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# IISER Pune professor shares insights on Aditya-L1 mission

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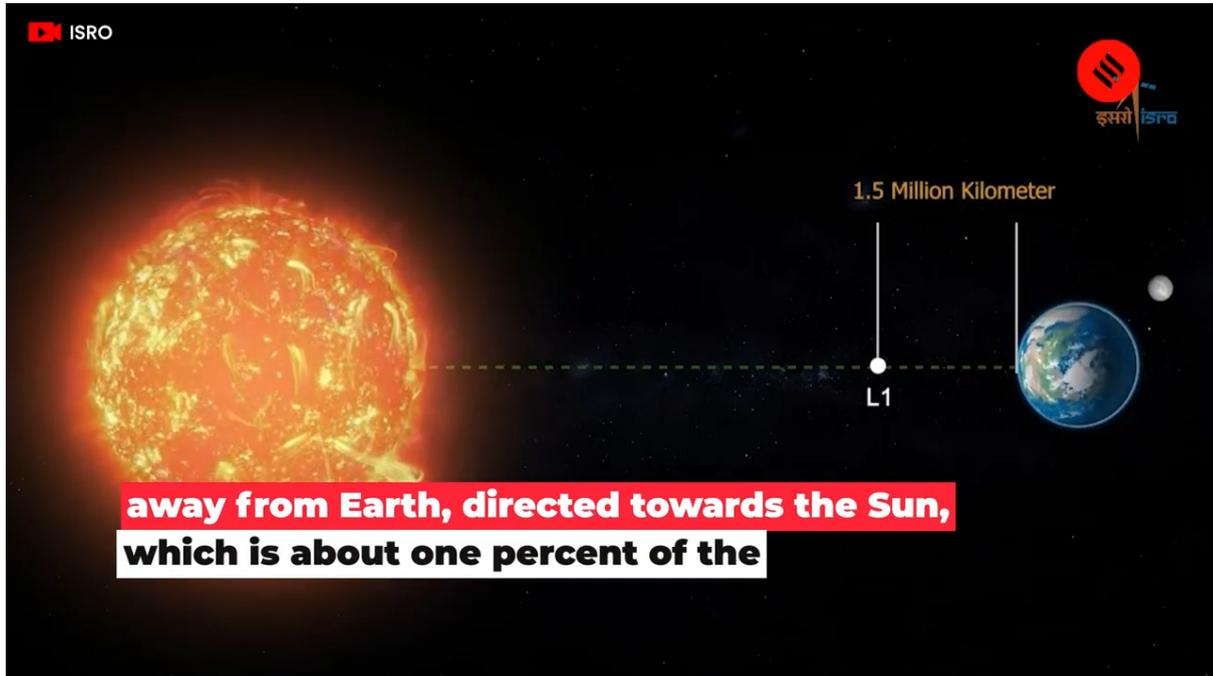
Written by [Devanshi Srivastava](#)

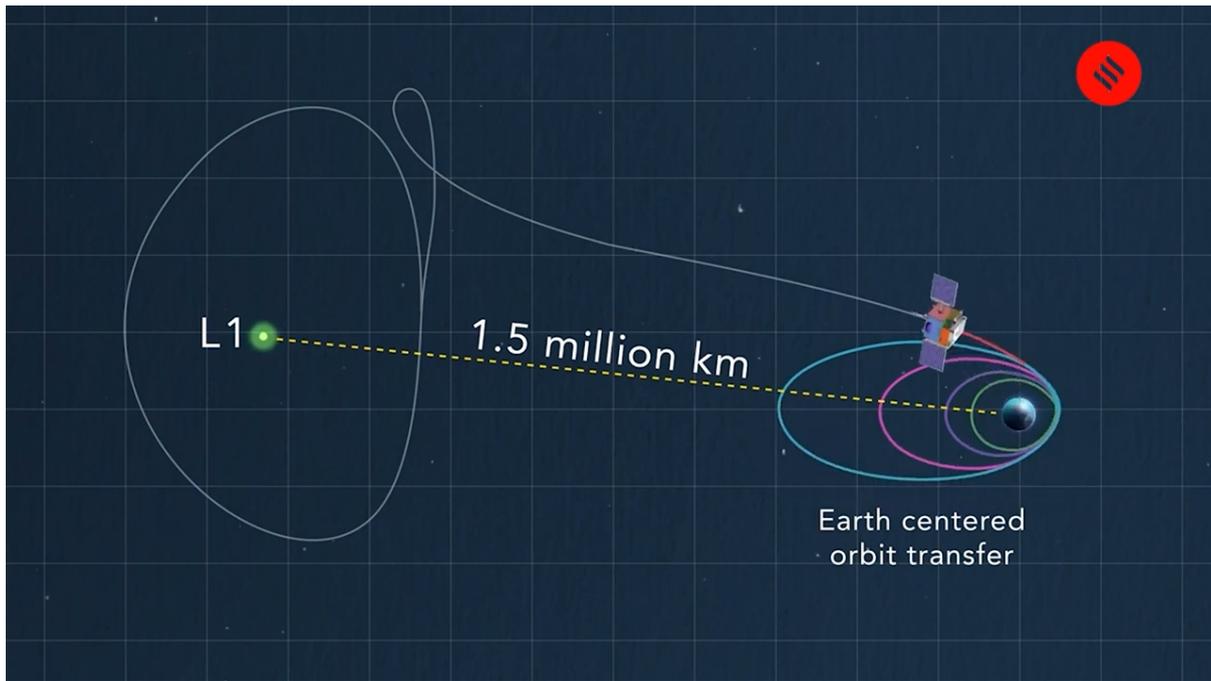
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Though Sun can be studied through ground-based telescopes as well, it is best observed from space outside of earth's atmosphere and magnetic fields, Bhas Bapat, a professor at IISER Pune said. Bapat, an alumnus of Fergusson College, was part of the team that ideated and

developed the ASPEX payload, one of the seven that is going on the Aditya-L1 mission on Saturday.





Aditya-L1, India's first space mission to study the Sun, is set to be launched from the Sriharikota launching ranges around noon on Saturday. Bapat worked for a decade at the Physical Research Laboratory (PRL) in Ahmedabad where the ASPEX payload, meant to study the phenomena of solar winds, was developed.

"My group and I at PRL proposed the ASPEX instrument in 2013 and gave a more detailed but still preliminary prototype in 2014 when it was accepted as an instrument for the Aditya mission," Bapat told The Indian Express. "We proposed the idea to build an instrument to specifically study the protons and alpha particles emitted by the Sun as a way of understanding it which can be best done from space outside the earth's atmosphere and magnetic range."

Even as he moved to IISER Pune the following year, 2014, he kept visiting PRL Ahmedabad on a regular basis and played a significant role in developing the SWIS (Solar Wind Ion Spectrometer) subsystem of the ASPEX (Aditya Solar Wind Particle EXperiment).

"The Sun emits photons among several other particles. Due to complex nuclear reactions, protons and alpha particles leave the Sun and this is what we call solar wind. If we examine this solar wind, we get some window into the reactions happening in the core of the Sun."

Ahead of the launch, Bapat admitted to being anxious. “Space is a harsh environment and there are temperature extremes and radiation. There can be dramatic changes and it is very different from a laboratory environment so there is anxiety about that,” he said.

“We handed over the instrument to the spacecraft team six months ago. So, whether the instrument is now sitting in the spacecraft assembly hall or on top of the rocket, it is out of our hands,” he said. “These projects have long gestation periods needing great teamwork and the efforts of many people go into it.”