SPACE DEBRIS SYMPOSIUM (A6)

Interactive Presentations (IP)

Author: Mr. Biltu Mahato India, mbiltu.777@gmail.com

Mr. Sandesh Rathnavarma Hegde Nitte Meenakshi Institute of Technology, India, san1991.sandesh@gmail.com Dr. Sandya S India, sandya9prasad@gmail.com

DEORBITING OF NANO SATELLITE USING COLD GAS THRUSTER TO MINIMIZE SPACE DEBRIS.

Abstract

This paper describes the design and development of a propulsion system for De-orbiting the Nano Satellite. This paper proposes an innovative and simple solution to mitigate potential space debris caused by satellites. It is achieved by the use of cold gas propulsion system. De-orbiting is done by transferring the satellite from an altitude of 680km to 180km from earth surface. The transferring is done in accordance to Hohmann transfer with minimum use of the propellant. The use of thrusters to de-orbit a satellite is the first of its kind in India. It will be a model for future satellite de-orbiting and might increase the chances to be used for other purposes as well.