

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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UNISEC LOCAL CHAPTER EMPOWERMENT PROGRAM: AN APPROACH FOR SPACE
WORKFORCE DEVELOPMENT IN NON-SPACEFARING COUNTRIES

Abstract

In this paper, we will introduce the UNISEC Local Chapter Empowerment Program and discuss how it could contribute to development of workforce in non-spacefaring countries/regions. University Space Engineering Consortium (UNISEC) has been promoting practical space projects at the university level over the past 20 years and has built a collaborative community from more than 20 countries worldwide. UNISEC-Global, a Non-Governmental Organization that consists of local chapters, has instigated the spread of space industry development all over the world through projects such as the CanSat Leader Training Program and Mission Idea Contest, among others. Over the last decade, opportunities for non-spacefaring countries to participate in the space industry were sparse. Many of these countries have steadily built space capability such that high-quality space education and training are now provided. However, regional space industry immaturity has resulted in a lack of local job opportunities where employment on space projects after graduation is difficult to obtain for many well-educated students. As a result, the effectiveness of robust education at the university level towards developing and maintaining a space workforce is stifled.

To address this situation, we proposed energizing our existing UNISEC-Global local chapters with a hypothesis that aligning personal and industry interests with university education acts as a catalyst for regional space-job growth, linking university education with the space workforce to create a comprehensive ecosystem. Our approach requires effort, but is resource-light. To this end, each UNISEC local chapter will function as a training and incubation center of space technology, directly employing space engineers and contributing to this ecosystem.

To explore this possibility, we initiated the UNISEC Local Chapter Empowerment Program. We organized the UNISEC Congruent systems seminar where participants learn UNISEC-Japan's operation systems and knowhow based on 20-years of continuous operations. We have a virtual meeting with each local chapter in a customized way.

The customized seminars taught us that each local chapter faces different challenges, and that a diverse range of strategies were required to achieve the goal of regional space workforce development. A common theme emerged during these seminars whereby robust education does indeed develop a capable workforce, and that collaborative efforts among industry, government, and academia are critical for retaining this space talent.