



FLIGHT 2024

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

AVIONICS INTEGRATION & PROGRAMMING

MARCH 16- MARCH 17

Introduction:

Avionics is a combination of aviation and electronics. Avionics equipment on a modern military or civil aircraft account for around 40 to 70% of aircraft cost. Hence, this sector is most significant in the Aerospace industry, along with a combination of one's enthusiasm, creativity, and technical skills, the sector has the potential of spring great heights. However, we observe that very less platforms are available to develop such technical skills. This workshop offers the platform wherein one can develop a few of such technical skills. This workshop will form a bridge between enthusiasts and avionics systems, by giving them hands-on experience in integrating avionics systems using Arduino boards and an Introduction to ADA programming

Description:

Arduino boards are microcontroller boards that help us embed various hardware systems and form a working model in the desired way. We can program the Arduino board using Arduino IDE which can run on various platforms, here IDE stands for Integrated Development Environment. These boards are user-friendly and most recommended for beginners. We will be using the same to develop and integrate our avionics systems. ADA is a language designed especially for the Department of Defense (DOD) Advanced Research Project Agency and is the standard language for embedded software and provides excellent support for the development of typical aerospace applications. An introduction to ADA programming would open a gateway for participants interested in the same.

Schedule:

TIMING	EVENT
09:00 AM- 09:45 AM	Inauguration
09:45 AM- 10:45 AM	Introduction and Scope of Avionics
10:45 AM- 11:15 AM	Introduction to ADA Programming
11:15 AM- 12:30 PM	Introduction to Arduino and Basic operations
12:30 PM- 01:25 PM	Lunch
01:30 PM- 03:00 PM	Integration and testing of various sensors using Arduino
03:00 PM- 04:00 PM	Solving final problem statement

Outcomes:

On completion of this workshop, students will be able to:

1. Appreciate the role of avionic systems in the aircraft industry.
2. Use Arduino boards to build integrated systems for various purposes.
3. Basic Introduction to ADA programming.

Takeaway: Printed material for Arduino, and ADA.

PARTICIPATION CERTIFICATES WILL BE PROVIDED TO ALL PARTICIPANTS

REGISTRATION FEES : INR 350/- per head

For any queries, feel free to contact:

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