

33rd IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
The future of space exploration and innovation (2)

Author: Mr. Junwoo Park
Korea Aerospace Research Institute (KARI), Korea, Republic of, park2445@kari.re.kr

Ms. Mira An
Sogang University, Korea, Republic of, miraya486@sogang.ac.kr

PROPOSING PROMISING SPACE TECHNOLOGIES BASED ON PATENT ANALYSIS

Abstract

Preparing for technological changes is a key factor for the success of technology-based organizations. It is why they have to set the future direction mainly through RD planning. In this respect, we propose promising technologies derived from patent analysis of technology trends in the space field. In doing so we collected patent data in space-related technologies from 1993 to 2018, and categorized them into large, medium and small scale classes. Then, we analyzed emerging potential, market potential, and spillover potential with the data, and derived 30 promising space technologies from the analysis. Among the technologies, 'system communication technology' is the most promising technology in the small scale class. And 'spacecraft technology' stands out in the large scale class. In addition, we present trend analysis for 'spacecraft technology'. We expect that our research based on objective analysis of patent data will be utilized as a source of RD planning and public policy decision making.