

SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND  
DEVELOPMENT (D3)Strategies & Architectures as the Framework for Future Building Blocks in Space Exploration and  
Development (1)Author: Ms. Ankita Vashishtha  
India, ankita\_vashishtha@yahoo.co.inINNOVATIONS IN UP GRADATION IN INFRASTRUCTURE OF SPACE CRAFTS FOR LONG  
SPACE MISSIONS ON NEO/EXOPLANET.**Abstract**

With the up gradation of technologies now a days space missions are planned for exploration of deep space in solar system. Even building up a permanent base on any NEO/Exoplanet is not a distant vision. However some of the lacunae which falls in such a mission are many like Radiation Shielding, Fuel, Weight, Logistics, High Technological Instruments etc. The main Problem in these missions is the weight of the space craft which mainly constitutes of Radiation Shielding and the fuel supply to meet the requirements of the space craft on NEO/Exoplanet base. Hence if the Radiation Shielding can be build by NEO/Exoplanet soils and fuel requirements can be meet from minerals on NEO/Exoplanet then weight of the space craft will be drastically reduced. Thus, correspondingly launching mass of the space craft will require less fuel to launch from the earth surface for such space missions. This paper exclusively deals with the innovations in the up gradation in infrastructure of space crafts so that such a long term base can be settled and good research can be done on NEO/Exoplanet.