

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

Lift Off - Secondary Space Education (2)

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SPACE EDUCATION AND OUTREACH BEYOND CLASSROOMS- INNOVATIVE APPROACHES IN THE LOCAL COMMUNITY BY INDIVIDUALS AND NON-GOVERNMENT BODIES, TO INSPIRE AND INVOLVE SCHOOL STUDENTS IN SHARED LEARNING EXPERIENCES

Abstract

India is continuously striving to achieve self-reliance in space science and technology; supported by the rapid economic development in the past few decades. However, in order to meet the ambitious goals of going to moon and beyond, a large workforce of professionals would be required. With more than 243 million children belonging to the age group of 10-19 years (UNICEF 2009), India has the largest population of children & youth in the world. This young generation will lead the development of the country; and also contribute to propel the public and private space endeavors. In order to inspire these students to follow a career in space science and technology, it is necessary to encourage and involve them at a young age.

In this paper, the authors give an account of their experiences with innovative ideas and approaches to inspire and involve students from secondary and high school in space science and technology. These projects are supported by efforts of young and motivated groups of enthusiasts and students, who contribute voluntarily to benefit the local community. These are:

1. Project Aryabhat Quiz, organized by Amit Smriti (Bhopal, India) is a space science and astronomy competition, for young school students of K-7 to K-10 (Age 12-15) from across the state of Madhya Pradesh and Chattisgarh in India. The winners of this competition get, a trip to eminent observatories and research facilities such as Indian Space Research Organisation (ISRO, Bangalore), Centre for Research and Education in Science and Technology (CREST, Hosakote), Giant Metrewave Radio Telescope (GMRT, Pune), IUCAA (Pune), Physical Research Laboratory (PRL, Ahmedabad), BARC (Gamma Ray telescope facility, Mount Abu) etc, and interact with the scientists and researchers in these facilities to prepare research projects and presentations on topics of their interest.

2. "Space Education and Outreach Initiatives" is a project started by VishR, Ujjain (India) to involve school students through interactive presentations in schools and through social media. The presentations, conducted by young university students, provide an interactive platform to deal with curiosities of students and provide them with a shared learning opportunity beyond classrooms.

These projects provide an interactive learning experience beyond the regular curriculum by connecting students, scientists and researchers from different parts of the country. The authors through this paper emphasize that such efforts can have significant contribution and can be used as models in other regions as well, to mobilize interest & provide hands on experiences.