



MODELING AND ANALYSIS LAB (Room No: 3310)

Modeling and Analysis Lab Objective:

The **Modelling and Analysis Lab** provides hands-on experience to students in Aerospace Engineering by utilizing industry-standard tools such as **AutoCAD, CATIA, ANSYS, and MATLAB**. This facility enables students to develop skills in **Computer-Aided Design (CAD), Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD), and Mathematical Modeling**.

Additionally, the lab supports **networking** capabilities, allowing students to access the **internet and digital library resources** for research and academic purposes. This integrated learning environment enhances their technical proficiency and prepares them for real-world engineering challenges.

Lab Area:

- Dimensions: 27 ft × 56 ft
- Total Area: 1512 sq. ft. (140 sq. m)

Modeling and Analysis Lab Equipment:

Computer Systems

1. **Acer Veriton M200 Series**
 - **Quantity:** 20
 - **Configuration:** Intel Core i5-14500, 16 GB DDR5, 512 GB NVMe SSD, 22" Full HD.
 - **Accessories:** Keyboard, Mouse, 22" LCD Monitor
2. **HP Commercial Desktop Systems**
 - **Quantity:** 25
 - **Configuration:** 12th Gen Intel Core i5-12500 (3.00 GHz) / 16GB DDR4 RAM / 512GB SSD
 - **Accessories:** Keyboard, Mouse, 22" LCD Monitor

3. Dell Desktop Systems

- **Quantity:** 27
- **Configuration:** Intel Core i3-3240 / 8GB DDR4 RAM / 512GB SSD
- **Accessories:** Keyboard, Mouse, 18" LCD Monitor

Networking & Power Backup

- **UPS:** MARK APC 6KV (01 Unit)
- **Switches:** D-Link 24-Port Gigabit Switch (05 Units)

Additional Equipment

- **Portable Sound System & Collar Microphone**
- **BenQ Projector (01 Unit)**
- **3D-Printer**

S. No.	Computer Systems	Quantity
1	Acer Veriton M200 Series – Intel Core i5-14500, 16 GB DDR5, 512 GB NVMe SSD, 22" Full HD.	20
2	HP Pro Tower 280 G9 E PCI Desktop PC , 12th Gen Intel Core i5-12500 (3.00 GHz) / 16GB DDR4 RAM / 512GB SSD / Keyboard / Mouse / 22" LCD Monitor	25
3	Dell, Intel Core i3-3240 / 8GB DDR4 RAM / 512GB SSD / Keyboard / Mouse / 18" LCD Monitor	27
	Total	72

Lab In-Charge

- Mr. Nazumuddin Shaik, M. Tech, (Ph.D).
Senior Assistant Professor, Department of Aerospace Engineering

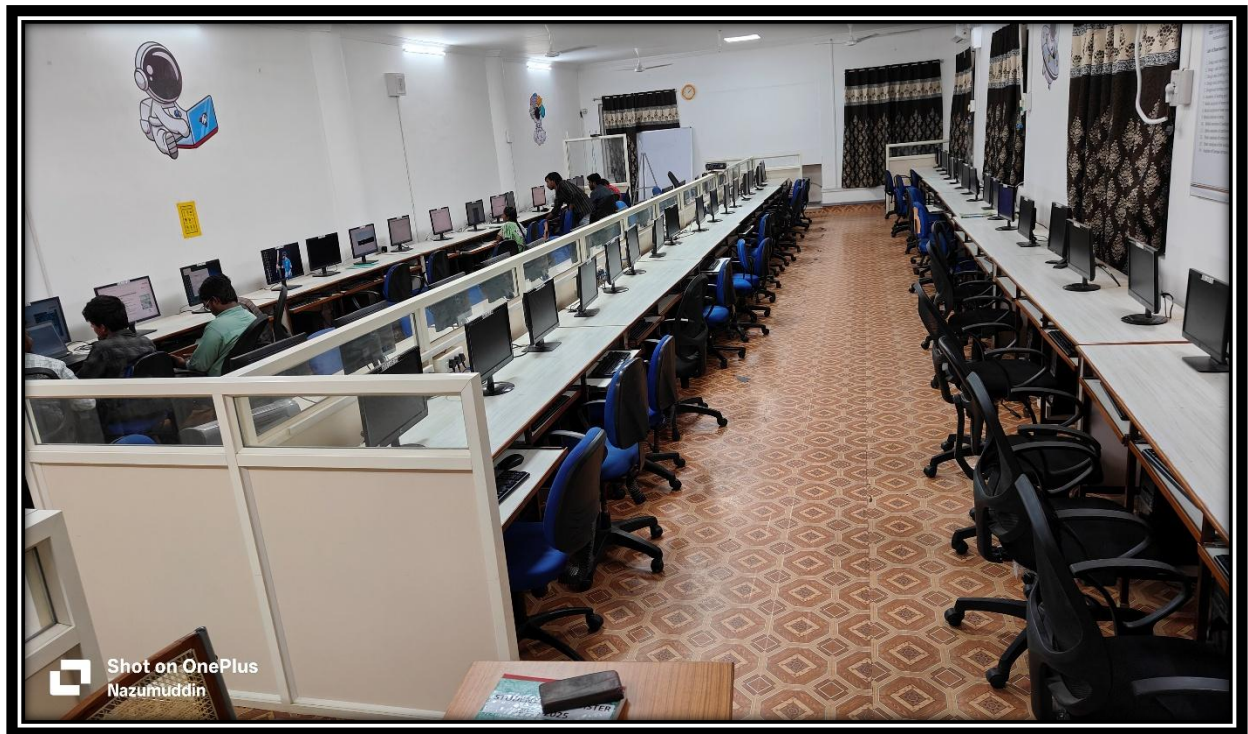
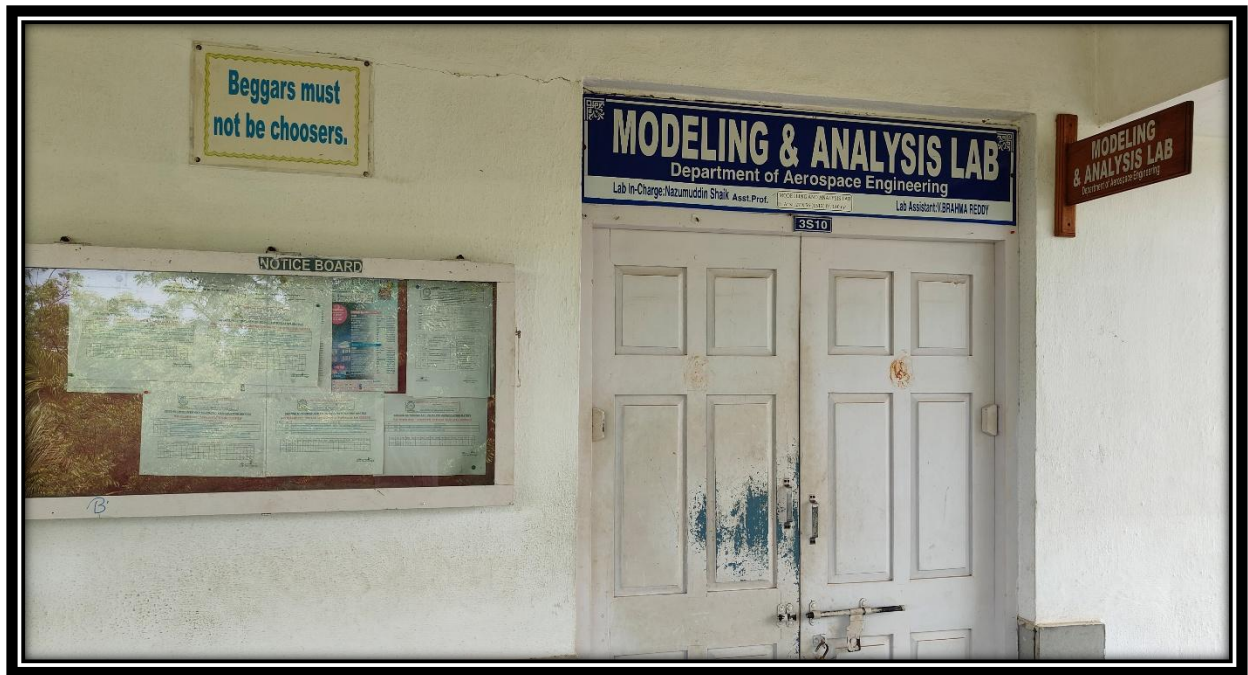
Supporting Staff

- Mr. V. Brama Reddy
Lab Assistant, Department of Aerospace Engineering

Modeling and Analysis Lab Equipment Cost Summary

S. No.	Name / Configuration	Quantity	Total Cost (INR)
1	Acer Veriton M200 Series – Intel Core i5-14500, 16 GB DDR5, 512 GB NVMe SSD, 22" Full HD.	20	₹13,70,000/-
2	HP Pro Tower 280 G9 E PCI Desktop PC, 12th Gen Intel Core i5-12500 (3.00 GHz) / 16GB DDR4 RAM / 512GB SSD / Keyboard / Mouse / 22" LCD Monitor	25	₹13,09,300/-
3	Dell, Intel Core i3-3240 / 8GB DDR4 RAM / 512GB SSD / Keyboard / Mouse / 18" LCD Monitor	27	₹9,07,200/-
4	UPS MARK APC 6KV	01	₹45,600/-
5	D-Link 24-Port Switch	05	₹14,250/-
6	Portable Sound System & Collar Microphone	01	₹22,900/-
7	32GB Pen Drive	02	₹1,440/-
8	Vacuum Cleaner	01	₹3,999/-
9	Air Conditioning Unit	04	₹2,14,800/-
10	LCD Projector	01	₹29,000/-
11	3D Printer	01	₹84,590/-
Total Cost			₹40,03,079/-

Lab Photos:







3D-Printer