SFU SIMON FRASER UNIVERSITY

CONVOCATION

# SFU celebrates first cohort to graduate from the School of Sustainable Energy Engineering

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by Cindy Li

The first cohort of students from SFU's new Sustainable Energy Engineering (SEE) program is ready to take the skills they've acquired to the next level—the majority, with industry jobs in place—after receiving their degrees at Spring Convocation this week (June 8).

The SEE program was established at SFU's Surrey campus in 2019 as the first of its kind in Western Canada, created to meet the urgent need to train students as leaders in the areas of renewable energy and clean energy technology.

Students like Emma Hannaford, Danielle Arciaga and Felipe Patarroyo Singh chose the SEE program because of the potential impact they could make using the engineering skills they would acquire to create a more sustainable future. The program, set in an interdisciplinary learning environment, goes beyond equipping students with technical skills upon the completion of their degree.

“In SEE, we learn the technical skills for electrical, mechanical and software engineering, yet equally important, the program helped us recognize the need for people with diverse background and expertise to work together towards finding a solution to a challenge such as climate change,” says Hannaford, a Surrey graduate who is now developing vertical farms at Vancouver-based QuantoTech and has plans to pursue a master’s degree.

SEE also teaches their students to think critically and assess each step of a process when developing a new tool or technology.

Pictured is Emma Hannaford and Danielle Arciaga. SEE also has more than forty percent female student enrolment.

“One skill that I learned was to make good engineering judgement based on historic, current and, if it exists, future projected data to support the decisions we make to complete projects,” says Arciaga, who is now a building performance engineer-in-training (EIT) at RJC Engineers, which specializes in design for sustainability through innovative structural and building science designs that improve energy efficiency and minimize environmental impact.

Students are also introduced to policies, effective communication and how, as future technology leaders, they can help decision makers create and implement new policies for a greener future.

“Being able to communicate effectively on why certain technologies or infrastructures are needed and having this information readily available are important for policymakers and industry leaders; this way, decision makers are informed and therefore can be more confident when making new policies and implementing them,” says Patarryo Singh who starts a position as an energy management engineer-in-training (EIT) with Burnaby’s PRISM Engineering, a consulting firm focused on saving energy and creating a more sustainable world.

“From our start, the SEE program has drawn like-minded individuals who have a passion to make change and create a more sustainable future,” says the program’s inaugural director Kevin Oldknow. “This shared sense of responsibility has fostered a close-knit community dedicated to teaching, learning and ultimately, making an impact.”

Pictured is Felipe Patarroyo Singh, who was part of the initial group to develop a zero-emissions retrofit for the Stanley Park Train.

The program has drawn more than 200 students since its start in 2019—40 per cent of them, female, and many, like Singh, Hannaford and Arciaga, from Surrey and neighboring communities—and earlier this year received accreditation from the Canadian Engineering Accreditation Board (CEAB).

The accreditation signifies that the program meets the standards set by engineering regulators and the first requirements to practice engineering and receive their professional engineer (P. Eng.) license. This also allows all students who graduate from the program to participate in the long-running Canadian tradition of the Iron Ring ceremony.

“It was a very proud moment when our (current) school director Mehran Ahmadi presented the ring to us and I will be very proud when I walk across the stage this week, knowing that I’ll be among one of the first to graduate from the SEE program,” says Arciaga.

We’re also proud to see this talented group of young graduates ready to embark on the world with the new skills they can’t wait to put to use,” says Ahmadi. “Given the high demand, it’s no surprise that they are finding their way into key companies whose goals are to improve energy efficiencies and find sustainable solutions across industries, and make a difference in the world.”