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For Immediate Release

Precast/Prestressed Concrete Institute Announces Winners of Annual Big Beam Competition

College students from across the country compete to create the next best precast, prestressed concrete structural beam design.

CHICAGO, September 12, 2019 – Today, the Precast/Prestressed Concrete Institute (PCI) announced that Lehigh University, Team 2 from Bethlehem, Pa., won the organization’s Engineering Student Design Competition, also known as the Big Beam Competition.

The national competition, which is in its 19th year, teaches college students important structural engineering skills in an applied learning environment they will use throughout their precast concrete construction careers.

“The PCI Big Beam Competition is an excellent opportunity to integrate a realistic design and testing experience into the class curriculum,” said Clay Naito, professor and faculty advisor for the winning team. “Lehigh University has been fortunate to participate for a number of years with the help of great local precast producers, including our 2018-19 sponsor.”

The competition involves teams of students and their faculty advisors designing, building and testing a 22-foot, precast concrete beam. Local precast concrete producers provide students with ongoing mentorship. Project 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’s easy to forget about constructability when you are looking at numbers on a computer screen, but having to think about how we would actually put this beam together opened my eyes to what needs to be considered on the design front. I am extremely grateful for the opportunity,” said Mike Drury, a member of the winning team.

“A key goal of PCI’s strategic plan calls for developing programs for future professionals – students – to become familiar with precast concrete technology in practice,” said PCI President and CEO Bob Risser, P.E. “The Big Beam contest is an outstanding example of one of those programs. The contest also offers students a hands-on learning opportunity in prestressed concrete design and performance, as well as honing students’ presentation skills and creativity in submitting their videos.”

The 2019 competition was sponsored by PCI’s *ASPIRE* magazine. Cash prizes of up to \$2000 are awarded to the top 20 finishers in efficient design, highest load capacity, and other categories.

Overall Results

First place: Lehigh University, Precasta’s Paradise, Bethlehem, Pa.

Faculty advisor: Clay Naito, PhD, PE

PCI producer: Northeast Prestressed Products; Cressona, Pa. (Troy Jenkins)

Student team: Maximilian Beedle, Aerik Carlton, Mike Drury

Award: \$2000, plus other prizes

Second place: Idaho State University, RAMA-Beam, Pocatello, Idaho

Faculty advisor: Mustafa Mashal, PhD, PE

PCI producer: Teton Prestress Concrete; Idaho Falls, Id. (Hal Simmons)

Student team: Mahesh Acharya, Alexander Gunkler, Ali Shokrgozar, Ruchin Khadka

Award: \$1750

Third place: Northern Arizona University, The B.E.A.M. Team, Flagstaff, Ariz.

Faculty advisor: Joshua Hewes, PhD, PE

PCI producer: Tpac (a Kiewit Western Company); Phoenix, Ariz. (Gabby Wilson)

Student team: Jordan Phelps, Jacob Schaniel, Christian Soutus

Award: \$1500

Fourth place (tie): The University of Alabama, Expect the Unexpected; Tuscaloosa, Ala.

Faculty advisor: Sriram Aaleti, PhD

PCI producer: Gate Precast Company; Monroeville, Ala. (Harris Carter)

Student team: Gabrielle Willis, Sumedh Sharma, Daniel Bridi Valentim

Award: \$1250

Fourth place (tie): University of Illinois at Urbana-Champaign, Urbana, Ill.

Faculty advisor: Bassem Andrawes, PhD

PCI producer: County Materials Corporation; Salem, Ill. (Rich Cooper)

Student team: Pratik Sharad Deogekar, Yen-Feng Chen, Minsoo Sung, Zige Zhang

Award: \$1250

Sixth place: Lehigh University, Team 1; Bethlehem, Pa.

Faculty advisor: Clay Naito, PhD, PE

PCI producer: Northeast Prestressed Products; Cressona, Pa. (Troy Jenkins)

Student team: Megan Dulmaine, Bowen Plogmann, Robert Witkowski

Award: \$1000

Seventh place: University of Minnesota, Duluth; Duluth, Minn.

Faculty advisor: Ben Dymond, PhD

PCI producer: Molin Concrete Products; Lino Lakes, Minn. (Paul Kourajian)

Student team: Scott Asperheim, Corey Crick, Garrett Larson

Award: \$1000

Eighth place: California State University, Sacramento, The Reinforcements, Sacramento, Calif.

Faculty advisor: Eric Matsumoto, PhD, P.Eng.

PCI producer: Clark Pacific; Woodland, Calif. (Robby Maxey)

Student team: Vitaliy Danchuk, Megan Kurtz, Fabiola Lopez, Allen Maula, Cesar Medina, Blake Nicolas, David Nguyen, Thomas Roberts, Alex Wallace

Award: \$1000

Ninth place: Colorado State University; Fort Collins, Colo.

Faculty advisor: Rebecca Atadero, PhD, PE

PCI producer: Wells Concrete; Denver, Colo. (Jake Thill)

Student team: Daniel Crump, Alphonse Fischer, Scott Verplank, Michael Pijoan, Matthew Robinson, Michael Schleicher

Award: \$1000

Tenth place: Idaho State University, Dream Beam, Pocatello, Idaho

Faculty advisor: Mustafa Mashal, PhD, PE

PCI producer: Forterra Structural Precast; Caldwell, Idaho (Jim McGuire)

Student team: David Lucyga, Blake Kleffner, Ryan Golding

Award: \$1000

Remaining finishers, in alphabetical order. All teams received awards of \$500 and \$250.

Bradley University, B⁵ Engineering, Peoria, Ill.

Faculty advisor: Mahmood Soltani, PhD

PCI producer: ICCI Illini Concrete; Tremont, Ill. (Jeff Welter)

Student team: Daniel Gulino, Tibin Musa, Anwar, Obaid Khan

Bradley University, Tiny Beam, Peoria, Ill.

Faculty advisor: Mahmood Soltani, PhD

PCI producer: ICCI Illini Concrete; Tremont, Ill. (Jeff Welter)

Student team: Adham Abu Abaileh, Abullah Almershad, Mohammad Sayyed, Sireesha Tulsi, Sayed Ahmed

Iowa State University, Shear Madness, Ames, Iowa

Faculty advisor: Hartanto Wibowo, PhD, PE

PCI producer: Forterra Pipe and Precast; Iowa Falls, Ia. (Jeffrey Butler)

Student team: Zachary Dietrich, Seyedamin Mousavi, Enrique Rubio-Delgado

University of Kansas, Lawrence, Kans.

Faculty advisor: Bob Lyon, PE

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

Student team: Matt Blessent, S. Amin Enderami, Krishan Thakkar, Michaela Butler, TJ Midiros

Minnesota State University, Mankato, Born to Break, Mankato, Minn.

Faculty advisor: Farhad Reza, PhD, PE

PCI producer: Wells Concrete; Wells, Minn. (Dustin Jones)

Student team: Jacob Voit, Robert Vukelich, Issac Fritz

University of Missouri, Kansas City, Team 1, Kansas City, Mo.

Faculty advisor: Ganesh Thiagarajan, PhD, PE

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

Student team: Gina Pedrotty, Eric Green, Brian Johnson, Konrad Skomorochow, Randy George, Marissa Sifford

University of Missouri, Kansas City, Team 2, Kansas City, Mo.

Faculty advisor: Ganesh Thiagarajan, PhD, PE

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

Student team: Jenny Huynh, Aaron Lee, Kit Nelson, Austin Ricks, Di Zhao, Qilin Fan

United States Military Academy, West Point, N.Y.

Faculty advisor: LTC Jakob Bruhl

PCI Producer: Blakeslee Prestress; Branford, Conn. (Rick Fitzgerald)

Student team: Claire Brownfield, Zade Koch

Virginia Military Institute, Lexington, Va.

Faculty advisor: Matthew Swenty, PhD, PE

PCI producer: Shockey Precast; Winchester, Va. (Chris Gray)

Student team: Uzoma Kpaduwa, Tyler Fedison, Brandon Morgan, Jake Paladino, Anthony Sposato

Best Report

Judges 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.

Best Video

Teams are required to include a video of the beam being tested. Teams are encouraged to be as creative as they wish. Videos with a storyline related to the competition are clear standouts and judges may elect an entry to receive a best video award.

Winner of Best Report and Best Video

California State University, Sacramento, The Reinforcements, Sacramento, Calif.

Faculty advisor: Eric Matsumoto, PhD, P.Eng.

PCI producer: Clark Pacific; Woodland, Cal. (Robby Maxey)

Student team: Vitaliy Danchuk, Megan Kurtz, Fabiola Lopez, Allen Maula, Cesar Medina, Blake Nicolas, David Nguyen, Thomas Roberts, Alex Wallace

Award: \$500

To see the student videos, 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 industry. PCI develops, maintains, and disseminates the information for designing, fabricating, and constructing precast structures. PCI provides technical resources, certification for companies and individuals, continuing education, as well as conducts research and development projects, conventions, conferences, awards programs, and much more. PCI members include precast concrete manufacturers, companies that provide products and services to the industry, precast concrete erectors, and individual members such as architects, consultants, contractors, developers, educators, engineers, materials suppliers, service providers, and students.