

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

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NEPAL'S STRUCTURED FOUR-PHASED, T-SHAPED SPACE WORKFORCE DEVELOPMENT
FUNDED THROUGH A UNIQUE PPP MODEL

Abstract

The BIRDS project of Kyushu Institute of Technology in collaboration with Nepal Academy of Science and Technology launched the first satellite of Nepal, NepaliSat-1. Since then, a number of grass-root level initiatives have taken shape in the country to promote space education for workforce creation. One of the key programs has been a four-phased, T-shaped learning program where university students and graduates undergo both general and specialized skill training that allows them to build small space systems. SastoCube, an educational satellite learning platform developed in Nepal, first teaches students and research fellows four major general skills; Printed Circuit Board design, 3D CAD modeling, hands-on soldering and C-programming. In Phase II, each person is assigned a subsystem to design, program and develop from scratch. In Phase III, the team is deployed to targeted schools in disadvantaged, remote communities to teach what was learnt. The final phase involves them on real space projects. Two satellite projects that are scheduled to be launched in 2022 and 2023 are underway. The program is funded and implemented by a non-profit through a unique PPP model that involves both national and international public and private organizations. The program shows that such a low-cost structured program can build critical infrastructure and workforce for future space development before implementation of space policies and agencies.