

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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THE IMPORTANCE OF DESIGN AND BUILD TEST-BED PLATFORM FOR CUBESAT MISSIONS
IN THE UAE

Abstract

New technologies have been developed to succeed the space mission requirements, avoiding the failures that had been occurred in past missions. One of the UAE Space Agency main aims since their launch in 2014, is to encourage the development and use of space sciences and technology in the UAE and raise awareness of the importance of the space technologies, enhance national capabilities and encourage peaceful application of space research. Upon these aims, the agency has been encouraging students and universities to contribute in space activities. In May 2016, group of senior aerospace undergraduates in Khalifa University presented their senior design project in Boeing headquarter, Everett which was design, build and test a test-bed platform for emulating CubeSats missions to space, as the first of its kind in the local universities. They worked to build and test the platform as a fully designed in-house project; this include analyze and manufacture the platform using the 3D printing technology and the flying wheels. The outcomes of the project were involve the undergraduate students to real aerospace activities and turn the theoretical knowledge into actual space application. Universities are working on developing the project and extend the knowledge and technical work to their students.