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Human Robotic Partnerships for Exploration (04)
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APPLICATION OF ADVANCED ROBOTICS FOR THE EXPLORATION OF OUTER SPACE OBJECTS BY THE EXAMPLE OF ROBOTICS FOR LUNAR RESEARCH. USE OF ANTHROPOMORPHIC ROBOTS FOR THE FURTHER EXPLORATION OF NEAR-EARTH SPACE AND FOR THE TASKS OF LUNAR AND MARS EXP

Abstract

The strategy of robotics development for the purpose of outer space exploration is introduced. Perspective project of Lunar Roving technology is developed. Different types of special-purpose rovers for Lunar exploration, including their technical characteristics, are presented. The process of assembling of very large space structures and space antenna with the aid of robotics is illustrated. The possibility of using of Anthropomorphic robots for the further exploration of near-Earth space and for the tasks of Lunar and Mars exploration is examined. Various projects of Anthropomorphic robots created by Russian company "Android technics" are presented. Various types of control systems for Anthropomorphic robots, including vision systems proposal, are introduced.