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EXPLORING THE VAST POTENTIAL: OPPORTUNITIES IN SPACE MINING

Abstract

Space mining, the extraction of valuable resources from celestial bodies such as asteroids, the Moon, and even other planets, presents a promising avenue for future resource exploration and utilization beyond Earth. This research explores the opportunities of space mining, focusing on the possible economic, scientific and technological benefits. Space mining has gone from a theoretical concept to a realistic possibility with advances in space technology and growing interest from government agencies and private companies. The work analyzes critical considerations such as identifying suitable mining targets, technological challenges, legal frameworks and possible applications of mined resources. By harnessing the vast resources of space, humanity could address pressing challenges on Earth, such as resource depletion and environmental sustainability, while opening new frontiers for exploration and economic development beyond the limits of our planet.