

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
New Worlds - Innovative Space Education and Outreach (7)

Author: Mr. Borja Hidalgo Jiménez
LEEM, Spain

Mr. Tariq Al-Marahleh Montes
LEEM, Spain

Mr. Daniel Sors Raurell
LEEM-UPM, Spain

INTERNATIONAL CANSAT COMPETITION: CONSOLIDATING THE STUDENTS REAL
PROJECTS

Abstract

After the success of the two previous International CanSat Competition LEEM-UPM, which were held in Madrid 2008 and 2010, students from Technical University of Madrid (UPM) and young professionals will fully lead the third edition of this project at the beginning of September 2012, consolidating a biannual international event open to Students from any country in the World.

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 will learn all the required skills and will be able to successfully develop a device capable of accomplishing a certain mission, according to given design requirements, and to generate the related technical documentation.

By organizing this Competition, LEEM, apart from promoting international cultural exchange and experience sharing among students, tries to encourage Spanish and International Students to complement their academic formation by participating on a real hands-on project, including the design, manufacture and operation of their own CanSat's. The lack of this kind of activities in the past has made the promotion of the Competition a real challenge but the participation of more and more Students every year, shows a growing interest that justify the use of CanSat as a very powerful educational tool for students of different age ranges.

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

This paper will analyse the key points and the steps followed by LEEM to organize a successful International CanSat Competition in order to support and help other Students or Institutions interested in developing their own Competition. Results and Lessons learnt on the third edition of LEEM's CanSat Competition will be also presented, focusing 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.