

48th STUDENT CONFERENCE (E2)
Educational Pico and Nano Satellites (4)

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MYSAT-2: A 2U CUBESAT FOR EVALUATING NOVEL ATTITUDE CONTROL ALGORITHMS

Abstract

MYSAT-2 is the second nanosatellite initiated by Khalifa University and funded by Yahsat in partnership with Northrop Grumman. It is a 2U CubeSat that is being developed by graduate students from Yahsat Space Lab. The mission of MYSAT-2 is to verify the accuracy of different attitude determination and control algorithms, by capturing photos in the pointing direction using a digital camera payload. The captured photo is compared with the expected acquisition reference on ground. The system will evaluate novel algorithms developed by the students while also testing the software based on existing algorithms in the literature. The eventual aim of the mission is to produce a software library that could be used in future missions.