



FLIGHT 2025

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

Non-Destructive Testing (NDT) Workshop

APRIL 5

09:00 AM- 04:00 PM

Description:

The Non-Destructive Testing (NDT) Workshop is a hands-on training program designed to provide participants with a comprehensive understanding of NDT techniques used in aerospace, manufacturing, and industrial applications. NDT is a crucial quality control process that evaluates materials and components for defects without causing damage to the tested object.

Workshop Objectives:

- Introduce participants to the principles and importance of NDT in engineering and aerospace.
- Provide practical training on various NDT methods.
- Enhance knowledge of defect detection, material integrity, and structural evaluation.
- Teach industry-standard safety protocols and best practices.

Topics Covered:

- Dye Penetrant Testing (PT): A surface inspection method using liquid dye to detect cracks and defects in non-porous materials.
- structures Acoustic Emission Testing (AE): A real-time monitoring technique that detects internal structural defects by analyzing stress-induced sound waves.
- Ultrasonic Testing (UT): Uses high-frequency sound waves to detect internal flaws, cracks, and thickness variations in solid materials.

- Visual Inspection (VT): The simplest NDT method involving direct examination of surfaces for visible defects, corrosion, or misalignment.
- Bond Testing (BT): A specialized NDT technique for detecting delaminations, weak bonds, and voids in composite and adhesive.

Who Should Attend?

- Engineering students (Mechanical, Aeronautical, Aerospace, Civil, etc.)
- Manufacturing & maintenance engineers
- Anyone interested in material testing and safety compliance

Outcome of the Workshop:

- Hands-on experience with industry-grade NDT equipment.
- Knowledge of real-world applications in aerospace and manufacturing.
- Ability to identify and analyze defects in materials and structures.
- Certification of participation, adding value to your technical skills and resume.

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

REGISTRATION FEES: INR 250/- per head

For any queries, contact:

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