

# Chapter Reports

## ACI USFQ Student Chapter: Athletic Morning

Students from the Universidad San Francisco de Quito (USFQ) Civil Engineering program, Quito, Ecuador, participated in the Athletic Morning event on March 18, 2023, organized by the university's ACI USFQ Student Chapter, which included sports competitions, recreational activities, food, and the awards ceremony. The program took place at the university's facilities and was designed to foster teamwork and camaraderie as well as to cultivate a spirit of healthy competition among the students. Soccer, rope, and volleyball tournaments were held. This gathering also served as a platform to raise awareness about the Chapter's initiatives, presenting a valuable opportunity for the ACI USFQ Student Chapter to showcase their endeavors and engage with potential new members.



Students at the ACI USFQ Student Chapter Athletic Morning

## ACI UPC Student Chapter Wins 2023 Concrete Barge Contest

Each year, the National Congress of Civil Engineering Students (CONEIC) is held in Peru, where competitions related to concrete are organized, and most of the country's universities participate. In 2023, CONEIC was held in Lima, Peru, and the competition involved designing and manufacturing a concrete barge to support the greatest amount of load without sinking. The design that met the highest "load supported/weight of the barge" ratio was the winner. The ACI Universidad Peruana de Ciencias Aplicadas (UPC) Student Chapter team, Lima, Peru, comprised five members: Aldo Escuero Cadenillas, Ayme Yabar Yucra, Katerin Cordero Marquina, Carla Vilca Huaman, and Nelvin Ruiz Candia.

The first step of the competition was to design the formwork plans using AutoCAD. Then, the stability of the design was analyzed using three-dimensional (3-D) printing. Lastly, metal formwork was manufactured. During the

mixture design, a total of eight tests had to be carried out until the final design was reached. While the students were nervous on the day of the contest, they were happy with the work that they did. The UPC barge weighed approximately 20 kg (44 lb) and supported a total load of 150 kg (331 lb), which gave an average score of 7.5. The ACI UPC Student Chapter team achieved first place in the competition with their work. As this is the first time that the ACI UPC Student Chapter has won an in-person contest, the students are very proud of their performance and happy with the results.



The ACI UPC Student Chapter team with their award for first place

## Future Concrete Construction Conference

It has become a regular aspect of the ACI Lebanon Chapter's mission to organize the Future Concrete Construction Conference in collaboration with ACI, ASTM International, and the Order of Engineers and Architects. Last year, the conference covered the topic of "Advanced Technologies in Construction." It was organized in partnership with Saint-Gobain, Cimenterie Nationale, and Sibling, sponsored by Dar Al-Handasah, and supported by Milestone Holding SAL. Local and international industry experts discussed the latest advances and new challenges in the construction industry. The main topics of interest included the implementation of Industry 4.0 technologies in construction, augmented and virtual reality, building information modeling (BIM), artificial intelligence, and 3-D printing.

During this conference, the winners of the Students Competition 2023 were announced. This competition was organized by the ACI Lebanon Chapter and sponsored by Cimenterie Nationale. Aiming to provide experience in forming and fabricating a fiber-reinforced concrete (FRC) element and to encourage creativity in engineering design predictions and analysis testing, the teams were asked to create FRC bowling balls. Eleven teams competed from six different

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universities in Lebanon competed, and they were evaluated according to mass and diameter measurements, bowling score, toughness test, and prediction and submission accuracy. The winners received certificates of recognition at the Future Concrete Construction Conference 2023, and the students with the first prize were granted a trip to attend the ACI Concrete Convention in Boston, MA, USA. The ACI Lebanon Chapter is thrilled to report that it will be announcing the 2024 Lebanon Students Competition soon and organizing another conference in September 2024 in Beirut, Lebanon.



Attendees at the Future Concrete Construction Conference



Winners of the ACI Lebanon Students Competition 2023

## 2023 ACI Student FRP Composite Beam Competition UMG Quetzaltenango Campus is named “champion”

The 2023 FRP Composite Beam Competition took place on October 29, 2023, during the ACI Concrete Convention in Boston, MA, USA. The competition consisted of undergraduate university teams from different countries that were challenged to design, construct, and test a concrete structure reinforced with fiber-reinforced polymer (FRP)

reinforcement to achieve the lowest cost-load ratio. The seven students of the Universidad Mariano Gálvez de Guatemala – Campus Quetzaltenango who participated were proclaimed the first-place winners. Effort, perseverance, and a great desire to compete were what drove the students to aim for a first-place finish in the competition, for which they had been preparing for months before. This is the first time that the Universidad Mariano Gálvez de Guatemala – Campus Quetzaltenango has been proclaimed champion in an ACI competition.



The Universidad Mariano Gálvez de Guatemala – Campus Quetzaltenango winning team

## ACI EPU Student Chapter EPU’s Graduation Fair 2023

by Lara Thaeer Gorgees

On October 26, 2023, Erbil Polytechnic University (EPU), Erbil, Iraq, hosted a fair for its recent graduates. Sponsored by Prime Minister Masrour Barzani and attended by EPU President Edrees Muhammad Taher Harki, the event was a collaborative effort spearheaded by the Career Development Center Department, ACI EPU Student Chapter, and volunteers. At the heart of this event’s success was the proactive involvement of the ACI EPU Student Chapter under the visionary guidance of Rafah Rasheed, the Chapter’s supervisor. The fair showcased the dedication and hard work of the students who played a pivotal role in organizing and coordinating the event. The Chapter’s efforts were instrumental in attracting 40 local and international companies to participate, setting the stage for students to explore various career opportunities and establish connections in the professional arena. This face-to-face interaction allowed students to learn more about the companies, understand their values, and explore potential job prospects. The event

facilitated meaningful discussions, enabling students to showcase their skills and discuss how they could contribute to the workforce. The overwhelming response from students indicated the event's success in bridging the gap between academia and the professional world.



EPU's Graduation Fair 2023

## ACI EPU Pervious Concrete Competition: A Triumph in Collaboration and Innovation

by Ahmed Shwan Omer

The ACI EPU Pervious Concrete Competition stands as a testament to the dedication of EPU students to fostering innovation and collaboration. The genesis of the competition involved extensive planning, from formulating the competition rules to securing sponsorship funds. Most of the financial support came from the ACI EPU Student Chapter, showcasing the students' commitment to propelling such initiatives forward. The competition comprised three pivotal tests—density, compression, and water passage through concrete. Teams were strategically organized into groups, each assigned specific tasks to encourage a collaborative and efficient work environment.

The event's significance was underscored by the presence of esteemed personalities, including the President of EPU, the Dean of the Engineering College, company representatives, and government officials. Community engagement and participation from 100 EPU students and groups from beyond the university's borders demonstrated the competition's broad appeal in the Kurdistan region. Taking place on the EPU campus, the competition provided not only a platform for showcasing technical skills but also an ideal setting for networking and collaboration among participants. From meticulous planning and execution to active participation and

community engagement, the competition's success echoes the spirit of innovation and collaboration among EPU students.



The ACI EPU Pervious Concrete Competition awardees

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