



ACHARYA INSTITUTE OF TECHNOLOGY





Dept. of Aeronautical Engineering

VAP on

Integration of FEA, Al and Flight Simulation in **Aerospace Engineering**

15th to 19th September, 2025 | 10:00 AM - 5:00 PM ME Block, Acharya Campus







About the Program

This Value-Added Program (VAP) is designed to equip students with advanced skills in Finite Element Analysis (FEA), Artificial Intelligence (AI) applications, and Flight Simulation, all of which are critical to modern aerospace engineering. The program emphasizes the integration of computational tools, intelligent systems, and simulation technologies to analyze, design, and optimize aerospace structures and flight operations. By combining theory with hands-on training, it prepares participants to tackle real-world challenges in the aerospace industry with innovation, precision, and efficiency.

Objectives of the Program

- To introduce the fundamentals and applications of Finite Element Analysis (FEA) in aerospace structures and systems.
- To explore the role of Artificial Intelligence (AI) in design optimization, predictive maintenance, and autonomous aerospace systems
- · To provide hands-on exposure to flight simulation tools for understanding aircraft dynamics and pilot-machine interaction.
- To demonstrate how FEA results and AI models can be integrated into flight simulation for realistic and efficient analysis.
- To build problem-solving skills by engaging participants in case studies/ projects relevant to modern aerospace engineering.

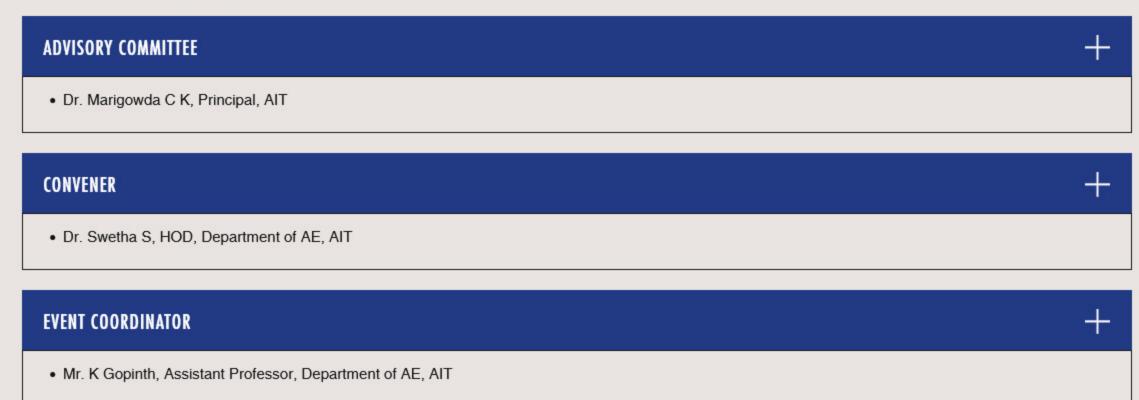
Expected Outcomes of the Program

- . To gain practical knowledge of FEA tools and their use in analyzing aerospace components.
- To understand how AI techniques can complement traditional engineering methods in aerospace applications.
- . To develop the ability to use flight simulation platforms to study aircraft behavior under various conditions.
- To correlate physics-based models (FEA) with Al-driven approaches for faster and more reliable aerospace simulations.
- To enhanced technical competency and interdisciplinary insight, improving their readiness for advanced studies, research, or industry roles.

Target Audience: V Semester AE students

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Committee Members



Resource Persons Details



Mr. Karunesh Parakh Designation: CEO at Tantalizers' Alter Space, Bengaluru, Karnataka, India



Mr. Shoeb Ahmed Adeel Designation: Director, Rachisi Solutions Private Limited, Bengaluru, Karnataka, India



Mr. Rishikesh Sahay Designation: Founder & CEO, Emerging Auto Solutions & Technik, East Auto Training Academy OEM Skilling Partner, Driving Innovation in Automotive Workshop Solution, Certified Carbody Expert-GYS, France ABR Expert-WorldSkills













LOCATE US

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Event Coordinator

Mr. K Gopinth Assistant Professor, Department of AE, AIT