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FROM URBAN CITIES TO ISOLATED VILLAGES: CHALLENGES AND BEST PRACTICES IN CONDUCTING UNCONVENTIONAL SPACE EDUCATION ACTIVITIES IN THE PHILIPPINES

Abstract

Space education and outreach has always been a challenging endeavor, but this is more evident in emerging space nations such as the Philippines. The lack of exposure and opportunities to space-related activities have posed issues in encouraging the youth that would eventually lead them to venture into space-related career tracks. In the past 10 years, the Philippines has been ramping up its space capabilities, not just on the technical aspect but also in the education side. Various formal and informal activities have been conducted in the Philippines by government agencies, academic institutions, non-government organizations and private industries in the hope of sparking the interest of students from pre-school up to postgraduate levels. In this paper, I will discuss some of the effective programs that were conducted. These includes introduction of space science in daycares and early childhood education, a Junior Astronaut Academy summer program for elementary students, a comprehensive Space Science curriculum, a mobile science laboratory bus, and water bottle rocket and can satellite competitions for high school and university students. I will also convey the outcomes and experiences of The Little Engineers Program in the Philippines which introduced space robotics to high school students in remote and marginalized communities. I will then discuss the challenges and best practices in conducting non-conventional space education activities in emerging space nations, including understanding the local environment, content contextualization, language adaptation and cultural sensitivity. Having a prior understanding the unique challenges of non-traditional space education and outreach in emerging space nations would greatly enhance the effectivity and increase the long term impact of similar programs. The final section will discuss future plans for additional activities with other institutions and nations. It is hoped that through this paper, other countries can conduct similar activities that would further lead to further cooperation, sharing and improvements in conducting non-traditional space education activities.