

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

LOK SABHA

UNSTARRED QUESTION NO.2679

TO BE ANSWERED ON WEDNESDAY, DECEMBER 04, 2019

STUDY BY CHANDRAYAAN

2679. SHRI MAGUNTA SREENIVASULU REDDY:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Chandrayaan-2 has begun spectroscopic studies of lunar surface;**
- (b) if so, the details thereof; and**
- (c) the details of aims of the Imaging Infrared Spectrometer (IIRS) on-board Chandrayaan-2 and the details of this devices' contribution?**

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG &
PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

(DR. JITENDRA SINGH):

- (a) Yes, Sir.**
- (b) Infrared measurements are done during bright sunlit conditions while X-ray measurements are carried out during phases of solar activity.**
- (c) IIRS aims to identify and map the location of minerals using absorption features in the reflected sunlight from the Moon's surface. The extended operational band of IIRS also enables**

clear identification and mapping of water-ice on the sunlit lunar surface. The extended band of 3-5 microns in infrared enables improved capability to subtract the thermal background which otherwise causes uncertainties in estimating the water signature.
