

Colloquium

India's tryst with Moon

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The Planetary exploration program of ISRO was started by Chandrayaan-I in 2008 where India desired to showcase its technological growth by reaching out to Moon. The thumping success of Chandrayaan-I in its 1st attempt is remarkable considering the history lessons humans have gone through. In the ranger mission during 1961-65; NASA had to face 6-consecutive failures in sending a space craft to moon; while India made it to the moon in its very first attempt. Chandrayaan-I had a mission called Moon Impact Probe (MIP), as per President Kalam's idea of sending a "messenger" from India which would touch the lunar soil.

Chandrayaan-2 was a logical step for ISRO to take up an in-depth study of Moon literally on its surface. This involved having an orbiter revolving around the moon and to land softly on the lunar surface. Chandrayaan-2 had 2-major challenges: a. Taking a ride on the newly inducted GSLV mk-III, b. Land a rover on the moon to carry out experiments. The toughest challenge was to soft land on moon; which was never attempted by ISRO. Though the mission had smooth ride in reaching the moon; the Vikram lander failed to land near the lunar south pole.

In the capacity of core science team member of Chandrayaan-I project, the author had first-hand experience in developing an indigenous science instrument called CHACE. The CHACE would travel a downward journey after separation from Chandrayaan-I to have an impact near the south pole of the Moon. The discussion would involve outlining all three Indian moon missions; highlighting the successful impact of a probe (MIP) in Chandrayaan-I and landing challenges faced by Vikram, the lander; where no one had ever dared to reach.

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4:00 PM (Tea / Coffee 03.45 PM)

Auditorium, TIFR-H