36th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Cost and Procurement impacts on Space Programmes linked to high inflation and world-wide scarcity of components and materials (6)

Author: Mr. Siddharth Joshi
R V College of Engineering, Bengaluru, India

Mr. Darpan Byahatti
R V College of Engineering, Bengaluru, India

A COMPREHENSIVE ANALYSIS OF POLICY MAKING TO DEAL WITH THE SPACE TECH SUPPLY CHAIN CRISIS IN INDIA

Abstract

Since the beginning of space exploration, collaboration on an international scale has been a norm in the space industry. Commercial applications of space had already seen nations join hands together, as was seen by the development of the Intelsat communication satellite constellation by 11 nations in 1964. The Indian space program in particular has seen a large dependance on foreign components to develop their space assets since the beginning of their space program. Although the national space program has seen a large amount of indigenisation of critical technologies in recent years, the rise of the NewSpace industry in India has led to an increase in imports of commercial off the shelf (COTS) components to develop their systems. The COVID pandemic was just the beginning of the story for the disruptions in supply chains of components. The rising geopolitical tensions between China and the US, the Ukraine crisis and the subsequent economic sanctions on Russia has placed India and its space industry in a unique position to tackle the supply chain crisis. This paper aims to study different factors affecting the supply chains of space technology components in India and review the Indian policies that deal with this problem. Focus will also be given to the practices and policies adopted by NewSpace startups within the country. The aim of this paper is to present a roadmap based on the Indian approach to tackle this crisis that can also be used by other up and coming space programs and space tech enterprises around the world, particularly those situated in developing economies.