

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Interactive Presentations - IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (IP)

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EEE+14 SPACE EDUCATION PROGRAM A SUCCESS STORY OF EDUCATIONAL INNOVATION
IN COLOMBIA 10 YEARS LATER

Abstract

One of the basic premises to equal opportunity in a society is the access to high-quality education. Project based learning and using educational projects in sciences are some of the forceful tools to promote, motivate and inspire scientific and technological culture. The Astronautics Colombian Association - Astcol created the Space Education Program EEE+14, to generate a new way of thinking about STEM and the importance of hands-on projects in education. ASTCOL has created different workshops and other educational resources for secondary students and educators to achieve that goal of inspiring young adults in the field of space.

The success case inside that program is called “Experimental Rocketry Project – Mision PIONEROS EEE+14”, in which high-school students from academic institutions around the country carry out the analysis, design, elaboration, test and launch of an experimental solid fuel space rocket with a useful objective to measure the atmospheric components required to reach a high point of 1000 meters. The results surpassed the brought-up goals, being the technical results over the expected, 1100 meters (100 more than planned), significant optimization of every subsystems (redundant systems, electronic instrumentation and recovery systems), and had a positive impact to students, teachers, staff members, parents all around the country, having an attendance of about 2500 persons during the launch, and being broadcast by the local and national media. Now 10 years later we really get to see the great impact that this innovative project made not only in academics but intellectually, socially and how it really changed the lives of all its participants. In this presentation we will share the results and stories of those that participated in this project and how the importance of a hands on project help the students determine their career paths and teach them a way to make a difference in society.