

Changing the World

With support from the ACI Foundation

Alvaro Ruiz Empananza and his siblings grew up involved in many construction projects at his parents' and grandparents' home in northern Spain. "We even used an excavator as part of a swimming pool construction project," Empananza said. "My father really wanted us to get hands-on experience."

The ACI Foundation selected Empananza as the 2019-2020 ACI Presidents' Fellowship recipient. Empananza decided in high school to make construction his career because of all the encouragement he was given growing up. After taking some courses in architecture and engineering prior to applying for college, he decided he liked the technical aspect of engineering. He completed his undergraduate engineering degree with honors in Spain.

He considered pursuing his master's degree in structural engineering in Münster, Germany, after having completed his bachelor's thesis there. Knowing very little of the language, Empananza was concerned. He was advised that he would have 2 years to finish his degree and pass the proficiency exam in German language. "It was hard to work in German and present in German," Empananza said. "I was also working part-time at an engineering company. It's one of the most demanding things I've done—learning German, working as an engineer, and studying for my master's degree, all at the same time." With language help from friends and hard work, he completed both the degree and the German certificate in the allotted time, finishing his master's degree among the top three best students, even though he was the only international student.

Getting Involved with ACI

Empananza was then advised to travel to the United States to write his master's thesis. After completing a semester at Florida State University, Tallahassee, FL, he decided to move to Miami, FL, to pursue his PhD. At the University of Miami, he not only did that but, in the process, became more involved with ACI. Through his advisors, Antonio Nanni and Francisco de Caso y Basalo, Empananza was encouraged to join ACI committees and present at the ACI Concrete Conventions. "I landed in Miami in January, and they told me after just a few weeks, you need to write an abstract for the upcoming ACI Concrete Convention in Anaheim, California," Empananza said. "I didn't even know what an abstract was, and now I'm going to present my



Alvaro Ruiz Empananza received the 2019-2020 ACI Presidents' Fellowship from the ACI Foundation

research work at an ACI Concrete Convention. I said, 'Let's do it.'"

Empananza presented at a special session on glass-fiber-reinforced polymers at the Convention in Anaheim, CA. "It was a great experience for my first conference presentation," he said.

His presentation was just one of the many positive experiences he had during the Convention. "Throughout the convention, Dr. Nanni helped me and a whole group of students. He helped us meet different industry leaders in the concrete world. I was able to connect with so many people and see how important ACI was. It was a very eye-opening experience," Empananza stated.

Attending more conventions, he became involved with several committees, including ACI Committee 440, Fiber-Reinforced Polymer (FRP) Reinforcement; S805, Collegiate Concrete Council-CLGE; and S806, Young Professional Activities, among others. "ACI Committee 440 is working on a new code for the design of concrete structures reinforced with FRP, my PhD research topic, so contributing to this document with my work makes me feel proud of what I'm doing. It's interesting to understand the impact from a global point of view. I'm also on two other 440 subcommittees. I try to help as much as possible," Empananza said.

Now Chair of ACI Committee S805, Collegiate Concrete Council-CLGE, Empananza stated he was honored to have been asked to serve in the role. As he became more involved in ACI, he was also asked to lead the Student Networking Reception during the ACI Concrete Convention, connecting

with students and organizing student-focused sessions. The Student Networking Reception enables students, faculty advisors, and mentors to mix in a casual and fun environment, and it is an opportunity to engage with future concrete professionals and professors.

While at the University of Miami, Empananza was advised to apply for an ACI Foundation fellowship. Several of his classmates applied as well, but all were unsuccessful the first time. “It was a little frustrating,” Empananza recalled. He was the only one to reapply, this time successfully. “I decided to try again, as I’m the sort of person to keep trying.”

He feels that the fellowship contributed greatly to his growth and academic advancement. “The fellowship enabled me to attend several conventions that I wouldn’t have been able to before,” he said. “It meant that I could be more focused on doing research and getting things done, rather than worrying about money.”

ACI Foundation Fellowships Can Open Doors

Empananza also believes that his opportunities were expanded because of the fellowship. “It really helped getting involved. You learn; you meet people who are going to change the world,” he stated. “I think volunteering on committees and that extra level of involvement opens some doors. Being involved with ACI and the ACI Foundation has definitely helped my career, and this is just the beginning.”

It was during this time that he became more aware of what the ACI Foundation provides in terms of scholarships and fellowships. When he received notification from the ACI Foundation that he was the recipient of the ACI Presidents’ Fellowship, Empananza realized that he had achieved something very important.

He feels that all scholarship and fellowship recipients should be involved with ACI and the ACI Foundation. “They have invested in you,” he stressed, “so you should give back some time and commitment.”

Empananza was invited to serve on the Development Committee of the ACI Foundation. He is now leading efforts to recruit and retain students and young professionals in ACI. “As part of these efforts, we are working on enhancing the mentorship program for students to add value to their experience in ACI and, most importantly, to their future careers in the concrete industry,” he said.

The ACI Foundation has awarded a total of \$1.8 million to date in scholarships and fellowships for students studying concrete and engineering. This has directly helped 260 students with financial support, mentorship, and internship opportunities in the concrete industry.

The ACI Foundation promotes progress, innovation, and collaboration in the concrete industry through strategic investments in research, scholarships, and ideas. Through its Scholarship Council, it supports future concrete innovators and leaders by administering fellowships and scholarships to students. The ACI Foundation awards more than \$200,000 in fellowships and scholarships annually in the name of



Alvaro Ruiz Empananza, second from right, attended the ACI Excellence in Concrete Construction Awards Gala in Cincinnati, OH, along with other fellowship recipients and ACI Foundation leadership. Twelve innovative concrete projects from around the world were celebrated at the annual gala



Rex Donahey, Babak Vafaei, and Alvaro Ruiz Empananza paused for a photo during the Student Networking Reception at the ACI Concrete Convention in Las Vegas, NV

individuals, organizations, corporations, and ACI.

The ACI Foundation relies on funding from the American Concrete Institute and from ACI members, partners, and friends. “We are grateful for the generous support from so many in the concrete industry,” said Ann Masek, Executive Director of the ACI Foundation. “We want to continue to fund students like Alvaro Ruiz Empananza. Supporting these upcoming leaders is an investment in the future of the concrete industry.”

An ACI Foundation fellowship made an impact on Empananza’s life and education. He is certain to continue making an impact on the world around him. To learn more about ACI Foundation scholarship and fellowship opportunities, visit www.ACIFoundation.org.