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TEAM ANTARIKSH: ITS OBJECTIVE TO PROMOTE SPACE TECHNOLOGY AMONGST THE YOUTH

Abstract

Team Antariksh is a student-led space technology development team based in Banglore, India. The team consists of undergraduate students from various engineering disciplines who are passionate about space exploration and technology. The team was established in 2015 with an aim to design a payload for the PSLV-4 mission, under the Student Space Program of ISRO. It later set foot in the domain of rocketry and its first attempt, named Insight-1. In addition to the technical aspects of the project, the team also focuses on promoting space technology education and awareness in India. To achieve their goals, the team has formed collaborations with industry professionals and government organizations. This exposure in the youth space sector has inspired the members to participate in international competitions and conferences. The team's experiences will provide insight into the challenges and opportunities of student-led space technology development projects, and highlight the potential for such initiatives to inspire and educate the next generation of space professionals. This paper presents an overview of Team Antariksh, the impact of the internal management levels and its progress towards space awareness. This paper examines the impact of the hands-on work on both the projects, on undergraduate students. The team provided the members with hands-on experience designing, building, and launching a model and sounding rocket. It was observed that participation in the team had a positive impact on students' academic and professional development, with many reporting increased interest in STEM fields and improved technical skills. Additionally, participants reported improved teamwork, communication, and leadership skills, as well as increased confidence and a sense of achievement. These findings highlight the potential benefits of incorporating space technology education into undergraduate curricula and suggest that such programs can have a significant impact on student learning outcomes and future career trajectories.