

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Calling Planet Earth - Space Outreach to the General Public (6)

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SFU SATELLITE DESIGN TEAM EDUCATIONAL OUTREACH

Abstract

SFU Satellite Design Team has been a major contributor to space and engineering education in MetroVancouver since September 2016. Some of the initiatives we have been leading have resulted in tremendously successful student projects, such as the Coquitlam space program, during which the Coquitlam school district 43 successfully completed and sent a project to the international space station as a part of the student spaceflight experiments program. SFU Satellite Design Team impacted this project by visiting Coquitlam schools on two occasions presenting on space, science and exploring how thing operation differently in microgravity to approximately 500 students to engage the students during the design and planning process for their own experiments. The role of the SFU Satellite Design Team is not limited to a singular school district. We have led several other projects throughout greater Vancouver with the goal of creating opportunities in engineering fields for girls and women. One of our projects called Go Eng Girl, was run by the Faculty of Applied Sciences at Simon Fraser University for girls from grades 7 – 10 to participate and learn more about engineering as a career choice. The satellite design team set up a booth, demonstrating engineering technologies related to space and Mechatronic Systems Engineering to inspire careers in engineering for girls. SFU Satellite Design Team participated in another similar project, called SheTalks; a conference for women in technology along with interactive displays from SFU students exhibiting technological demonstrations and projects. The satellite design team had a booth exhibiting the design process and technological systems included in the operation of satellites. Besides working on satellite operations projects, we like to contribute to our campus environment quality improvement. Following the announcement of the construction of the Energy Systems and Environmental Engineering building at Surrey by Prime Minister Justin Trudeau, a similar project, called CleanTech Demo was run by SFU Satellite Design Team to exhibit the benefits Cubesats have for remote sensing of the Earth's environment. Some of SFU Satellite Design Teams' outreach program future goals include increasing collaboration between various faculties and student groups to provide education about space to the public, university students, and to different school districts, creating a space physiology and biology education curriculum, and providing step-by-step space experimental design projects for high school students.