

Physical Research Laboratory, Ahmedabad

ISRO Structured Training Programme on

Deep Space Exploration

31 August – 4 September, 2026



Programme

31st August 2026

Inaugural Session

(Venu: K. R. Ramanathan Auditorium)

08:45 – 09:15	Registration and Ice Breaker	
09:15 – 09:20	Lightning of Lamp	By Dignitaries
09:20 – 09:25	Welcome Address	– Dr. Kuljeet Kaur Marhas <i>Course Director, STP 2026</i>
09:25 – 09:35	Address by Director, PRL	– Prof. Anil Bhardwaj, <i>Director, Physical Research Laboratory, Ahmedabad</i>
09:35 – 09:40	Overview of the Course	– Dr. Satyajit Seth <i>Convenor, STP 2026</i>
09:40 – 09:45	Vote of Thanks	– Dr. A K Sudheer <i>Member, STP 2026</i>
09:45 – 10:30	Inaugural Talk: “SUN - the Head of Solar System” (Session Chair: Prof. Pallam Raju, <i>Dean Physical Research Laboratory, Ahmedabad</i>)	Prof. Nandita Srivastava, <i>Professor, Physical Research Laboratory, Ahmedabad</i>
10:30 – 11:00	Group photo and high tea	

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“Deep Space Exploration”

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Venue for Lectures: Ground Floor Lecture Hall, Navrangpura Campus

Venue for Project: Thaltej Campus (P2, P4, and P6) and
Main Campus (P1, P3 and P5)

Schedule

Time (Hrs)	Monday 31 August (Day 1)	Tuesday 1 September (Day 2)	Wednesday 2 September (Day 3)	Thursday 3 September (Day 4)	Friday 4 September (Day 5)
06:00 - 07:00	YOGA @your own place				
09:00 - 09:30	Registration and Ice Breaker				
09:30 - 10:30	Inauguration	Lecture 4 (L4)	Lecture 8 (L8)	Lecture 9 (L9)	Lecture 13 (L13)
10:30 - 11:00					
11:00 - 12:00	Lecture 1 (L1)	Lecture 5 (L5)	Lab visit @ Main campus	Lecture 10 (L10)	Lecture 14 (L14)
12:00 - 13:00	Lecture 2 (L2)	Lecture 6 (L6)		Lecture 11 (L11)	Lecture 15 (L15)
13:00 - 14:00					
14:00 - 15:00	Lecture 3 (L3)	Lecture 7 (L7)	Free time for Sightseeing	Lecture 12 (L12)	Project Presentation
15:00 - 16:00	Transit to Thaltej and Tea break			Transit to Thaltej	Feedback and Concluding Session + High tea
16:00 - 18:00	Project	Project		Project	
18:00 -	Return to the hotel		Director's Dinner (19:00 onwards)	Return to the hotel	

Table 1: List of Speakers and Topics

Lecture No.	Title	Topic	Speakers	Theme
	SUN - the Head of Solar System	Sun	Nandita Srivastava	General
L1	The Moon and the Early Earth: A Shared Geological History	Cosmic Siblings: The Moon and Earth's Ancient Bond	Jyoti Ranjan Ray	Our Solar
L2	Inner planets: science and exploration	From Mercury's Furnace to Mars' Mysteries	Dwijesh Ray	
L3	Oceans in our solar system	Ocean Worlds and the Quest for Life	Arvind Singh	
L4	Asteroids, Comets, and Interstellar Interlopers	The Solar System's Nomads	Shashikiran Ganesh	
L5	Exploiting Observations for Atmospheric Modeling	Weather Reports from Light Years Away	Narendra Ojha	
L6	The physics of the heliosphere: Our deep-space environment	The Sun's Invisible Empire	Aveek Sarkar	Sun-Earth
L7	Making sense of the Heliosphere and Space weather!	Space Weather 101: Living with an Active Star	Dibyendu Chakrabarty	
L8	From Stellar birth to planet- forming disks	From nearby clouds to distant Galaxies: unveiling stellar nurseries with modern telescopes	Manash Samal	Astronomy in Deep Space
L9	Exploring deep space through extra-galactic astronomy	The Universe's Greatest Selfie	Sunil Chandra	
L10	Exoplanet detection & characterisation: PARAS and BOSE	Ground and space-based observations for deep space exploration: exoplanet detection	Abhijit Chakraborty	
L11	Managing big data to understand our universe	AI in particle physics- dark matter!	Partha Konar	

L12	Messengers from deep space: beyond photons	Neutrinos and hidden truth!	Ketan Patel	Advanced Technology
L13	Fundamentals of quantum communication	Quantum Chats and Cosmic Secrets	Goutam Samanta	
L14	Quantum communication from Lab to implementation	The Road to the Quantum Internet	Shashi Prabhakar	
L15	Planetary instruments	Planetary Detectives: Tools of Discovery	M. Shanmugam	

Table 2: Projects

S. no.	Project	Division	PRL member
P1	Explainable AI/ML for Earth System Sciences	GSDN	Akash Ganguly
P2	Lunar thermophysical model	PSDN	Dr. Durga Prasad
P3	Analyses of solar wind energetic particles data from ASPEx onboard Aditya L1	SPASC	Dr. Dibyendu Chakrabarty (Jacob and Abhsihek)
P4	Comet Spectra from Mt Abu telescope	A&A	Dr Sashikiran Ganesh
P5	Heterostructure fabrication of quantum material	AMOPH	Dr. Satyendra Gupta
P6	Laboratory astrochemistry	AMOPH	Dr. Bhalamurugan Sivaraman