

News Release

Provincially recognized student Skywalker project designed to rescue people from high-rises, skyscrapers

EDMONTON, Sept. 4, 2019 – The tragic events at the World Trade Centre on Sept. 11, 2001 inspired a team of SAIT engineering design and drafting technology (EDDT) students to develop the concept for Skywalker, an aerial emergency rescue operation vehicle (AERO-V) that could potentially save lives on a global scale. The project was recognized by the Association of Science and Engineering Technology Professionals of Alberta (ASET) as a finalist in the Capstone Project of the Year Awards.

Skywalker is a piloted quadcopter platform that can rapidly extract multiple people from high-rises and skyscrapers. It's meant to be compact and transported to the site by an emergency vehicle or trailer. Once on-site, it can be deployed and readied for operation in minutes.

“This ASET Capstone Project of the Year Award finalist represents a brilliant and critical solution for potentially life-threatening situations, such as what happened on Sept. 11 almost two decades ago. It's an idea whose time has come and is long overdue. A team of SAIT students who have gone on to work in occupations in their field are hoping to make this concept a reality,” said ASET CEO Barry Cavanaugh.

The Capstone Awards were established by ASET in 2017 in response to overwhelming member interest in back-to-school stories about Capstone projects undertaken by teams of engineering technology students from NAIT, SAIT, Red Deer College, and Lethbridge College as part of their end-of-program requirements.

“Applied education is the cornerstone of learning for SAIT students. Congratulations to the Skywalker team as finalists for the Capstone Project of the Year. This recognition of student success and accomplishments with our valued partner, ASET, is a testament to their achievements,” said Brad Donaldson, SAIT vice president academic.

The Skywalker project has begun to attract interest from the public, local industry and innovators. Galvanizing the excitement is the fact that there are no technological hurdles to overcome. According to team member Nghia Vu, every technology needed to make this vehicle possible exists today.

“The tragic events of 9/11 highlighted a lack of innovation in rescue options over the past century. Worldwide trends over the past 50 years continue to show greater demand for construction of high-rises and skyscrapers as urban densification increases, yet first responders have no new methods to rapidly extract multiple people in dire situations,” said Vu. “Our mission was to develop a

commercially feasible and reliable rescue option that can be deployed in any city around the world.”

About the Capstone Project of the Year Award finalist team

Nghia Vu, technologist-in-training (TT), Calgary, Alta.

Vu was born overseas but raised from the age of two in Edson. He learned that while education is the great equalizer, innovation, communication, and determination are the qualities that inspire success. His background includes more than 15 years in the oil and gas industry. “SAIT offered the perfect opportunity to augment the designing skills I needed but, more importantly, it gave me access to an environment that promotes innovation,” said Vu.

Jingyan (Jessica) Su, technologist-in-training (TT), Calgary, Alta.

Jingyan Su was born in China and moved to Calgary after high school. She chose SAIT’s EDDT program because of her strong interest in drawing, designing, and engineering. “I enjoy learning about new technologies and using amazing software, such as 3D printing, AutoCAD, SOLIDWORKS, and Revit. “EDDT was a great program for me because the instructors and other students were so supportive,” said Su.

Thien Nguyen, technologist-in-training (TT), Calgary, Alta.

Born in Vietnam, Thien Nguyen moved to Calgary when he was 14. His family couldn’t afford conventional toys, so he spent most of his adolescence entertaining himself with objects he’d made out of household items. He loved reading about science and creating little experiments, and graduated from the University of Calgary’s chemical engineering program. Soon after, he signed up for the SAIT EDDT program, which has proven to be the best decision he ever made. “The program provided me the skills I needed to communicate ideas through drawings,” said Nguyen.

Sikwon Yang, technologist-in-training (TT), Calgary, Alta.

An international student, Sikwon Yang was born in Korea and has lived in Calgary for the past few years. He graduated from SAIT in 2018 and plans to become a qualified P.Tech through ASET. “SAIT’s EDDT program was not easy but the instructors prepared me to follow my passion to become a structural or architectural designer. I’ve spent a great deal of time learning other drafting programs by myself, making me more versatile,” said Yang.

About ASET

In addition to handing out the Capstone Project of the Year Award to deserving engineering technology students, the [ASET Education and Scholarship Foundation](#) provides scholarships, bursaries and educational funding to enhance and support the education of students pursuing engineering technology studies.

[ASET](#) is the professional self-regulatory organization for engineering technologists and technicians in Alberta. ASET currently represents over 18,000 members, including full-time technology students, recent graduates and fully certified members in 21 disciplines and some 124 occupations across a multitude of industries.

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