

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
On Track - Undergraduate Space Education (3)

Author: Mr. Isai Fajardo  
Mexican Space Agency, Mexico

Mrs. BLANCA REBOLLAR  
Mexico

Mr. Octavio García Arellano  
Mexican Space Agency, Mexico

SPACE ENGINEERING EDUCATION PROGRAM OF THE MEXICAN SPACE AGENCY AS A  
BOOSTER OF SPECIALIZED PROFESSIONALS IN MEXICO

**Abstract**

Space Engineering Education is one of the most important and basic foundations needed to consolidate space science and technology development in every country with a space program. The space industry requires highly qualified professionals, where knowledge, performance and quality of work determine and guarantee the success of different tasks needed to accomplish demanding projects.

As better prepared is the people working in the space industry, the best results will be achieved. At the Mexican Space Agency we are working on providing educational tools for students, educators and professionals who are starting space related projects. These tools allow people interested in developing space-based applications, getting acquainted with space technology concepts needed to conduct a project. The participants involved in the use of these tools will have the opportunity to start a formal training with the advantage of project-based learning, which is a better approach to learn by exploring real-world problems and challenges.

The present work shows the development and results of the Space Engineering Education Program of the Mexican Space Agency, for training students, educators and professionals in the field of space technology development in Mexico. The goal is to provide space science and technology concepts based on methods and techniques through hands-on training projects. So far we have developed an educational web site, specialized training courses, technical manuals, books, small satellites, rockets and other prototypes, as tools for supporting people interested in space developing projects. A considerable amount of educators, undergraduate and graduate students have been taking part of this effort of project based learning within the last 2 years. Several institutions and universities have been taking advantage of this material for free since it was created and we continue developing more tools. In the near future, we look to become the world reference in space education in Spanish language and this will be possible by increasing the supply of educational innovative solutions in space science and technology.