

CHICAGO, September 15, 2021 – The Precast/Prestressed Concrete Institute (PCI) announced that University of Missouri Kansas City, Team 2 (Kansas City, Mo.) has won the organization’s 2021 Engineering Student Design Competition, also known as the Big Beam Competition.

The national competition, which is in its 21st 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 act as mentors to the teams. Entries are judged on a variety of criteria, including the beam’s performance in stress tests that simulate the types of 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.

“It is a great experience just to participate in this outstanding competition,” said Thiagarajan Ganesh, faculty advisor, and professor, civil engineering, for the winning team. “I have coaxed and encouraged students to participate in it just for the learning experience alone, which itself adds so much value to the overall prestressed concrete knowledge to the students. At the University of Missouri Kansas-City we have been very fortunate to have the enthusiastic support of our local sponsor every time we approach them and are grateful for their help.”

“The Big Beam competition is an outstanding opportunity to introduce the next generation of designers to precast, prestressed concrete design and construction,” said PCI President and CEO Bob Risser. “By working with PCI member producers, the students get a hands-on educational experience as well as learning about the precast concrete industry. We hope the experience leads them to understand the benefits of precast, prestressed concrete throughout their professional careers and value of participating in PCI.”

Fewer teams than usual entered this year because of the pandemic. Each team should be recognized for participating under challenging conditions. The winning team will be recognized at the 2022 PCI Convention, March 1-5, in Kansas City, Mo.

The 2021 Big Beam competition was sponsored by ALP Supply and PCI’s *ASPIRE* magazine. Cash prizes of up to \$2000 are awarded to the top performers in efficient design, highest load capacity, and other categories.

Overall Results

First place: University of Missouri Kansas City [Team 2]; Kansas City, Missouri

Faculty advisor: Dr. Ganesh Thiagarajan, PhD

PCI producer: Coreslab Structures; Kansas City, Kansas (Terry Fleck)

Student team: Jose Luis Ramirez, Juan Carlos Plasencia Chinchay

Award: \$2000, plus other prizes

Second place: Northern Arizona University [The Reinforcers]; Flagstaff, Arizona

Faculty advisor: Robin Tuchscherer, PhD, PE

PCI producer: TPac (an EnCon Company); Phoenix, Arizona (Gabriella Wilson)

Student team: Elena Mae Reyes, Jacquolyn Crowley, Natalie Noroian, Nicole Neilson

Award: \$1750

Third place: Lehigh University; Bethlehem, Pennsylvania

Faculty advisor: Clay Naito, PhD, PE

PCI producer: High Concrete; Denver, Pennsylvania (David Schneider)

Student team: Jacob Graham, Brian Perhamus, Joshua Gordon

Award: \$1500

Remaining finishers in alphabetical order. All teams received awards of \$1000 and \$1250.

California State University, Sacramento [Herky's Big Freakin' Beam]; Sacramento, California

Faculty advisors: Eric Matsumoto, PhD, PE

PCI producer: Clark Pacific; Woodland, California (Brian Bertain)

Student team: Anton Sta. Maria, Nayef Al-Fayiz, Nour Hojeij, Javier Gaytan, Garrett Hope, Vadim Gritsak, Shaira Soliva

Florida International University [Team 1]; Miami, Florida

Faculty advisor: David Garber, PhD, PE

PCI producer: Coreslab Structures; Miami, Florida (Luis Compres)

Student team: Ryan Ocampo, Carlos Sosa Cardenas, Cesar Tapia, Dionisio Jimenez, Eryc Martinez, Leana Lu, Shannon Stever

Florida International University [Team 2]; Miami, Florida

Faculty advisor: David Garber, PhD, PE

PCI producer: Coreslab Structures; Miami, Florida (Luis Compres)

Student team: Victor Fundora, Edward Ortiz, Ma'al Abuhamid, Jonathan El Hajj, Raine Ortuzar, Luke Shafer

University of Missouri Kansas City [Team 1]; Kansas City, Missouri

Faculty advisor: Ganesh Thiagarajan, PhD

PCI producer: Coreslab Structures; Kansas City, Kansas (Terry Fleck)

Student team: Nick Shifflett, Logan Chamberlin, Christopher Bryan, Cristobal Hernandez

Best Report

The judging committee considers 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.

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Award: \$500

Best Video

Contest 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; Bethlehem, Pennsylvania

Faculty advisor: Clay Naito, PhD, PE

PCI producer: High Concrete; Denver, Pennsylvania (David Schneider)

Student team: Jacob Graham, Brian Perhamus, Joshua Gordon

Award: \$500

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

Photo caption: Jose Ramirez (left) Juan Plasencia, and Dr. Ganesh Thiagarajan of the winning Missouri Kansas City, Team 2. Photo courtesy of PCI.

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 more additional information, visit pci.org.