

## **FLIGHT 2025**

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

#### **ROCKET BUILDING WORKSHOP**

**APRIL 5** 

09:00 AM- 04:00 PM

#### **DESCRIPTION:**

Blast Off with Our Rocket-Building Workshop at FLIGHT'25! Ever dreamed of building and launching your own rocket? Join our hands-on Rocket-Building Workshop, where science meets excitement! In this workshop, you'll learn the fundamentals of propulsion, aerodynamics, and rocket stability while building your own solid-fuel rocket using a potassium nitrate based propellant, sturdy cardboard tube body. Guided by our instructors, you'll design and assemble your rocket and witness the thrill of launch day as your creation soars into the sky. With a focus on both safety and innovation, this workshop is perfect for aspiring aerospace enthusiasts, engineering students, and anyone eager to explore the science behind rocketry. Experience the power of controlled combustion, precision engineering, and the excitement of flight! *A* 

#### **WORKSHOP OVERVIEW:**

The workshop begins with an introduction to the fundamental principles of rocket flight, covering key concepts such as thrust, drag, and get hands-on aerodynamics. Participants will then experience assembling their own model rockets under the guidance of experienced instructors. They will learn how to construct the rocket's structure correctly and securely attach the rocket motor. Building a model rocket presents an exciting challenge, requiring attention to detail, the use of tools and materials, and problem-solving skills to address any issues that arise during assembly. Once completed, participants will have the opportunity to launch their rockets in an open outdoor space. This hands-on experience not only brings the principles of rocket flight to life but also encourages curiosity and exploration in an engaging and interactive way.

#### AGENDA:

TIMING	EVENT
09:00 AM - 09:45 AM	Inauguration
9:45 AM - 10:45 AM	Lecture on fundamental rocket science
10:45 AM - 11:45 AM	Lecture on Propulsion Systems
11:45 AM - 12:30 PM	Fabrication of Rocket Structures
12:30 PM - 1:25 PM	Lunch Break
01:30 PM - 02:30 PM	Propellant Mixing and Casting
02:30 PM - 03:30 PM	Assembling
03:30 PM - 04:30 PM	Launching

#### KIT WILL BE PROVIDED

### PARTICIPATION CERTIFICATES WILL BE PROVIDED TO ALL PARTICIPANTS

#### **REGISTRATION FEE: INR 600/-**

For any queries, contact:

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