IAF SYMPOSIUM ON SECURITY, STABILITY AND SUSTAINABILITY OF SPACE ACTIVITIES (E9)
Interactive Presentations - IAF SYMPOSIUM ON SECURITY, STABILITY AND SUSTAINABILITY OF SPACE ACTIVITIES (IP)

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BLOCKCHAIN FOR SUSTAINABLE SPACE ACTIVITIES

Abstract

The present working paper develop the previous study about the use of blockchain technology to contribute to the success of sustainable space activities in the New Space Era. In particular, activities related to space traffic management and space situational awareness. Space Traffic Management is an important issue of space safety because of the public safety risk during launch and return/reentry and risk of loss of important space based services. The space traffic management objective is the space environment sustainability and protection. Space sustainability requires an organized international cooperation and that technology can offers high availability, auditability, transparency, neutrality and reduced process cost. One of the huge problems in space traffic management is that you cannot manage what you cannot measure. A fundamental principle of any space traffic management system is to accurately detect, identify and track all objects within the management domain. The current situation of space is unsustainable without an international and cooperative management system. As we explore significant business opportunities in the space economy, we must understand that debris removal and collision avoidance are vital to safe space activities. And as space on earth becomes increasingly crowded, there is an urgent need for international cooperation and coordination in managing space traffic. Exploitation of space resources for generations to come will depend on how we manage them now. The research methodology is bibliographic, through qualitative analysis and the inductive method is applied. Keywords: Blockchain; Technology; Space Activities; Space Traffic Management; Space Situational Awareness; Space Sustainability.