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SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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IRAN CANSAT COMPETITIONS, A NEW WAY TO MULTIDISCIPLINARY TEAMWORK

Abstract

Considering the Iranian undergraduate students interest for opening new adventures and getting involved in technical competition which leads the fresh mind participant to multidisciplinary teamwork with a product at end, Iran Cansat Community, with support of Aerospace Research Institute (ARI), knows as its duty to make the opportunity for these original ideas in their way to implementation. First Iran Cansat Competition (ICC2011) can be assumed as the most important event in which students experienced design and development of a small space system like cansat. Introductory campaign of ICC2011 was relatively successful with 35 teams registering. Teams were evaluated by their system design and reports, and 18 cansats were accepted to demonstrate their system operations. ICC2011 not only taught undergraduate students the system design process and gave them the view needed for implementation of their ideas, but also was so erudite for the competition organizers. ICC2011 showed how undergrad students can form a team out of different engineering disciplines and manage it to get the final product. Cansat competition is valuable for ARI as it contributes to its educational plan, and also its plenary plan for human resources. With the successful experience of 1st Iran Cansat Competition in National scale, ARI decided to hold the 2nd competition with cooperation of interested organizations. In order to step forward, 2nd Iran Cansat Competition (ICC2012) will be International and More Competitive. ICC2012 will be held in 2 sections for Balloon Release (Section A) and Rocket Challenge (Section B). In Section A, Cansats are raised by a system using a helium balloon and released from an altitude of about 500 meters. Teams are allowed to choose one of three main missions, namely Atmospheric Sounding, Comeback and Photo Capture, each of them may be a way to present new ideas for further design or implementation of small space systems. This paper outlines the most important outcomes and lessons learned from ICC2011 and briefly describes special features of ICC2012. The paper then deals with ARI policy for competitions like ICC. Also, some economy-friendly recommendations are given in the conclusion that may be applied to the space emerging countries to make needed next generation work force for their long term space programs.