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NARSSCUBE: LEAN SATELLITE APPROACH FOR FAST AND ECONOMIC MISSION

Abstract

In this paper, we present a complete mission life cycle that was carried out during the development of NARSSCube Pico satellite series; two satellite 1 U cubesat size were totally developed in-house, and deployed in space since 2019. The project is based on lean approach to achieve cost effective solution-meeting the requirements and needs of "developing countries". The results of this mission and assessment of the approach, we adopted, is presented as well; including the development of each satellite subsystem, manufacturing process and challenges our team faced and succeed to overcome. We present our experience and lesson learned from this project; moreover, we show how we are moving forward and future missions in Nano satellite track at Egyptian space agency. Finally; we conclude the mission and propose an economic and fast approach for developing country to overcome financial expenses and political issues related to access to space.