# Frontiers of Aerospace Systems and Technologies FAST-2023

# National Conference on Landing & Recovery systems for Aerospace vehicles (LaRA)

## Call for Papers

**The theme of the National Conference on Frontiers of Aerospace Systems and Technologies (FAST-2023) to be held from June 23-24, 2023 at Vikram Sarabhai Space Centre, Thiruvananthapuram**, **is Landing & Recovery systems for Aerospace vehicles (LaRA)**. This is being organized by ISSE, Thiruvananthapuram chapter and INSARM, Thiruvananthapuram chapter, in association with VSSC, LPSC, IPRC, IISU and IIST. The conference aims to encourage communication among the researchers, academicians, innovators and thought leaders working in the area of reusable spacecraft mechanisms & robotics and to share their ideas, through contributed paper presentations and interactive poster sessions.

This is expected to serve as a forum for exchange of lessons learnt and best practices from experience gained by practitioners of reusable spacecraft mechanisms and robotics in aerospace, aeronautics and aviation sector. Keynote lecture and invited talks by eminent speakers from leading R&D institutions, academia & industry and panel discussions are planned in the conference for the benefit of the participants.

It is a great opportunity for aerospace aspirants and practitioners to enhance their knowledge-base through multi-disciplinary interactions. It will be a very unique multidisciplinary opportunity for authors to contribute original research, surveys, case studies and applications. Previously unpublished manuscripts offering novel contributions in any aspect related to the following areas are solicited from prospective authors for presentation in the conference.

**Topics-**

1. Landing gear mechanisms for runway and vertical landing
2. Parachutes and aero braking systems
3. Actuators for aircrafts and reusable launch vehicles (RLVs)
4. Door open and closing mechanisms
5. Mechanisms for docking and berthing
6. Redundancy and fault tolerance in mechanisms
7. Static and dynamic analysis of mechanisms in aircrafts and RLVs
8. Materials and manufacturing processes for landing gears and mechanisms
9. Wheel and brake system for runway landing
10. Anti-Lock Braking System (ABS)
11. Recovery of launch vehicle stages
12. Mechanisms for space robotics
13. Mechanisms for drones and Unmanned Arial Vehicles (UAVs)
14. Robotics for space debris mitigation and satellite servicing
15. Mechanisms for planetary rock sampling and return
16. Micro/Nanobots and legged robots
17. Mechanisms for air-breathing engines
18. Inflatable systems for landing
19. Mechanisms for crew module landing and recovery

Prospective authors are invited to submit an Extended Abstract as per the submission guidelines listed below to **issefast2023@gmail.com** on or before 20th May, 2023.

**Submission Guidelines**

- Original contributions that have not been submitted for publication or has not been published in any other conferences/ journals are solicited.
- Authors must ensure the relevance of their submissions to the scope and theme of the conference.
- Prospective authors are requested to submit an Extended Abstract in standard format in 2 pages in PDF format. The authors shall thoroughly check the manuscripts for spelling, grammar, quality of images and other formatting aspects prior to submission. The manuscripts that are not up-to-the-mark in the above aspects shall be rejected.
- Authors shall note that their submissions may be subject to an early rejection, if found plagiarised.
- Necessary centre level peer-reviews and department approvals (as applicable) shall be obtained prior to submission.
- The submitted manuscripts will be peer-reviewed by experts nominated by FAST Technical Committee and formal acceptance notification along with review comments will be intimated to authors by mail.