MATERIALS AND STRUCTURES SYMPOSIUM (C2)
Interactive Presentations (IP)

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DESIGNING A STRUCTURE, ANTENNA AND SOLAR PANELS DEPLOYMENT SYSTEM FOR A STUDENT NANO SATELLITE BUS MODULE (NIUSAT MARK-I)

Abstract

In this booming era of nano satellites, NIUSAT team from the "Center for Satellite Technology and Applications", Noorul Islam University, have been keenly involved in designing and realizing a indigenous student nano satellite named NIUSAT MARK-I.

The satellite has two modules and the first module is the satellite bus and the second module is the payload. The same satellite bus can be used for multiple payload options and also has a unique deployment mechanism for the telemetry communication antennas and solar panels.

The engineering qualified model has been realized and the final flight model is under realization.

This paper focuses on the satellite Bus Module that has been designed with a unique logic to meet all redundant needs of the satellite.