



**Indian Society of Systems  
for Science and Engineering  
Thiruvananthapuram Chapter**

**Indian National Society for  
Aerospace and Related Mechanisms  
Thiruvananthapuram Chapter**



**FAST-2023**  
(Frontiers of Aerospace Systems and Technologies)  
**National Conference on  
Landing & Recovery systems for  
Aerospace vehicles (LaRA)**

**Date : 30<sup>th</sup> June & 01<sup>st</sup> July 2023**  
**Venue : VSSC, Thiruvananthapuram**

**IN ASSOCIATION WITH**



**Vikram Sarabhai Space Centre  
Thiruvananthapuram**



**Liquid Propulsion Systems Centre  
Thiruvananthapuram**



**Indian Institute of Space Science and Technology  
Thiruvananthapuram**



**ISRO Inertial Systems Unit  
Thiruvananthapuram**



**ISRO Propulsion Complex  
Mahendragiri**

New-generation reusable space transportation systems and robotics plays a vital role in space exploration area and are the need of the hour. Critical technologies for stage recovery and reuse like landing gear/leg mechanisms, wheel brake systems, parachutes & other aero braking systems, advanced vision based navigation system, thrust vector control, fin tip actuation, fault tolerance and redundancy management need to be advanced. The future of robotics in space exploration is bright and exciting. Robotic technology has already played a critical role in many space missions, such as the Mars Rovers and the International Space Station's robotic arm. Potential areas of application includes interplanetary sample acquisition missions, maintaining critical habitats and space communication infrastructure in deep space, asteroid mining, satellite servicing, space debris mitigation etc.

Indian Society of Systems for Science and Engineering (ISSE) is a professional body formed to encourage system engineering in the field of science and technology. Indian National Society for Aerospace and Related Mechanisms (INSARM) is a professional body which aims to promote R&D activity on aerospace and related mechanisms. These societies aim to be a platform to share years of expertise and knowledge gained by the aerospace community and ensure technology integration at the national level through a system engineering approach. To ensure active participation and coordination among government research labs, private players and start-ups, a conference on "Frontiers of Aerospace Systems and Technologies (FAST-2023)" have become a pressing need. The theme for this year's conference is "Landing & Recovery systems for Aerospace vehicles (LaRA)". Government laboratories, R & D organisations, private businesses, industries, and academia are all encouraged to participate in the conference actively. The conference organised by ISSE, Thiruvananthapuram chapter and INSARM, Thiruvananthapuram chapter in association with VSSC, LPSC, IPRC, IISU and IIST aims to foster interaction among the innovators and thought leaders working in the areas of reusable spacecraft mechanisms and robotics through paper presentations, poster sessions, keynote addresses, invited talks and exhibition of aerospace mechanisms used in reusable launch vehicles and aircrafts. Prospective authors are encouraged to submit original work as extended abstracts in the following areas.

***Key topics include-***

- Landing gear mechanisms for runway and vertical landing
- Parachutes and aero braking systems
- Actuators for aircrafts and reusable launch vehicles (RLVs)
- Door open and closing mechanisms
- Mechanisms for docking and berthing
- Redundancy and fault tolerance in mechanisms
- Static and dynamic analysis of mechanisms in aircrafts and RLVs
- Materials and manufacturing processes for landing gears and mechanisms
- Wheel and brake system for runway landing
- Anti-lock Braking System (ABS)
- Recovery of launch vehicle stages
- Mechanisms for space robotics
- Mechanisms for drones and Unmanned Aerial Vehicles (UAVs)
- Robotics for space debris mitigation and satellite servicing
- Mechanisms for planetary rock sampling and return
- Micro/ Nanobots and legged robots
- Mechanisms for air-breathing engines
- Inflatable systems for landing
- Mechanism for crew module landing and recovery

## PATRONS

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## IMPORTANT DATES

Extended abstract submission :	27 <sup>th</sup> May, 2023	Last date for registration :	15 <sup>th</sup> June, 2023
Abstract acceptance :	10 <sup>th</sup> June, 2023	Date of conference :	30 <sup>th</sup> June & 1 <sup>st</sup> July 2023
Full paper :	20 <sup>th</sup> June, 2023		

## Registration Details

Participation in FAST-2023 requires a valid registration. All participants shall register for the conference. For registration, duly filled registration form shall be forwarded to [issefast2023@gmail.com](mailto:issefast2023@gmail.com) on or before 15<sup>th</sup> June 2023. Please visit the website [www.isseindia.co.in](http://www.isseindia.co.in) or [www.insarm.org](http://www.insarm.org) for details on registration form, format of extended abstract, full paper and procedure for uploading them.

## Conference Fee

	Delegates	Students
Registration Fee	₹ 5000/-	₹ 2000/-

## Sponsorship

Associated industries and institutions are requested to support FAST-2023 by sponsoring the conference events.

SPONSORSHIP TYPES			SOUVENIR ADVERTISEMENT	
Type	Amount	Benefits	Category	Tariff
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Silver	₹ 1,00,000/-	<ul style="list-style-type: none"><li>1 free delegate</li><li>Full page advertisement in Souvenir</li></ul>	Full Page Inside	₹ 40,000/-
			Half Page Inside	₹ 30,000/-

  

EXHIBITION STALL	
Tariff	₹ 50,000/-

## Payments

All payments shall be made online through RTGS/NEFT/IMPS to 'Indian Society of Systems for Science and Engineering' (ISSE), Thiruvananthapuram Chapter.

Account No. 34976894245

IFSC : SBIN0002279

State Bank of India, Thumba Branch, Thiruvananthapuram-695022

website also : [www.isseindia.co.in](http://www.isseindia.co.in) or [www.insarm.org](http://www.insarm.org)

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