

Lunar Exploration (2)
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OPERATION OF FUTURE LUNAR SOCIETY IN 2040 AND BEYOND

Abstract

In 2040, a world where 1,000 people stay on the moon all the time and 10,000 people visit every year is imagined and its feasibility and technology roadmap are discussed. In such a world, not only the minimum infrastructure necessary for residents and travelers to survive such as habitation, transportation, power, communication, food and water, but also comfortable living and entertainment are required. Also, in order to make a lunar society sustainable, not only the individual elements such as in-situ use of resources (ISRU) technology and closed circulation system, which are currently being researched and developed all over the world, but it is also important to design architecture and operate the infrastructure and facilities on lunar surface and lunar orbit so that they work together in an organic manner to improve efficiency and optimization as a whole. In this session, we will present one way of thinking about the comfortable lifestyle for residents in the 2040 lunar society, and the overall operation and management that enables a sustainable lunar society.