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 Jackobson)
  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 ElSafty, PhD, PE, P.Eng.
PCI producer: Gate Precast Company; Jacksonville, Florida (Tom Newton)
Zone 7

**First place: Western University; London, Ontario, Canada**
Faculty advisor: Maged Youssef, PhD
PCI producer: Prestressed Systems Inc.; Winsor, 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
   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: Soloman Asantey, PhD, 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 Myamgamar, Bulgaa Daalkhai, Erdenebaatar Luvsanharav
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

**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, Amgaa

**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**

**Zone 1:** 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