

## Building Canadian Space Capacity Through Canadian CubeSat Project

Guillaume Faubert<sup>1\*</sup>, Tony Pellerin<sup>1</sup> and Alfred Ng<sup>1</sup>

<sup>1</sup>Canadian Space Agency, St-Hubert, Québec, Canada

[\\*guillaume.faubert@canada.ca](mailto:*guillaume.faubert@canada.ca)

### ABSTRACT

In 2018, the Canadian Space Agency (CSA) launched the Canadian CubeSat Project (CCP) Announcement of Opportunity (AO) with the stated goal of stimulating Canadian student interest in space from every province and territory. 15 proposals were selected involving students in all ten provinces and three territories. The proposals consist of 12×2U and 3×3U CubeSats for a total of 33U. Proposed mission payloads include astronomy, space radiation, quantum magnetometer, GNSS reflectometry, virtual reality cameras, geological samples and Inuit culture promotion to name a few. The completed CubeSats are scheduled to be launched from ISS in 2022. CCP is the first project undertaken by CSA that involves student participation from every part of the country. CSA recognized that the success of the project depends on the knowledge base of the students. In the project implementation, CSA devised multiple approaches in knowledge sharing and transfer. This paper discusses the outcomes of these approaches. The paper also touches upon some unforeseen challenges faced by the teams. The metrics to measure the success of CCP are not limited by the successful deployment of the CubeSat. They also include the number of HQP (highly qualified personnel) trained and the promotion of STEM (Science, Technology, Engineering and Mathematics) to students. In that aspect, this paper will illustrate the successful performance of CCP.

Word count: 261