

PCI Journal announces authors of award-winning papers for 2015



M. Ataur Rahman



Sri Sritharan



Christopher M. Vanek



Victor Ryzhikov



Bijan Khaleghi



Stephen Seguirant



Brian J. Smith



Yahya C. Kurama



Samuel D. Keske



D. Eric Miller

PCI's Journal Awards Committee has named the winners of the 2015 *PCI Journal* awards.

This year's Martin P. Korn Award goes to M. Ataur Rahman and Sri Sritharan for their March–April 2015 paper, “Seismic Response of Precast, Posttensioned Concrete Jointed Wall Systems Designed for Low- to Midrise Buildings Using the Direct Displacement-Based Approach.” This research builds on previous work for posttensioned shear walls to support an expanded use of prestressed concrete for seismic applications in low- and midrise buildings. The Martin P. Korn Award (named in honor of the first executive director of PCI) recognizes the paper that offers the greatest contribution to the advancement of precast and prestressed concrete in the area of design and research.

Christopher M. Vanek, Victor Ryzhikov, Bijan Khaleghi, and Stephen Seguirant received the Robert J. Lyman Award for the January–February 2015 article “Restoring a Collapsed Span over the Skagit River.” The project highlighted the cost effectiveness and schedule advantages of prestressed concrete to replace a damaged major arterial bridge. The paper illustrated the cooperation among design, construction, and fabrication to achieve exceptional results. The Robert J. Lyman Award goes to the paper that offers the greatest contribution in the area of plant production, site erection, or general construction using precast and prestressed concrete.

“Seismic Design Guidelines for Solid and Perforated Hybrid Precast Concrete Shear Walls” in the Summer 2014 issue won the 2015 Charles C. Zollman Award. This research complements previous efforts to use precast, posttensioned concrete walls for seismic design by providing clear and direct design guidance. Brian J. Smith and Yahya C. Kurama received the award, which goes to the best state-of-the-art precast and prestressed concrete paper.

The 2015 George D. Nasser Award, which recognizes young authors 40 years of age or younger who write outstanding papers on design, research, production, or construction, went to Samuel D. Keske and D. Eric Miller for the article “Live-Load Response of In-Service Bridge Constructed with Precast, Prestressed Self-Consolidating Concrete Girders” in the Fall 2014 issue. This full-scale evaluation of in-service bridge girders demonstrated that self-consolidated concrete performed comparably to conventional concrete in bridge girders, thus expanding the potential market and answering concerns about the use of self-consolidating concrete.

Winners will be recognized at the 2015 PCI Fall Committee Days and Membership Conference, October 15–18, in Louisville, Ky.

NORMAN L. SCOTT PROFESSIONAL ENGINEER AWARD CALL FOR NOMINATIONS

In 2013, Norm Scott died unexpectedly. He was an icon of the precast/prestressed concrete industry. To honor his legacy, PCI has established the Norman L. Scott Professional Engineer Award. The award will next be presented at the 2016 PCI Convention and National Bridge Conference at The Precast Show in Nashville, Tenn. Nominations are being accepted until November 2, 2015. An official application form is available at https://www.pci.org/Publications/Submissions_Center/. For more information, contact Rebecca Coleman at bcoleman@pci.org or (312) 583-6783.

CALL FOR STUDENT RESEARCH POSTERS FOR 2016 CONVENTION

PCI is now accepting abstracts for student research posters for a session at the 2016 PCI Convention and National Bridge Conference at The Precast Show, March 1–5, in Nashville, Tenn. Abstracts are due by September 25, 2015.

All abstracts and student posters should relate to the design, analysis, materials, production, erection, sustainable benefits, or maintenance and/or repair of precast concrete. Case studies, research, and project profiles are welcome. Abstracts will be peer reviewed, and final posters will be displayed during the exhibition at the convention. Up to 10 travel awards of \$500 are available.

Abstracts of 200 words or fewer must be submitted via email at education@pci.org. For more information, go to http://www.pci.org/Education/Student_Education/. For inquiries, contact Alex Morales at amorales@pci.org.

BACK TO SCHOOL WITH THE PCI FOUNDATION



Marty McIntyre
PCI Foundation
Executive Director

This is always an exciting time of year for people involved with the PCI Foundation. The summer is coming to a close, and schools are preparing to welcome back students and start their new programs. This fall will mark the ninth year that the PCI Foundation has sponsored programs at universities. At press time, we were preparing for four programs at schools of architecture, engineering, and construction management for the fall semester.

We have learned a lot in the years since we first started working with colleges and universities. One of the chief lessons has been the importance of our local partners in making the dedicated educational program concept work. Each program has a regional group, producer, or producers who work closely with the professors to provide students with a hands-on experience. Without local partners, the PCI Foundation programs would be just another class, and not an especially memorable one.

Students who have an opportunity to get out of the classroom and spend time in the plant, jobsite, or design firm not only learn new things in a different way, they also are more likely to retain what they learn. Imagine learning to ride a bicycle through reading and lectures. It would not be as effective as hopping on the bike and pedaling fast. The local partner in the mix is the parent, keeping a steady grip and pushing the rider to learn new things.

In addition to retaining the knowledge, the local partner gives the students access to real-world and real-time materials and jobs. The partnership of Wells Concrete and Minnesota State University at Mankato is a great example. Throughout the semester, Wells employees from several departments worked with engineering and construction management students, all focusing on a current Wells project. This gives the students a well-rounded understanding of the material and gets them in the field, seeing how the work of one team member affects others.

This kind of up-close, personal experience, partnered with hands-on learning, is one of the ways the PCI Foundation program helps students develop critical thinking skills. Students begin to understand the logical connections between ideas and use the knowledge they can to solve problems systematically.

Our theory is that by learning about precast concrete during their college years, the students will design with precast concrete as they progress. Critical thinking skills can be leveraged wherever students end up. In the classroom, students are taught not just to rely on memory and attention. A goal of hands-on learning is the expectation that students will learn to make decisions that can effect a desired outcome.

Rules for 2016 Big Beam Contest released

PCI's Big Beam Contest, sponsored by Sika, is an engineering student competition designed to give graduate and undergraduate students real, in-plant experience while they design a concrete beam to competition specifications. The rules, published by the PCI Student Education Committee, have been released for 2016. The 2016 competition marks a return to a single-point load at the midspan of the beam, and participants are encouraged to read through the rules carefully. The new rules are available online at www.pci.org/bigbeam.

Schultes named executive director, Central Atlantic Bridge Associates

Central Atlantic Bridge Associates (CABA) has appointed Monica Schultes its executive director.

"With the retirement of Hank Bonstedt, we are pleased to be moving forward," says Jamie Van Buren, president of PennStress.

Schultes is not new to the precast/prestressed concrete industry. She spent 13 years as director of the Mid-Atlantic Precast Association and several years with a precast concrete manufacturer. Her experience spans the technical, business, and marketing sides of the industry. In her new role, Schultes will represent the prestressed bridge industry in the Central Atlantic states as liaison to departments of transportation, consulting engineers, and academia.

Schultes has a degree in civil engineering and an MBA in marketing from Villanova University. She is also a licensed professional engineer. She started her career with the Delaware Department of Transportation and has worked as a consulting engineer in positions of project management and marketing.

PCI welcomes new plant auditors

PCI is in the process of training several new plant auditors from a new audit firm, Professional Service Industries Inc. (PSI). Should your plant receive a visit from a PSI auditor, please welcome them and provide any requested information. As with all plant audits, an audit appraisal form will be distributed at the end of each plant audit. This form should be completed as soon as possible after the conclusion of the audit by a plant representative who attended the audit closing meeting.

Forms should be emailed to qualityprograms@pci.org.

PCI to hire new manager for codes and standards

PCI is hiring a manager for codes and standards, reporting to the technical activities managing director, Jason Krohn, at PCI headquarters in Chicago, Ill. The codes and standards manager will be responsible for strategic and tactical management of PCI activities relating to the development and improvement of codes and standards that affect the precast concrete structures industry.

As a member of the PCI management team, the individual will manage programs and projects, coordinate volunteer committee work, and support strong organizational performance. As a member of the PCI technical team, the position will provide leadership, guidance, and perspective on major technical issues confronting the industry and the institute. He or she will work closely with other functional leaders in PCI, both staff and volunteer, in coordinating the institute's technical activities.

The PCI Staff Technology Development area comprises PCI's Technical, Research, and Code Development Programs. Guidance, direction, and substantial technical support for these programs is provided by the PCI Technical Activities Council, Research and Development Council, and Transportation Activities Council, each of which has a robust committee structure, augmented by PCI Staff and contracted technical assets.

PCI's Code Development Program is dedicated to developing and improving code requirements for buildings and transportation structures in the United States. It is conducted in close collaboration with ACI, ASCE, AASHTO, ASTM, ICC, and other associations.

The candidate for this job must have a BS in civil or structural engineering or construction management or an equivalent degree. He or she must also be a registered professional engineer or engineer-in-training with at least five years of relevant engineering experience.

For a more detailed description of the codes and standards manager position, go to http://www.pci.org/About_PCI/Careers/.

SUBSCRIPTION CHANGES

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PCI announces 2015/2016 Jenny Fellowships



Matthew Gombeda



Michael Stancik



Rafal Anay



Jacob Robole

Richard Miller, chair of the PCI Research and Development Council, is pleased to report that four \$35,000 Daniel P. Jenny Research Fellowships have been awarded for the 2015/2016 academic year. The dedicated volunteer members of the council evaluated 19 fellowship applications. Special thanks are due the PCI producer members who worked with many universities in support of their proposals. The recipients are as follows:

Simplified Blast Evaluation Tools and Guidelines for Preliminary Design of Precast Concrete Walls: Matthew Gombeda

University: Lehigh University

Faculty advisor: Clay Naito

Producer support: Metromont Corp., Greenville, S.C.

In his fellowship application, Gombeda says, "I have made it a personal goal of mine to continue participating in studies aimed at advancing the capability of structures to resist acts of terrorism and protecting human lives."

Investigating the Use of Larger-Diameter Indented Prestressing Wires for Improved Structural Performance, Reliability, and Economy: Michael Stancik

University: Kansas State University

Faculty advisor: Robert Peterman

Producer support: Metromont Corp., Greenville, S.C., and Voestalpine Nortrak Inc., Cheyenne, Wyo.

Associate support: HSM Solutions, Hickory, N.C.

Stancik says, "Working with concrete and finding new applications is vital not only to society as a whole but also to the field I am passionate about."

Performance of Double-Tee Flange Connections and Joint Leakage for Parking Structures: Rafal Anay

University: University of South Carolina

Faculty advisor: Paul Ziehl

Producer support: Metromont Corp., Greenville, S.C.

Rafal says in his fellowship application that "The Daniel P. Jenny Fellowship will encourage me to investigate the performance of shape memory alloys in concrete applications."

Experimental Investigation of Transfer Length in Hollow-Core Slabs: Jacob Robole

University: University of Minnesota

Faculty advisor: Arturo Schultz

Producer support: Molin Concrete Products, Lino Lakes, Minn.

Robole will be entering the masters program at the University of Minnesota this fall and has participated in Engineers without Borders in Guatemala.

PCI announces results of 2015 Big Beam Contest

The Student Education Judging Committee recently selected the winners of the Engineering Student Design Competition, also known as the Big Beam Contest. PCI's Student Education Committee (Sergio Breña, chair) organizes the Big Beam Contest, sponsored by Sika Corp., and assigned the judging committee (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 20 performers in consideration of efficient design, highest load capacity, and other categories.

New judging criteria for 2015 eliminated zonal competitions, and all entries competed in one North American competition. Entries were ranked by total number of points earned per the contest rules, and the first place team was from the University of Notre Dame in Notre Dame, Ind.

Overall results

First place	University of Notre Dame; Notre Dame, Ind. (zone 4)
Faculty advisor	Yahya Kurama
PCI producer	StresCore Inc.; South Bend, Ind. (Jason Reihl)
Student team	Robert Devine, Michael Brandes, David Terry, Jessica Orlando, Nicholas Bette, Ted Williams, Craig Davila, and Megan McKeon
Points Award	64.50 \$2000 plus other prizes
Second place	Oregon State University; Corvallis, Ore. (zone 1)
Faculty advisor	Keith Kaufmann
PCI producer	Knife River Corp., Northwest; Harrisburg, Ore. (Keith Kaufmann)
Student team	Karryn Johnsohn, Jason Anderson, and Curtis Blank
Points Award	59.25 \$1750
Third place	The University of Kansas (orange team); Lawrence, Kans. (zone 3)
Faculty advisor	Robert Lyon
PCI producer	Coreslab Structures Inc; Kansas City, Kans. (Terry Fleck)
Student team	Allie Wagner, Cheng Chen, Jie Wu, Andrew Hasse, Ali Abdul Baki, and Madan Neupane
Points Award	53.75 \$1500

Fourth place	University of Washington (team 2); Seattle, Wash. (zone 1)
Faculty advisor	John Stanton
PCI producer	Concrete Technology Corp.; Tacoma, Wash. (Austin Maue)
Student team	Lardo Wang, Wai Lok Chung, Suki Ngan, Yousef Alshaba, and Givens Lam
Points Award	52.00 \$1250
Fifth place	The University of Kansas (blue team); Lawrence, Kans. (Zone 3)
Faculty advisor	Robert Lyon
PCI producer	Coreslab Structures Inc; Kansas City, Kans. (Terry Fleck)
Student team	Michael Whitten, Kevin Garrett, Mohammad Bazzaz, Michael Sang, Mona Khosh, and Parisa Asadollahi
Points Award	51.25 \$1000
Sixth place	Missouri University of Science and Technology; Rolla, Mo. (Zone 3)
Faculty advisor	John Myers
PCI producer	Coreslab Structures (Missouri) Inc; Marshall, Mo. (John Brodersen)
Student team	Eli Hernandez, Kaylea Smith, and Hayder Alghazali
Points Award	50.00 \$1000
Seventh place	University of Missouri–Kansas City; Kansas City, Mo. (zone 3)
Faculty advisor	Ganesh Thiagarajan
PCI producer	Coreslab Structures Inc; Kansas City, Kans. (Terry Fleck)
Student team	Kristen Reynolds and Phanindra Kumar Kosaraju
Points Award	48.50 \$1000
Eighth place	Western University; London, ON, Canada (zone 7)
Faculty advisor	Maged A. Youssef
PCI producer	Prestressed Systems Inc.; Windsor, ON, Canada (Nebojsa Mladenovic)
Student team	Reem Tabbara, Ahmed Mansour Ibrahim, Ahmed Elshaer, Jad Atwe, Dana Elfar, Boqiang Zhu, Erdal Celap, Mohamed Mansour, Moustafa Aboutabikh, and Aiham Adawi
Points Award	48.25 \$1000

Ninth place	The University of Alabama; Tuscaloosa, Ala. (zone 6) (new)
Faculty advisor	Sriram Aaleti
PCI producer	Gate Precast; Monroeville, Ala. (Mark Ledkins)
Student team	Nathan Klenke, Andrew Lasdell, and Vidya Sagar
Points	47.25
Award	\$1000

Tenth place (tie)	Red River College; Winnipeg, MB, Canada (zone 7)
Faculty advisor	Robin Hutchinson
PCI producer	Lafarge Canada, Inc; Winnipeg, MB, Canada (Ifan Lim)
Student team	Paul Desautels and John Kliever
Points	46.00
Award	\$1000

Best report

The judging committee considers the overall presentation of the report when deciding on a best report winner. In addition to verifying that the report contains all of the requested sections and required signatures, judges look for clear presentation of data, professional look and formatting, and an overall well-written report.

Best report	University of Washington (team 2); Seattle, Wash. (zone 1)
Faculty advisor	John Stanton
PCI producer	Concrete Technology Corp.; Tacoma, Wash. (Austin Maue)
Student team	Lardo Wang, Wai Lok Chung, Suki Ngan, Yousef Alshaba, and Givens Lam
Award	\$250

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 Contest are clear standouts, and the judging committee may elect an entry to receive a best video award.

Best video	Western University; London, ON, Canada (zone 7)
Faculty advisor	Maged A. Youssef
PCI producer	Prestressed Systems Inc.; Windsor, ON, Canada (Nebojsa Mladenovic)
Student team	Reem Tabbara, Ahmed Mansour Ibrahim, Ahmed Elshaer, Jad Atwe, Dana Elfars, Boqiang Zhu, Erdal Celap, Mohamed Mansour, Moustafa Aboutabikh, and Aiham Adawi
Award	\$250

Special judges award

The judges have presented a special judges award to the University of Alabama. A first-time participant, the university finished ninth overall and had a report and video worthy of consideration for best report and best video. The judges were particularly impressed by the Lessons Learned section of both the report and video. Citing this as one of best examples they had seen of the “spirit of the contest,” the judges have singled out the University of Alabama.

Special judges award	The University of Alabama; Tuscaloosa, Ala. (zone 6)
Faculty advisor	Sriram Aaleti
PCI producer	Gate Precast; Monroeville, Ala. (Mark Ledkins)
Student team	Nathan Klenke, Andrew Lansdell, and Vidya Sagar Ronanki
Award	\$500

For a complete list of Big Beam scores and awards, visit www.pci.org/bigbeam. 

Compiled by K. Michelle Burgess (mburgess@pci.org) and Jennifer Peters (jpeters@pci.org)

MARIO J. BERTOLINI LEADERSHIP AND INNOVATION AWARD CALL FOR NOMINATIONS

To honor the legacy of Mario J. Bertolini, an icon of the precast/prestressed concrete industry, PCI has established the Mario J. Bertolini Leadership and Innovation Award. Bertolini was president of a major precast concrete manufacturer for many years and chairman of PCI in 1989. The award will be presented for the first time at the 2016 PCI Convention and National Bridge Conference at The Precast Show in Nashville, Tenn. Nominations are being accepted until November 2, 2015.

Nominations for this award should be made to the Mario J. Bertolini Leadership and Innovation Award Selection Committee and should include a letter identifying the specific characteristics and qualifications of the candidate, including examples that meet the award criteria. The official nomination form must be completed and included with this letter. A nomination form is available at https://www.pci.org/Publications/Submissions_Center/. For more information, contact Rebecca Coleman at bcoleman@pci.org or (312) 583-6783.

PCI CALENDAR

Events

For the most current information on PCI events, visit <http://www.pci.org/events>. For industry events, visit <http://www.pci.org/news/events>.

PCINE Annual Meeting

Saybrook Point, Old Saybrook, Conn.

September 14–15, 2015

2015 PCI Fall Committee Days and Membership Conference

Louisville, Ky.

October 15–18, 2015

2016 PCI Convention and National Bridge Conference at The Precast Show

Nashville, Tenn.

March 1–5, 2016

PCI Summer Conference

Spokane, Wash.

June 9–12, 2016

2016 PCI Committee Days and Membership Conference

Rosemont, Ill.

October 6–9, 2016

2017 PCI Convention and National Bridge Conference at The Precast Show

Cleveland, Ohio

February 28–March 4, 2017

2018 PCI Convention and National Bridge Conference at The Precast Show

Denver, Colo.

February 22–24, 2018

PCI personnel training and certification schools

If you have any questions about the Quality Control School schedule or need help completing a registration form, please contact PCI's director of Education and Information Systems, Alex Morales, at amorales@pci.org or (312) 360-3219. Registration forms are available at <http://www.pci.org/schools>.

Level I/II	September 1–3, 2015	Chicago, Ill.
	December 7–9, 2015	Nashville, Tenn.
Level III	December 9–12, 2015	Nashville, Tenn.