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Space Technology and System Management Practices and Tools (3)

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EMERGING AND ADVANCED TECHNOLOGIES IN THE SPACE DOMAIN: A UAE CASE STUDY

Abstract

The development of Space Sciences and technologies are rapidly growing and evolving globally with use cases and applications in various sectors. The Space sector is one of the industries in which the adoption of new advanced technologies holds tremendous potential value. Examples include: telecommunication, earth-observation, and satellite positioning and Isolation Systems and in improving satellites Images, data and classifiers. Since the increase of commercial space in recent years, the Space sector has been one of the key enablers for the advancement of various applications and deriving value from the immense data that is produced to support monetization efforts. In addition to the data analytics aspect, The Space sector will continue to be the cognitive applications for spill-over and other sectors. The main focus of this paper is on past, recent and future trend of the UAE's progress in the STI Roadmap, focus areas and trends which are the main operational projects from research centers, academia, innovative startup institutions, and in particular such entities that operate in the space sector. Existing and future opportunities and challenges were analyzed to produce a set of recommendations to the UAE Space sector in adopting new and emerging technologies with a focus on bridging the gap between industry needs and potential opportunities