

PCI Announces 2014 Big Beam Contest Winners

The Student Education Judging Committee recently selected the winners of the Engineering Student Design Award, also known as the Big Beam Contest. First-place winners from each of the six PCI zones, along with the international entries, considered as zone 7, competed for the overall championship.

PCI's Student Education Committee (Dr. Sergio Breña, Chair) organizes the Big Beam Contest, sponsored by SIKA Corp., and assigned the judging committee (Dr. Richard Miller, Chair). The objective is for teams of students to fabricate and test a precast/prestressed concrete beam with the help of local precast concrete PCI Producer Members. Prizes are awarded to the top performers in each zone in consideration of efficient design, highest load capacity, and other categories.

The first-place winner in each zone enters the national competition. The overall winners and zonal results are listed below.

National Competition

First place: Oregon State University; Corvallis, Oregon (Zone 1)

Faculty advisor: Keith Kaufmann, PhD, PE

PCI producer: Knife River Corporation - Northwest; Harrisburg, Oregon (Keith Kaufmann, PhD, PE)

Student team: Luke Cressman, Drew Nielson, Sandy Spencer, Jarrett Yanagida

Award: \$2000

Second place: University of Toledo; Toledo, Ohio (Zone 4) *

Faculty advisor: Douglas Nims, PhD

PCI producer: Stress-Con Industries; Kalamazoo, Michigan (Brian Curtis)

Student team: John Morganstern, Kyle Corbin, Richard Crace, Khalid Al-Fahim, Owjan Hashtroodi

Award: \$1750

Third place: University of South Florida (Team 2); Tampa, Florida (Zone 6)

Faculty advisor: Rajan Sen, PhD

PCI producer: Standard Concrete Products; Tampa, Florida (John Robertson, PE)

Student team: Daniel Buidens, Thomas Meagher, Ryan Fiegek, Cory Hill, Brittany Dugan, Zuly Garcia

Award: \$1500

Fourth place: Lehigh University (Team 1); Lehigh, Pennsylvania (Zone 5)

Faculty advisor: Clay Naito, PhD

PCI producer: Northeast Prestressed Products, LLC; Cressona, Pennsylvania (Troy Jenkins)

Student team: Tugce Akbas, Soham Mukherjee, Xudong Zhao

Award: \$1250

National Competition (cont.)

Fifth place: University of Missouri-Kansas City (UMKC), Kansas City , Missouri & Missouri University of Science and Technology (Missouri S&T), Rolla, Missouri (Zone 3)

Faculty advisors: Ganesh Thiagarajan, PhD (UMKC), John Myers, PhD (Missouri S&T)

PCI producer: Coreslab Structures (KANSAS) Inc.; Kansas City, Kansas (Mark Simpson)

Student team: Timothy Hines (UMKC), Kristen Reynolds (UMKC), Mayuri Patil (UMKC), Eli Hernandez (Missouri S&T), Alex Griffin (Missouri S&T), Hayder Alghazali (Missouri S&T), Kaylea Smith (Missouri S&T)

Award: \$1000

Sixth place: Western University; London, Ontario, Canada (Zone 7)

Faculty advisor: Maged A. Youssef, PhD, P.Eng.

PCI producer: Prestressed Systems Inc.; Windsor, Ontario (Nebojsa Mladenovic, LEL)

Student team: Ahmed Elshaer, Ahmed Mansour Ibrahim, Aiham Adawi, Amal Elawady, Connell Miller, Mohamed Hamada, Moustafa Aboutabikh, Yamen Ibrahim Elbahy

Award: \$1000

Zone 1

First place: Oregon State University; Corvallis, Oregon

Faculty advisor: Keith Kaufmann, PhD, PE

PCI producer: Knife River Corporation - Northwest; Harrisburg, Oregon (Keith Kaufmann, PhD, PE)

Student team: Luke Cressman, Drew Nielson, Sandy Spencer, Jarrett Yanagida

Award: See national competition

Second place: California State University, Sacramento; Sacramento, California

Faculty advisor: Eric Matsumoto, PhD

PCI producer: Clark Pacific; West Sacramento, California (Chad Saunders)

Student team: Blake Dolve, Laurence Sanati, Gaurav Rali

Award: \$750

Third place: Northern Arizona University; Flagstaff, Arizona

Faculty advisor: Robin Tuchscherer, PhD, PE

PCI producer: Tpac; Phoenix, Arizona (Abdullah Kassab)

Student team: Wael Alqattan, Chad Dietrich, Mengxi Du

Award: \$500

Fourth place: University of California, San Diego; San Diego, California*

Faculty advisor: Jose Restrepo, PhD

PCI producer: Clark Pacific; Irwindale, California (Greg Surmi)

Student team: Ricardo Romero, Ramon Aguilar, Daniel Recio, Andres Cuevas-Macias, Dustin Wu, Salman Sami, Kashi Khorasani

Award: \$250

Fifth place: University of Washington; Seattle, Washington

Faculty advisor: John Stanton, PhD

PCI producer: Concrete Technology Corporation; Tacoma, Washington (David Chapman)



Student team: Matt Sisley, Nick Jacoby, Lucas Whitesell, Bryce Lumpkin

Zone 2

No entries

Zone 3

First place: University of Missouri-Kansas City (UMKC), Kansas City , Missouri & Missouri University of Science and Technology (Missouri S&T), Rolla, Missouri (Zone 3)

Faculty advisors: Ganesh Thiagarajan, PhD (UMKC), John Myers, PhD (*Missouri S&T*)

PCI producer: Coreslab Structures (KANSAS) Inc.; Kansas City, Kansas (Mark Simpson)

Student team: Timothy Hines (UMKC), Kristen Reynolds (UMKC), Mayuri Patil (UMKC), Eli Hernandez (Missouri S&T), Alex Griffin (Missouri S&T), Hayder Alghazali (Missouri S&T), Kaylea Smith (Missouri S&T)

Award: See national competition

Second place: Minnesota State University, Mankato; Mankato, Minnesota

Faculty advisor: James Wilde, PhD

PCI producer: Wells Concrete; Wells, Minnesota (Gregg Jacobson)

Student team: Chase Radue, Jerry Schimmel

Award: \$750

Zone 4

First place: University of Toledo; Toledo, Ohio *

Faculty advisor: Douglas Nims, PhD

PCI producer: Stress-Con Industries; Kalamazoo, Michigan (Brian Curtis)

Student team: John Morganstern, Kyle Corbin, Richard Crace, Khalid Al-Fahim, Owjan Hashtroodi

Award: See national competition

Second place: University of Wisconsin - Milwaukee; Milwaukee, Wisconsin

Faculty advisor: Jian Zhao

PCI producer: Spancrete; Valders, Wisconsin (Randy Neumeyer)

Student team: M. Reza Moini, Justin Flickinger, Brandon Bosch, Brent Kriha, Seth Walsdorf

Award: \$750

Third place: University of Notre Dame; Notre Dame, Indiana (Zone 4)

Faculty advisor: Yahya Kurama, PhD, PE

PCI producer: StresCore Inc.; South Bend, Indiana (Jason Reihl)

Student team: Tyler Kiefer, Martin Le, Paul Rodriguez, Roberto Sosa, Robert Devine, David Terry, Steve Sanjay

Award: \$500

Zone 5

First place: Lehigh University (Team 1); Lehigh, Pennsylvania (Zone 5)

Faculty advisor: Clay Naito, PhD

PCI producer: Northeast Prestressed Products, LLC; Cressona, Pennsylvania (Troy Jenkins)

Student team: Tugce Akbas, Soham Mukherjee, Xudong Zhao

Award: See national competition

Second place: Lehigh University (Team 1); Lehigh, Pennsylvania (Zone 5)

Faculty advisor: Clay Naito, PhD

PCI producer: Northeast Prestressed Products, LLC; Cressona, Pennsylvania (Troy Jenkins)

Student team: Alexander Niewiarowski, Evan Mullen, Conor Thompson

Award: \$750

Zone 6

First place: University of South Florida (Team 2); Tampa, Florida

Faculty advisor: Rajan Sen, PhD

PCI producer: Standard Concrete Products; Tampa, Florida (John Robertson, PE)

Student team: Daniel Buidens, Thomas Meagher, Ryan Feigel, Cory Hill, Brittany Dugan, Zuly Garcia

Award: See national competition

Second place: University of South Florida (Team 1); Tampa, Florida

Faculty advisor: Rajan Sen, PhD

PCI producer: Standard Concrete Products; Tampa, Florida (John Robertson, PE)

Student team: Ivan Dimitrov, Jack Waldron, Robert Zengal, Alexandra Reid, Yufei Chai, Bartholomew Smith

Award: \$750

Third place: North Carolina State University (Team 1); Raleigh, North Carolina

Faculty advisor: Rudi Seracino, PhD

PCI producer: Tindall Corporation - Virginia Division; Petersburg, Virginia (Jeffrey Lepard)

Student team: Anjali Guli, Lucas Guaderrama, Pavan Chigullapally, Griffith Shapack, Zachary Van Brunt, Baishali Das

Award: \$500

Fourth place: North Carolina State University (Team 2); Raleigh, North Carolina

Faculty advisor: Rudi Seracino, PhD

PCI producer: Metromont Corporation; Richmond, Virginia

Student team: Bryant Miller, Amir Botras, Harmid Kazem, Armita Mohammad, Omar Khalaf Alla, Paul Rosenbeck

Award: \$250

Fifth place: University of North Florida / Civil Engineering; Jacksonville, Florida

Faculty advisor: Adel EISafty, PhD, PE, P.Eng.

PCI producer: Gate Precast Company; Jacksonville, Florida (Tom Newton)



Student team: Ashdon Mills, Krickstein Torres, Chad Baumann, Lejla Muminovic, Maria Ruiz Quesada, Charles Sornberger, Alex Goetz

Zone 7

First place: Western University; London, Ontario, Canada

Faculty advisor: Maged Youssef, PhD

PCI producer: Prestressed Systems Inc.; Windsor, Ontario (Nebojsa Mladenovic)

Student team: Ahmed Elshaer, Ahmed Monsour, Aiham Adawi, Amal Elawady, Connell Miller, Yamen Ibrahim Elbahy, Mohamed Hamada, Moustafa Aboutabik

Award: See national competition

Second place: University of Manitoba; Winnipeg, Manitoba, Canada

Faculty advisor: Dagmar Svecova, PhD, P.Eng.

PCI producer: Armtec; Winnipeg, Manitoba, Canada (Walter Meadus)

Student team: David Amorim, Matthew Lynch

Award: \$750

Third place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 7); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Tumen-Ulzii.T, Altanshagai.B, Todrol.A, Munkhmandakh.M

Award: \$500

Fourth place: University of Toronto; Toronto, Ontario, Canada

Faculty advisor: Paul Gauvreau, PhD

PCI producer: Coreslab Structures; Dundas, Ontario, Canada (Sonia Saan)

Student team: Rami Mansour, Amos Chen, Karl Shao, Xi Li

Award: \$250

Fifth place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 4); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Urnaa, Ariuka, Baysaa, Oyunbat

Sixth place: Fanshawe College; London, Ontario, Canada

Faculty advisors: Solomon Asantey, PhD, P. Eng.

Amneh Kalloush, M., Eng., P. Eng.

PCI producer: The Prestressed Group (PSI); Windsor, Ontario, Canada (Nebojsa Mladenovic)

Student team: Ryan Quan, Shawn Sikorski, David Strydonck, Alex Williams

Seventh place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 5); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Khuvilai Erdene, Delgerbaatar Myagmarsuren, Bulgan Daalkhai,

Erdenebaatar Luvsansharav



Zone 7 (cont.)

Eighth place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 8); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Uchral, Erdenebaatar, Oyuntuya, Oyun-Erdene, Gantulga, Bayarbat

Ninth place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 6); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Khongor.B, Khoszul.T, Zolzaya.B, Munkhtsetseg.M, Ayush.B, Riimed.O, Temujin.J

Tenth place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 2); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Erdenee, Tuul, Sainaa, Naska, Amгаа

Eleventh place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 1); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Zooloo, Zulaa, Uka

Twelfth place: Darkhan School of Technology, Mongolian University of Science and Technology (Team 3); Ulaanbaatar, Mongolia**

Faculty advisor: M.R. Hansen, PhD, South Dakota School of Mines & Technology

Student team: Baagii, Bayaraa, Moogii, Tseegii

Best Report

Zone1: University of California, San Diego; San Diego, California*

Faculty advisor: Jose Restrepo, PhD

PCI producer: Clark Pacific; Irwindale, California (Greg Surmi)

Student team: Ricardo Romero, Ramon Aguilar, Daniel Recio, Andres Cuevas-Macias, Dustin Wu, Salman Sami, Kashi Khorasani

*New school to competition

**Exception granted to PCI producer member requirement due to location. Concrete supplied under supervision of Dr. M.R. Hansen

