

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Enabling the Future: Developing the Space Workforce (5)

Author: Ms. Victoria Seline Bakken  
Orbit NTNU, Norway

CROSS-TECHNICAL STUDENT PROJECTS AND TECHNOLOGICAL SYNERGIES

**Abstract**

Students play a key part in developing future space technology. They are catalysts for positive change, can absorb a lot of information and drives development. Through higher education, students learn how to approach, execute and complete tasks they never have confronted before. Thus, they develop a better sense of cognitive abilities.

Orbit NTNU, a volunteer student organization at the Norwegian University of Science and Technology, is an excellent example of an early approach into educating the future of space engineers. Through ambitious projects students become experienced in developing technical skills and gain cross-collaborative practice.

Putting theory into practice is beneficial. It promotes critical reasoning, enhances understanding and unveils uncertainties. Cross-technical projects creates a thematic framework in which members become observant of how their expertise fits i a greater content. This, is not only convenient, but encourages students to futher pursue technical fields. Overall understanding of the greater context and what addition one plays further reassures the usefulness of other contributors. In addition, differences and similarities between project teams and technologies are unveiled.

The example this report will consider is the striking parallels between ocean and space engineering. In a constant pursuit of new knowledge, collaborative technologies will fill each others gaps and effectively approach new challenges.

This paper will explore advancements in space technology through early stage cross-technical learning. Further it will dvelve into how ocean engineering can inspire space engineering to emphasize how technological synergies arise.