

27th IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM (A5)
Interactive Presentations - 27th IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR
SYSTEM (IP)

Author: Ms. Ekaterina Faber
Moscow Institute of Electronics and Mathematics of National Research University Higher School of
Economics (MIEM NRU HSE), Russian Federation

PROSPECTS OF ARTIFICIAL INTELLIGENCE APPLICATION FOR FINDING OPTIMAL
SCENARIOS OF SUSTAINABLE DEVELOPMENT ON THE MOON AND MARS.

Abstract

This article provides an overview of the potential application of AI to optimize operational issues in deep space missions. It includes discussions of the possibilities for using AI-based autonomous systems to manage resources, risks, ensure safety, and adapt to adverse conditions. Additionally, use of AI for analyzing data on the environment, resources, and climate of planets is considered to aid in making more informed decisions. Attention is also given to the creation of a sustainable AI infrastructure to expedite and enhance research processes, such as for creation space habitats.