

Conceptual design and development of Lunar Mobile Habitat for exploration of Moon

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Moon has always been a dream location for space exploration. Humans have only set foot on moon amongst the other planetary bodies and have further plans to establish a settlement in form a basecamp. The existing design setup of Moon village is a brilliant concept and has many advantages but it limits humans from getting mobile for a longer distance and duration of time and thereby reduce the capability of humans in exploring the far side of the moon. It is impossible for individual humans to perform all the activities on Moon, therefore the usage of rovers in exploration is highly appreciated and human-robotic missions are always a key consideration when missions are planned. Being limited with rovers and only short EVAs will not be sufficient to fulfill the quest for the search for vital things on moon. The

aim is not only to explore the surface and help in the colonization of moon. The Author's vision for the future Lunar exploration of humans is to establish a mobile habitat module for human beings which shall help in assessing remote locations easily and effectively. Usage of mobile habitats will not only help humans in exploring the Moon at a faster rate but will make them nomads of the Moon and help increase the probability of finding and establishing better understanding of various locations on Moon. The mobile habitat will consist of all the facilities as the regular habitat base in terms of power, water storage, sleeping pods, living room, kitchen etc. The conceptual design of the habitat which includes all the required facilities for travelling on moon shall be taken care and presented at the conference.