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Author: Mr. Eduardo Escobar Burger National Institute for Space Research - INPE , Brazil, eduardoebrg@gmail.com

Prof. Pedro Lacava ITA-DCTA, Brazil, placava@ita.br Prof. Geilson Loureiro Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, geilson@lit.inpe.br Mr. Cleber Toss Hoffmann ITA-CTA, Brazil, cleber.toss.hoffmann@gmail.com Prof. Mateus Oliveira Pereira Aeronautic Institute of Technology (ITA), Brazil, mateusop@yahoo.com.br

LESSONS LEARNED BY THE FIRST BRAZILIAN CUBESAT PLATFORM

Abstract

This paper presents the lessons learned by the first Brazilian CubeSat Platform, ITA/INPE's AESP14 Project. This work is a summary of notes and recommendations of what to do (and what not to do) when developing an educational nanosatellite. The system was used as hands-on activity to ITA Aerospace course Systems Engineering discipline. The undergraduate students were focused on systems engineering activities and documentation to give inputs needed for INPE and ITA graduate students to build and test a low cost national CubeSat platform. Results showed that a CubeSat project is feasible to teach systems engineering concepts, but no signal was received since its ejection. The CubeSat was launched in late 2014 through Falcon-9 launcher, and ejected from ISS on February 5th. Design and test pitfalls as well as probable causes of failure are discussed.