

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

Lift-Off - Secondary Space Education (2)

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STANDARD FRAMEWORK TO INCREASE INTEREST AND PARTICIPATION OF INDIAN HIGH SCHOOL AND UNDERGRADUATE STUDENTS IN SPACE SCIENCES

Abstract

Indian Space Research Organization (ISRO) in the recent years has put India on the global space map. Many Indian citizens are very proud of the achievements of ISRO yet it is disheartening to note the low enthusiasm towards space sciences among the students of the country. Many students from different remote parts of the vast country are not even aware regarding the existence of an Indian space agency called ISRO. The brightest students of the country after graduating from prestigious universities such as Indian Institute of Technologies don't have a slight tilt towards a career in space sciences. If the current state of affairs continues then it might be difficult for ISRO to uphold its present remarkable reputation given its inability to attract fresh young dynamic talent. The need of the hour and as proposed in this paper is the inculcation of an introductory course or at the very least a minor topic regarding space sciences in the courses of high school and undergraduate students. Exposure to content and subject matter of space sciences will definitely stir the interest of young students and force their inquisitive minds to dive deeper into the subject. Scientists especially retired scientists from ISRO can be appointed as visiting professors in universities where they can teach an optional Open Elective course dealing with space sciences. Such a course will also include the history of Indian Space Program and ISRO. Armed with basic knowledge of space sciences and an exposure to the rich legacy of Indian space research will motivate the students to pursue further studies and career in the field of space sciences and ISRO. Such a standard framework if successful in Universities at Undergraduate level can also be introduced in the senior secondary level of higher secondary education after suitable modifications to match the intellectual capabilities of high school students. Such a model if successful in India, can then be replicated in emerging space nations of the developing world. With Space being the final frontier to be conquered by humanity, it is imperative that countries incorporate elements of space sciences in their education systems to better prepare their citizens to meet the challenges of a future dominated by space sciences and related studies.