

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Technologies for Future Space Transportation Systems (5)

Author: Mr. Nadeem Alam

Department of Aeronautical Engineering, Babu Banarsi Das National Institute of Technology and
Management, Lucknow,, India, alam.nadeem94@gmail.com

Ms. Shruti Sneha

SRM University, India, India, shrutisneha2011@gmail.com

Mr. Shahanshah Alam

Department of Electrical & Electronics Engineering, Babu Banarsi Das National Institute of Technology
and Management, Lucknow,, India, shaha8658@gmail.com

Mr. Pushpendra Singh

Department of Aeronautical Engineering, Babu Banarsi Das National Institute of Technology and
Management, Lucknow,, India, psingh1106007@gmail.comREUSABLE LAUNCH VEHICLE – CONCEPT AND TECHNOLOGY OF INDIAN SPACE RESERCH
ORGANISATION**Abstract**

The cost for accessing space exploration and space utilization is very high since the technologies has been developing day by day. We need to minimize the cost of space exploration and space utilization. Till now we are using non reusable launch vehicle to send payloads into the space which takes more cost. Indian Space Research Organisation (ISRO) is planning to launch Reusable Launch Vehicle (RLV) to send payloads to the space. RLV is a series of technology demonstration missions that have been considered as a first step towards realizing a Two Stage To Orbit (TSTO) fully re-usable vehicle. These technologies will be developed in phases through a series of experimental flights. The first in the series of experimental flights is the hypersonic flight experiment (HEX) followed by the landing experiment (LEX), return flight experiment (REX) and scramjet propulsion experiment (SPEX). If the mission success the cost of accessing space exploration and space utilization could be minimized.