

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
“Hands-On” Space Education (1)

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1ST INTERNATIONAL CANSAT COMPETITION LEEM-UPM: FOR STUDENTS, BY STUDENTS

Abstract

Last April, 2008 LEEM organized its first International CanSat Competition with the support of the Technical University of Madrid (UPM) and the Spanish National Institute for Aerospace Technology (INTA). This project fully lead by students brought together 135 students from six universities and two continents, and gave them the opportunity of getting involved in taking part on the Competition, developing the rockets and infrastructure associated with the launches or organizing the event.

The CanSat concept has demonstrated to be a unique approach to initiate students from technical careers on the space-engineering field and on the good practices associated to the space industry. In less than six months, students with no previous experience learnt all the required skills and were able to successfully develop a device capable of accomplishing a certain mission, according to given design requirements, and to generate the related technical documentation.

The LEEM CanSat educational project also deals with students designing for the first time a rocket capable of transporting a payload from a third party, complementing their academic formation with a real hands-on project and acquiring the responsibility of achieving specific performances by the date of the Competition.

This paper will analyse the lessons learnt on the first and second edition of LEEM's CanSat Competition, focussing on the educational feedback for organizers and participants, the source of motivation towards space science and its specific weight towards a future professional career on the space industry, as it gives students for the first time the opportunity of demonstrating their technical skills to their future employers, not only based on academic curriculum.