

Chapter Reports

Concrete Coaster Workshop

The Student Committee of the ACI Singapore Chapter (ACI-SC) collaborated with Singapore Polytechnic to host a Concrete Coaster Workshop on May 5, 2023. The goal of the hands-on workshop was to show students the fascinating world of concrete and its importance in modern construction and infrastructure development through an engaging activity.

The workshop commenced with a presentation on the importance of concrete and its basic components, highlighting its versatile nature and critical role in the construction industry. Attendees also learned about the trade-off between concrete workability and strength, emphasizing the importance of adhering to the provided water-cement ratio for their mixture during the hands-on session.

After the informative introduction, students began the batching process using an electronic scale in the laboratory to ensure the correct quantities of each material were used for the coaster mixture.

With their materials measured, the students proceeded to oil the silicone molds and carefully mixed water into the nonshrink grout. After achieving a consistent mixture, they placed the mixture into the molds to create one-of-a-kind coasters. Following a day of curing in the air, participants demolded their creations and were able to take them home as a memento of the workshop.

The Concrete Coaster Workshop proved to be a success, fostering a deeper understanding and appreciation for concrete studies among the participants. Both the ACI-SC Student Committee and Singapore Polytechnic are proud of their collaboration and look forward to hosting more workshops in the future to continue inspiring the next generation of civil engineers and construction professionals.



Singapore Polytechnic students measuring materials



A finished coaster

EPDACI 2023 Student Beam Contest Results

The ACI Eastern Pennsylvania & Delaware Chapter (EPDACI) held its annual student beam contest at Widener University's structures laboratory in Chester, PA, USA, on April 15, 2023. Seven teams representing four colleges participated. The contest consisted of designing and constructing the lowest-cost reinforced concrete beam spanning 3 ft (1 m) to support a midspan concentrated load of at least 4000 lb (18 kN). The beams were tested to failure, and prizes were awarded to the three lowest-cost beams to support 4000 lb or more.

Participating colleges were Universidad Nacional de Ingenieria (UNI) Peru, Widener University, University of Delaware, and Penn State University. The contest was hosted by Vicki Brown, Chair of the Widener Department of Civil Engineering. The testing was conducted by Andrew Nodolski, Widener Structural Lab technician.



Singapore Polytechnic students at the Concrete Coaster Workshop

Chapter Reports

The winning team was The Sweethearts from UNI Peru, with a failure load of 4368 lb (19.4 kN) at a cost of 6.43 USD. Team members were Moises Felix Rojas Supanta, Alexis Fernando Santiago Lira, and Antonio Sulluchuco Peña.

The second-place team was Alpha, also from UNI Peru, with a failure load of 4295 lb (19.1 kN) at a cost of 6.83 USD. Team members were Dante Miguel Loayza Hinostroza, Flavio Cesar Morales Vargas, and Lourdes Betsabe Ventocilla Meneses. Faculty advisor for the UNI teams was Max Huaynalaya Rashuaman.

Finishing in third place was The Cheapest Link from Widener University with a failure load of 4228 lb (18.8 kN) at a cost of 6.88 USD. Team members were Hunter Timmons, Anthony DeCesaris, Alex Preisier, and Theresa Kervick.

Faculty advisor was Mohamad Jilati.

Prizes were 1500 USD for first place, 1000 USD for second place, and 500 USD for third place. Trophies were awarded at the chapter's Excellence in Concrete Awards Banquet held on April 20. EPDACI would like to thank all the students and faculty advisors who participated and made the contest a success.

Concrete Fest 2023

The ACI Sanjay Ghodawat University (SGU) and Sanjay Ghodawat Polytechnic (SGP) Student Chapters and the ACI India Chapter organized Concrete Fest 2023, which was held March 27-29, 2023, at Kolhapur, Maharashtra, India. This event was about innovation and excellence in the field of



Participants at the EPDACI student beam contest



Members of the first- and second-place teams, UNI's The Sweethearts and Alpha



Winning beam



Third-place team, Widener's The Cheapest Link

concrete technology. The inaugural speech was presented by Arun Patil, Vice Chancellor, SGU.

The events included:

Eco-concrete competition—Teams were challenged to apply sustainability concepts and to use their knowledge of concrete mixture design by producing eco-concrete. Concrete cubes were checked for strength after 7 days. First-place prize of 10,000 Rs was awarded to Hemant Lohar and Pratikesh Phadtare, Rajarambapu Institute of Technology, Uran Islampur, Maharashtra, India. Second-place prize of 7000 Rs was awarded to Govindraddy Kalavagol, KLE College of Engineering and Technology, Chikodi, Karnataka, India.

Poster presentation—The primary goal of this competition was to enhance the students' presentation skills. More than 15 posters were presented. First place was awarded to Anish Jagdale and Rajashree Shinde, SGP, Kolhapur, Maharashtra, India. Second place was achieved by Pooja Joshi, Snehal Bhoite, and Sanika Jagtap from DKTE Society's Textile and Engineering Institute, Ichalkaranji, Maharashtra, India.

Model-making competition—A 2-day bridge model competition was organized by the students. Students were given time to prepare the bridge models, which were tested the next day. Guidelines for the bridge models were different for diploma and undergraduate students.

Quiz competition—This event was designed as a fun way to promote study and help improve knowledge of concrete technology. In this competition, 40 different teams competed, each with two participants. The winner was Atul Ramesh Kadam, who received a prize of 5000 Rs. Yash Miraje and Pruthivraj Varpe were the runners up and received 3000 Rs.

Training program on NDT—A hands-on training program on nondestructive testing (NDT) of concrete structures was organized by the SGU Civil Engineering Department. The workshop received an overwhelming response and interest from all the participants, which showed their enthusiasm and dedication toward their profession. More than 150 students participated.

STTP on Advanced Construction Technology—The Short-Term Training Program (STTP) on Advanced Construction Technology was an opportunity to learn about the latest advances in this field, as well as to exchange ideas and knowledge with experts in the industry.

More than 350 students and 50 faculty and consulting engineers participated in Concrete Fest 2023. Concrete Fest 2023 received financial support from Sahyadri Constructions, Pinaka Consultants, SCON Projects Pvt. Ltd, Maruthi Constructions, Mahalaxmi Ready Mix Concrete, and Dwarka Ready Mix Concrete. Also, SGU generously supported Concrete Fest 2023.



Arun Patil, Vice Chancellor, SGU, addressed the attendees of Concrete Fest 2023



Prize winners in the quiz competition



Chetan S. Patil, ACI India Chapter Director and SGU Dean, led the NDT Training Program at Concrete Fest 2023

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