

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

Author: Mr. Abinish Kumar Dutta
ORION Space, Nepal

Mr. Rakesh Chandra Prajapati
ORION Space, Nepal
Mr. Sanjeeb Humagain
ORION Space, Nepal

SPACE EDUCATION AND ENTREPRENEURSHIP IN NEPAL: CURRENT CHALLENGES,
STRATEGIES AND NEW DIRECTIONS

Abstract

Space entrepreneurship in Nepal and in any developing country in general with no prior involvement in the space sector has been a massive challenge for private startup enterprises, established institutions as well as business incubators. With minimal financial and physical resources or public awareness about the benefits of space science and technology to the society, the attempts to attract governmental funding sources and private investors have usually been futile. Underlying this reluctance is the erroneous belief that the industry can have no long-term growth potential, despite it being clearly evident that the world is becoming increasingly dependent on space-based technologies and the benefits gained thereof. On this count and a few others, space education in Nepal hasn't had much success yet.

With these in mind, ORION Space – Nepal's first aerospace company was founded in order to promote space education as well the development of space technology in Nepal and beyond. Unlike other mostly theoretical methods used hitherto, the company primarily focuses on Project Based Learning (PBL) methods using CanSats, paper rockets, UAVs, amateur radio, etc. and aims to bring the broader domain of aerospace engineering within the reach of aspiring young students and adult enthusiasts through hands-on trainings and workshops. At the same time, the company has initiated the development of Nepal's first satellite (a nanosatellite) in collaboration with a few other institutions. This paper discusses the challenges faced by ORION Space in this pioneering venture, the strategies adopted and the possible new directions to get more people involved.

The potential for observational research in Nepal, including observational astronomy, seismo-ionospheric research and earth observation related applications for the projects currently being earmarked are also discussed. A roadmap is presented for a broader inclusion of space sector into the Nepalese and global community and for workforce development strategies for the future venturers to follow along with a rigorous assessment of the historical context of space education and entrepreneurship.