



MADRAS INSTITUTE OF TECHNOLOGY  
 DEPARTMENT OF AEROSPACE ENGINEERING  
 ASSOCIATION OF AERONAUTICAL ENGINEERS



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PRESENTS

**FLIGHT'26**

# ROCKET BUILDING

**ENTRY FEE**

**RS.999/- PER TEAM**

**3 IN A TEAM**



**MIT**



**21 MARCH 2026**



**9.30 AM - 4.30 PM**

**CONTACT:**

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# ROCKET BUILDING

## INTRODUCTION AND DESCRIPTION

FLIGHT'26 is an advanced, hands-on rocket building workshop where participants build two rockets – one for launch testing and one to take home.

Explore rocket propulsion, aerodynamics, propellant composition, CEA performance analysis, and recovery system design. Under expert guidance, assemble, launch, and witness powered flight with parachute recovery – all in one high-energy experience.

## WORKSHOP OVERVIEW

The workshop begins with a structured introduction to the principles of rocket flight, covering thrust, drag, aerodynamic forces, and stability criteria.

Participants will then:

- Assemble two model rockets (launch model + take-home model)
- Learn propellant composition techniques
- Perform a guided CEA run to analyze propellant performance
- Assemble structural components and integrate the propulsion system
- Design and understand parachute-based recovery systems
- Launch the rocket and observe real-time recovery

This immersive, hands-on experience strengthens problem-solving skills, practical fabrication ability, and conceptual clarity in propulsion and flight mechanics.

**KIT WILL BE PROVIDED - TWO ROCKETS PER TEAM**

**PARTICIPATION CERTIFICATES WILL BE PROVIDED TO ALL PARTICIPANTS**

**REGISTRATION FEE: INR 999/- PER TEAM (MAX 3 MEMBERS)**

**LUNCH WILL BE PROVIDED**

## SCHEDULE

TIMING	EVENT
09:45 AM – 10:45 AM	Lecture on Fundamentals of Rocket Science
10:45 AM – 11:30 AM	Lecture on Rocket Design Using MATLAB
11:30 AM – 12:30 PM	Rocket Structure Assembly
12:30 PM – 01:25PM	Lunch Break
01:25 PM – 02:15 PM	Lecture on Propellant Chemistry & CEA Analysis
02:15 PM – 03:00 PM	Recovery System & Arduino Integration
03:00 PM – 04:30 PM	Launch & Parachute Deployment

FOR ANY QUERIES, CONTACT:

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