

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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Author: Mrs. Marlen Flores
Bolivarian Agency for Space Activities (ABAE), Venezuela

Mr. Luis Angel Hernandez Laya
Central University of Venezuela (UCV), Venezuela

ROBOTICS AS AN INITIATION MECHANISM IN THE KNOWLEDGE OF SPACE ACTIVITY IN
VENEZUELA

Abstract

In the last years, the Venezuelan Government through its Ministry of Science and Technology (MIN-CYT), with the objective to support the Venezuelan education system, has implemented strategies to motivate the study on science and technology in primary and high school students. Based on “National Semillero Científico Program” application and formulation. In this sense, the Bolivarian Agency for Space Activities (ABAE), organization specialized in space technology and in charge to develop the space activities in Venezuela with the purpose to disseminate and promote the knowledge on space technology from early ages in the Venezuelan education system, implemented a program called “Spatial Ignition” from the year 2020, with the aim to promote and motivate the Venezuelan children and adolescents the interest for science and space technology, through educational robotics basic courses focused on space technologies, using strategies oriented to develop creativity and critical thinking in children and adolescents. The aforementioned educational program, has as methodology the activities develop approached in several areas of knowledge, that covers the robotics, electronics, programming languages and design, in a playful way through age-appropriate instructional tools. In addition, the program also is integrated by the hydropropelled rockets construction using recycling material and basic topics of astronomy as program complement. Likewise, the learning methodology is based on projects develop by the students pointing out to use robots and solving structured challenges. As result, nowadays the ABAE space ignition program has instructed 1,400 students, including children, adolescents, and trainers. However, the Spatial Ignition program was born to help filling the gap between science, technology and education in the Venezuela education system. Keywords: educational robotics, science, engineering, mathematics, programming, project learning, hydropropelled rocketry.