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For Immediate Release

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

University students from across the country vie to create the next best precast, prestressed concrete structural beam design in hands-on learning experience

CHICAGO - September 12, 2018 – Today, the Precast/Prestressed Concrete Institute (PCI) announced that Saint Martin's University (Lacey, Wash.) won the organization's Engineering Student Design Competition, also known as the Big Beam Contest.

The national competition, which is in its 13th year, was created to teach university students important structural engineering skills in an applied learning environment that will translate to their future professions.

"This competition is an opportunity for students to apply classroom theory to real-world design, work with professionals, validate equations with physical testing, and execute a project to completion as a team," said Jill Walsh, Saint Martin's University assistant professor and faculty advisor of one of this year's teams said.

The competition involves teams of students, along with a faculty advisor, 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 analyses and reports and a video overview of their project.

"This competition has provided the opportunity to learn about the precast/prestressed concrete industry in a hands-on approach outside of the classroom," said Jarad Roschi, one of the captains of the winning team.

"One of the pillars of PCI's ongoing efforts to improve the built environment with high-quality, resilient systems is our relationship with the education community," said PCI President Bob Risser, P.E. "There is no better classroom than one that provides a hands-on learning environment along with the opportunity to partner with industries students may be a part of in the future. We are impressed with and proud of the response we got from this year's entries."

The 2018 competition was sponsored by <u>GCP Applied Technologies</u>, <u>PTAC Consulting Engineers</u>, and <u>PCI's Aspire magazine</u>. Cash prizes of up to \$2000 are awarded to the top 20 performers in efficient design, highest load capacity, and other categories.

Overall Results

<u>First place:</u> Saint Martin's University [Snap Crackle Pop]; Lacey, Wash.

Faculty advisor: Jill Walsh, PhD, PE

PCI producer: Concrete Technology Corporation; Tacoma, Wash. (Austin Maue) Student team: Jarad Roschi, Joel Rodgers, Tyler Sloan, Carthney Laukon, Jesse

San Nicolas, Luis Camacho, Turner Kreman, Chase Weeks

Points: 57

Award: \$2000, plus other prizes

<u>Second place:</u> Northern Arizona University [Breaking Beams]; Flagstaff, Ariz.

Faculty advisor: Robin Tuchscherer, PhD, PE

PCI producer: TPAC (an Encon company); Phoenix, Ariz. (Gabby Wilson) Student team: Roy Crouch, Stephen Gergal, Fernando Rojo, Brandy Wagoner

Points: 56.25 Award: \$1750

Third place: The University of Alabama [Alabeama]; Tuscaloosa, Ala. Faculty

advisor: Sriram Aaleti, PhD

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

Student team: Sumedh Sharma, Daniel Valentim, Emily Gould, Gabrielle Willis

Points: 54.75 Award: \$1500

Fourth place: Florida International University [Team 1]; Miami, Fla.

Faculty advisor: David Garber, PhD, PE

PCI producer: Coreslab Structures; Medley, Fla. (Luis Compres)

Student team: Daniel Castillo, Charmaine Emanuels, Ivan Reyes, Fabio Baldini,

Andrei Perim Points: 53.25 Award: \$1250

Fifth place: University of Notre Dame; Notre Dame, Ind.

Faculty advisor: Yahya Kurama, PhD

PCI producer: Strescore, Inc.; Southbend, Ind. (Adam Reihl)

Student team: Gavin Chamberlain, Sydni Clark, Daniel Fisk, Chris Garcia, Julian

Mancini, Kathleen McKeon, Olivia Perham, Andrew Rossi

Points: 53 Award: \$1000

<u>Sixth place:</u> University of Minnesota Duluth [Team 1]; Duluth, Minn.

Faculty advisor: Ben Dymond, PhD

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

Student team: Connor Mills, Ethan Herberg, Lucas Kaari

Points: 52.75 Award: \$1000

Seventh place: University of Kansas [Team 3]; Lawrence, Kans.

Faculty advisor: Bob Lyon, PE

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

Student team: Liba Daniel, Jae Kim, Pratik Mishra, Riddhik Naik, Vanessa Notario

Points: 51 Award: \$1000

<u>Eighth place:</u> United States Military Academy; West Point, N.Y.

Faculty advisor: MAJ Lyle R Milliman

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

Student team: Evan Pape, Benjamin Parmer

Points: 49.5 Award: \$1000

Ninth place: University of Washington [Project Vulcan]; Seattle, Wash.

Faculty advisor: John Stanton, PhD

PCI producer: Concrete Technology Corp.; Tacoma, Wash. (Austin Maue)

Student team: Sam Turner, Hao Zhuang, Lionel Mizero

Points: 48.5 Award: \$1000

Tenth place: Lehigh University [Team 2]; Bethlehem, Pa.

Faculty advisor: Clay Naito, PhD, PE

PCI producer: J&R Slaw, Inc; Lehighton, Pa. (Jeremy Klotz) Student team: Matthew Mutti, Michael Duffy, Henry Paul

Points: 48.25 Award: \$1000

Eleventh place: University of Wisconsin, Milwaukee [D.A.V.E.]; Milwaukee,

Wis.

Faculty advisor: Jian Zhao, PhD

PCI producer: Spancrete; Valders, Wis. (Randy Neumeyer)

Student team: Dallas Martin, Andrew Szulczewski, Victor Ramirez, Ethan Smith

Points: 47 Award: \$500

<u>Twelfth place:</u> Lehigh University [Team 1]; Bethlehem, Pa.

Faculty advisor: Clay Naito, PhD, PE

PCI producer: J&R Slaw, Inc; Lehighton, Pa. (Jeremy Klotz) Student team: Jayne Marks, Kyle Root, Nicholas Swank

Points: 45 Award: \$500

Thirteenth place: Idaho State University; Pocatello, Idaho

Faculty advisor: Mustafa Mashal, PhD, PE

PCI producer: Forterra Structural Precast; Salt Lake City, Utah (James McGuire) Student team: Jared Cantrell, Karma Gurung, Maximilian Casanova, Christopher

Clauson, Henrik Karstens

Points: 44.75 Award: \$500

<u>Fourteenth place:</u> Florida International University [Team 2]; Miami, Fla.

Faculty advisor: David Garber, PhD, PE

PCI producer: Coreslab Structures; Medley, Fla. (Luis Compres)

Student team: Mohammed Alalawi, Frandy Manasse, Rozita Mazaheri, Amir

Sadeghnejad, Rutambara Sonawane

Points: 43.75 Award: \$500

Fifteenth place: Minnesota State University, Mankato; Mankato, Minn.

Faculty advisor: Farhad Reza, PhD, PE

PCI producer: Wells Concrete; Wells, Minn. (Dustin Jones)
Student team: Padam Dhungana, Khada Dhungana, Issac Fritz

Points: 41 Award: \$500

<u>Sixteenth place (tie):</u> Colorado State University; Fort Collins, Colo.

Faculty advisor: Rebecca Atadero, PhD, PE

PCI producer: Plum Creek Structures; Littleton, Colo.

Student team: Aatir Faroog, Abdullah AlGasem, Claudia Quezada, McKenzie

Flahertv. Jordan Illian

Points: 38.5 Award: \$250

Sixteenth place (tie): Montana State University; Bozeman, Mont.

Faculty advisors: Michael Berry, PhD

PCI producer: Missoula Concrete Construction, Inc.; Missoula, Mont. (Adam Bauer)

Student team: Adam Sticka, Sam Wilkes, Dylan Nisbet

Points: 38.5 Award: \$250

Eighteenth place: University of Kansas [Team 1]; Lawrence, Kans.

Faculty advisor: Bob Lyon, PE

PCI producer: Coreslab Structures; Kansas City, Kans. (Terry Fleck) Student team: Lavanya Bala, Pooya Grayli, Sarah Pippen, Tristan Yount

Points: 36.5 Award: \$250

Nineteenth place: University of Kansas [Team 2]; Lawrence, Kans.

Faculty advisor: Bob Lyon, PE

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

Student team: Alireza Bahadori, McKayla Blackhurst, Duncan MacLachlan, Danqing

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Points: 24.25 Award: \$250

Twentieth Place: California State University, Sacramento; Sacramento, Calif.

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

PCI producer: Clark Pacific; West Sacramento, Calif. (Glenn Underwood) Student team: Lal Sah, Richard Ly-Lee, Maxwell Hampton, Raju Sah, Ram Sah,

Luis Martin, Asia Al-Maliki, Monil Singh

Points: 22 Award: \$250

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.

Northern Arizona University [Breaking Beams]; Flagstaff, Arizona

Faculty advisor: Robin Tuchscherer, PhD, PE

PCI producer: TPAC (a Kiewit Western Company); Phoenix, Ariz. (Gabby Wilson) Student team: Roy Crouch, Stephen Gergal, Fernando Rojo, Brandy Wagoner

Award: \$500

Best Video

Contest requirements include a video taken of the 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.

University of Notre Dame; Notre Dame, Ind.

Faculty advisor: Yahya Kurama, PhD

PCI producer: Strescore, Inc; Southbend, Ind. (Adam Reihl)

Student team: Gavin Chamberlain, Sydni Clark, Daniel Fisk, Chris Garcia, Julian Mancini,

Kathleen McKeon, Olivia Perham, Andrew Rossi

Award: \$500

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 industry. PCI develops, maintains, and disseminates the body of knowledge 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.