

## SPACE DEBRIS SYMPOSIUM (A6)

## Poster Session (P)

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COMMERCIALIZATION OF SPACE: ISSUES, OPPORTUNITIES AND CHALLENGES FOR ACTIVE  
DEBRIS REMOVAL

**Abstract**

The development in the space technology has changed our lives unalterably, that has come at a price which prove these great strides are as much a curse as a blessing. In the pursuit of advancement, we have paid scant respect to the environment in the space, resulting in the space pollution. The new era of a 'space race' has embarked a few concerns including technological development and legal challenges, and corporate responsibilities while chasing opportunities and challenges. The studies have shown that at this pace when the global space community participation is increasing, incidents are likely to occur, raising liability and insurance concerns, followed by disruptions in operation. At this stage, considering the limitations of academic and government sectors, the private companies can play a vital role through public – private partnerships in active debris removal from the earth's orbit. This paper also discusses a few studies which have been initiated by the national space agencies, academic institutions and private organizations, resulting into innovation of new technologies, exploring a new horizon which can successfully implement the projects to remove debris from the orbital space. Using Public – Private partnership, as a key essential, ensures the economical safety and efficient operations based on intra-government treaties for the commercial development. This paper also discusses the possibility of joint ventures from CSOs, NGOs, Academic Institutions, for developing the project for active debris removal from space, for commercial companies and government organizations for efficient execution. This will not just help to encourage global community participation but also provide a common platform to prepare the voluntary guidelines for the countries for adoption, addressing the present challenges in order to avoid 'disasters in the space'. Mission implementation to remove orbital debris, jointly with the support of international communities will ensure the smooth and efficient space operations, addressing all the technological, legal, commercial (insurance, liability and operations) issues and shall also encourage the participation of global communities for bringing innovative platform of 'clean and peaceful space', providing efficient solutions for active debris removal from earth's orbits.