

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

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ESTABLISHING SPACE ACTIVITIES IN NON-SPACE FARING NATIONS: AN EXAMPLE OF
UNIVERSITY-BASED STRATEGIC PLANNING

Abstract

In 2006, Kyushu Institute of Technology (Kyutech) started to develop its own small satellite programs, which were mainly carried out by Japanese undergraduate and graduate students. In 2013, the first international project undertaken by Kyutech was established. During its two year development, it gathered about 40 students and research staff from 18 different countries including participants from non-space faring nations such as Colombia, Vietnam, Singapore, and Sudan. In parallel, Kyutech, through the Government of Japan, collaborated with the United Nations Office for Outer Space Affairs to establish the United Nations/Japan Long-term Fellowship Programme on Nano-satellite Technologies. Through the establishment of these different programs and efforts toward international collaboration as well as capacity building based on space utilization, Kyutech was able to initiate the Joint Global Multi-Nation Birds Satellite (BIRDS) project in 2015. In this project, non-Master or PhD degree holder young professionals from non-space faring nations participate to the design, development, testing, and operation of a 1U CubeSat, whose development costs are secured by the young professional's home institution. Upon completion of the project, the young professional aim at going back to their home country to help establishing indigenous space activities. As of February 2017, young professionals from Bangladesh, Ghana, Nigeria, Thailand, Mongolia, Philippines, Malaysia, and Bhutan are being involved in BIRDS project. When the young professionals go back to their respective home country, government officials are expecting them to help the country move forward toward indigenous space activities. To further help the young professionals acquiring the right tools and preparing them to successfully achieve the tasks that are expected from them in their home country, Kyutech initiated in February 2017 a space strategic planning project. During the project, young professionals from Bangladesh, Ghana, Mongolia, and Bhutan were invited to think about the strategy their home country should be following in the next 10 years in order to achieve their country's goals in terms of space sciences, engineering, and utilization, while respecting the country needs and constraints. In this paper, the efforts undertaken by the different young professionals are reported and the guidelines for each country space strategic planning are described. From this work, the authors aim at promoting space activities development in non-space faring nations and encouraging non-space faring nations to find their right strategy to achieve sustainable indigenous space activities despite the nation's constraints.