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PROTOTYPE SOLAR POWER TOWER/ ADVANCED HELIOSTATS AND BUILD SOPHISTICATED TRANSFORMERS ON MOON SURFACE

Abstract

During the recent times, the growth of the global interest in the space exploration of the surface of Moon/Mars is tremendous. With increasing advanced technology for planetary exploration, every mission including robotic exploration with landers, vehicles, spacecraft, rovers, space colonies and communication purposes are required an external power generation source and storage systems to fulfill the power requirements during space exploration missions. To ensure the continuous external power supply system on moon surface, Notion Robotics Lab is designed a prototype solar power tower and install a serial sophisticated solar powered Transformers of Heliostats and architecture for successive missions in the desired same region and for simultaneous powering of multiple platforms thus enabling to charge from the Heliostats. As procedures will be needed to combat the temperature differential that will occur on such a structure when exposed to sunlight on one end and the cold of deep space on the other. This prototype solar power tower will be equipped with autonomous system mounted with antenna mast and camera to support the system. This tower will be tall enough to receive sunlight continuously and therefore provide a continuous supply of electric power to lunar base. This research paper is in its initial development and presents an overall view of a new technology integrated summary of the Future Landers with Artificial Intelligence to address the challenge building Lunar Transformers /Heliostats and to transform a region of an extreme hazardous environment into a friendly micro-environment/habitat, thus projecting solar energy at the locations where Robots or Human operate. Keywords: - Prototype Solar Power Tower, Lunar Transformer, Autonomous Systems, Heliostats.