

**GOVERNMENT OF INDIA
SPACE
LOK SABHA**

UNSTARRED QUESTION NO:4105
ANSWERED ON:19.02.2014
DEVELOPMENT OF ROVER FOR CHANDRAYAAN II
Bishnoi Shri Kuldeep

Will the Minister of SPACE be pleased to state:

- (a) whether the Indian Space Research Organisation (ISRO) had given a project to IIT Kanpur to develop a rover to be launched with Chandrayan-II;
- (b) If so, the details thereof along with the present status of the project;
- (c) whether the said rover has been received by ISRO and if so, the details thereof;
- (d) if not, the reasons therefor; and
- (e) the action likely to be taken by the Government in this regard?

Answer

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG & PENSIONS AND IN THE PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY):

(a) No Madam. Indian Space Research Organisation (ISRO) has not given any project to IIT Kanpur to develop a rover to be launched with Chandrayaan-II. However, ISRO has signed two Memorandum of Understanding (MOUs) with IIT- Kanpur in 2009 to develop theoretical software packages related to rover.

(b) As per the MOUs, IIT-Kanpur was entrusted to develop following theoretical software packages:

- (i) To develop the kinematic control algorithm for the rover motion on an uneven terrain.
- (ii) To develop algorithms for computer vision based autonomous navigation system for mobile robots for the lunar rover mission.

IIT, Kanpur has carried out the design and development of the algorithms, validation of the software and also the simulations trials. ISRO has taken action for evaluating the work carried out by IIT, Kanpur as per the MOU.

(c) As per MOU no Rover was to be delivered by IIT, Kanpur. Only deliverable from IIT Kanpur is the algorithm software and its computer simulation results,

(d)& (e) Do not arise.