



Department of Aerospace Engineering
Indian Institute of Space Science and Technology

Valiamala, Thiruvananthapuram - 695 547, Kerala

ASTRA

Aerospace Symposium on
Technological Research Advancements

AGNI 2025

ISHMT - RCT Annual Colloquium on
Advances in Energy Systems

Pre-Conference Event

KSPACE - Lift Off

Workshop on Space Technology Applications for Budding Entrepreneurs

2025
JUNE

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in association with

ISHMT - Regional Chapter Trivandrum & KSPACE



About Us

IIST, Thiruvananthapuram

Indian Institute of Space Science and Technology (IIST), is Deemed to be University under Section 3 of the UGC Act 1956. It functions as an autonomous body under the Department of Space, Government of India. It is the first of its kind in the country to offer high-quality education at the undergraduate, graduate, doctoral and post-doctoral levels in areas with a special focus on space sciences, space technology and space applications.

ASTRA

Launched in 2024, ASTRA is a growing national symposium aimed at fostering research and collaboration in Aerospace Engineering. Supported by leading academic and research institutions, it brings together experts from academia and industry to share knowledge, explore emerging technologies, and discuss current advancements. ASTRA 2025, the second edition of the symposium, is hosted by the Department of Aerospace Engineering at IIST, Thiruvananthapuram. It is organised in association with the Indian Society for Heat and Mass Transfer – Regional Chapter Trivandrum (ISHMT–RCT) and KSPACE – a Kerala government initiative supporting space-sector startups. The symposium promotes interdisciplinary dialogue in engineering and applied sciences, aiming to strengthen the national aerospace research community.

ISHMT - AGNI 2025

AGNI, the annual colloquium of the Indian Society for Heat and Mass Transfer – Regional Chapter Trivandrum (ISHMT–RCT), features invited talks by distinguished speakers. This year, AGNI will be held alongside ASTRA, with the theme Advances in Energy Systems. The Indian Society for Heat and Mass Transfer (ISHMT), established in 1974, advances research in heat and mass transfer technologies. Headquartered at the Heat Transfer and Thermal Power Laboratory, IIT Madras, it serves as a platform for scientists, engineers, researchers, and industry professionals. ISHMT promotes knowledge exchange through conferences, lectures, technical meetings, and publications, and encourages national and international collaborations. ISHMT–RCT includes members from Kerala and nearby districts in Tamil Nadu. It promotes regional research, collaboration, and knowledge-sharing across academic and industrial sectors.

KSPACE - Lift Off

Kerala Spacepark (KSPACE) is a strategic initiative by the Government of Kerala to promote industries in space technology and related fields in aviation and defence. Thiruvananthapuram has played a pivotal role in India's space journey, beginning with the establishment of the Thumba Equatorial Rocket Launching Station (TERLS) in 1962. The city hosts major ISRO centres, including the Vikram Sarabhai Space Centre (VSSC), Liquid Propulsion Systems Centre (LPSC), and ISRO Inertial Systems Unit (IISU), as well as BrahMos Aerospace Thiruvananthapuram Ltd (BATL). KSPACE aims to leverage this robust ecosystem to attract investments in the aerospace sector and generate high-tech employment opportunities for youth. "Lift Off" is being organised by KSPACE to support budding entrepreneurs through expert guidance on space technology applications and experience sharing by start-ups, promoting dialogue and collaboration in this emerging sector.

Keynote Addresses



Shri. M Mohan
Director LPSC, ISRO

India's Human Spaceflight Mission – 'GAGANYAAN'



Ms. Hiral Shah
Senior Manager, Gas Turbine R&D,
Siemens India

Applications of Machine Learning in Gas Turbines



Dr. A Manjunath
Technical Director, Scientist G,
GTRE, DRDO

*Manufacturing Aspects of Gas Turbine
and its Challenges*



Shri. K R Jyothilal IAS
Additional Chief Secretary
Finance Department, Govt. of Kerala

*Kerala Hydrogen Valley- Opportunities for
Research and Start-up Companies*



Dr. M Angappan
Group Director (Composites), Scientist G
Aeronautical Development Agency (ADA)

*Materials and Manufacturing for Light
Compact Aircraft: Trends and Challenges*



Dr. Gangan Prathap
KSHC Member, Former VC - CUSAT
Shanti Swarup Bhatnagar Awardee

*How many scientists/technologists
should a nation have? - an interactive session*

SYMPOSIUM TRACKS

Submit your extended abstract, share your work with a wider audience, or simply attend paper presentation sessions to learn from ongoing research in:

- Thermal and Propulsion
- Aerodynamics and Flight Mechanics
- Structures and Design
- Materials, Manufacturing, and Industrial Engineering

Important Dates

Abstract Submission extended to	: June 08, 2025
Notification of abstract acceptance on or before	: June 10, 2025
Registration closes	: June 13, 2025

PROGRAM SCHEDULE

12th June 2025

09:30 - 17:15 KSPACE Lift Off - Workshop on Space Technology Applications for Budding Entrepreneurs

13th June 2025

09:00 - 09:30	Registration
09:30 - 10:40	Inaugural Session
10:40 - 11:30	Keynote Lecture 1
11:30 - 11:45	Tea Break
11:45 - 12:30	Keynote Lecture 2
12:30 - 13:30	Lunch Break
13:30 - 14:30	Technical Session 1
14:30 - 15:15	Keynote Lecture 3
15:15 - 15:30	Tea Break
15:30 - 16:30	Technical Session 2

14th June 2025

09:00 - 10:15	Technical Session 3
10:15 - 11:00	Keynote Lecture 4
11:00 - 11:15	Tea Break
11:15 - 12:00	Keynote Lecture 5
12:15 - 13:15	Technical Session 4
13:15 - 14:15	Lunch Break
14:15 - 15:00	Keynote Lecture 6
15:00 - 15:15	Tea Break
15:15 - 16:20	Valedictory Session

Faculty Coordinators

Dr. Deepu M (HOD)
Dr. Shine S R
Dr. Manoj T Nair
Dr. Sooraj V S
Dr. Praveen Krishna I R

Contact Us

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Note:

Limited on-campus accommodation available on a first-come, first-served basis.

For Registration, Abstract Submission & more details



iist.ac.in/astra