



**METHODIST**  
**COLLEGE OF ENGINEERING & TECHNOLOGY**  
[Autonomous Institution]

Accredited by NAAC with A+ and NBA  
Affiliated to Osmania University & Approved by AICTE

Dt: 05/06/2024

**CIRCULAR**

**Subject:** Industrial Visit to DYSL-AT Dundigal, Secunderabad, Telangana.

**Date and Time of Visit:** 12/06/2024. & 10:00 Am to 1:00 PM.

**To:** All B.E. 3<sup>rd</sup>-year Mechanical Engineering Students.

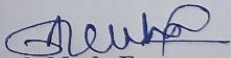
Dear Students,

We are pleased to inform all B.E. second- and third-year students that an **industrial visit to DYSL-AT Dundigal** has been scheduled for **June 12, 2024**. This visit is organized as part of the academic curriculum for the academic year 2023-24 to provide students with practical exposure to industrial processes and applications.

This industrial visit is an excellent opportunity for students to gain practical knowledge, understand the real-world applications of engineering concepts, and interact with industry professionals.

All concerned students are requested to assemble at Methodist College of Engineering & Technology, on June 12, 2024, at 9:15 AM. We will depart for the industry visit to DYSL-AT Dundigal promptly at 9:45 AM. Please ensure punctuality and adherence to the dress code prescribed for the visit.

We look forward to an enriching and insightful experience for all participating students.

  
Head- Mech. Engg.



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### DEPARTMENT OF MECHANICAL ENGINEERING

#### Industrial Visit Report

on

DYSL – AT (Drones – Asymmetric Technologies)

Dundigal Hyderabad

DYSL-AT

**Date of Visit:** 12 June, 2024

**Participants:** B.E. 3<sup>rd</sup>-year Mechanical Engineering Students.

On June 12, 2024, students from the second and third year of B.E. visited DYSL-AT as a part of their industrial visit for the academic year 2023-24. The visit aimed to provide students with current thrust areas of research encompass technologies related to unmanned aerial vehicles for various applications, design and development of AI powered swarm algorithms.

DYSL – AT (Drones – Asymmetric Technologies) is a premier research and development lab located in Dundigal, Hyderabad. It is part of the Defence Research and Development Organisation (DRDO) and specializes in the development of drone technologies and other asymmetric warfare tools. The facility is focused on innovative solutions for the Indian defense sector, particularly in areas requiring advanced drone technologies and unmanned systems.

#### **Objectives of the Visit**

The primary objectives of the industrial visit to DYSL – AT are:

- To understand the role of drone technology in modern warfare and civilian applications.
- To gain insights into the design, development, and testing of drones.
- To learn about the challenges in developing unmanned aerial vehicles (UAVs) and how mechanical engineering principles are applied to overcome these challenges.
- To observe the integration of various engineering disciplines in the development of advanced technological systems.

Moreover, students gained insights into the company's research and development initiatives. DYSL – AT focuses on developing cutting-edge drone technology, including UAVs for various applications such as surveillance, reconnaissance, and targeted attacks. The lab which is equipped with state-of-the-art facilities for research, design, and testing of drones.

**Some of the key areas of research include:**

**Aerodynamics:** Study of drone flight dynamics, stability, and control mechanisms.

**Materials Science:** Research into lightweight and durable materials for drone construction.

**Propulsion Systems:** Development of efficient propulsion systems to enhance drone endurance and speed.

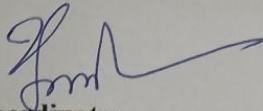
**Sensor Integration:** Incorporation of advanced sensors for navigation, surveillance, and target acquisition.



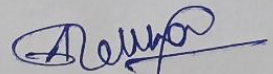
**Autonomous Systems:** Work on AI-based autonomous flight systems for drones.

The visit proved to be an enriching experience for the students, providing them with a glimpse into the future of drone technology and its applications in both defense and civilian sectors. The knowledge gained from this visit will be invaluable in their academic and professional pursuits, particularly for those interested in careers in defense technology and robotics.

Overall, the industrial visit to DYSL- AT served as a significant learning experience for the students, enhancing their understanding of industrial operations and fostering their interest in the field of engineering.



**Coordinator**



**Head- Mech. Engg.**



Gallery of Industry Visit- A.Y: 2023-24







ROLEX Kepler



Kalam's Institute of Youth Excellence Foundation -  
A Youth Transforming Mission || Working for Dr APJ Abdul Kalam's  
Vision & Mission.  
Welcome s You to an Industrial visit to DYSL-AT (Drones -  
Asymmetric Technologies) on 12th June 2024 @ 10AM (10:00-  
01:00PM).

We Inspire  
We Connect  
We Encourage Youth into Defence & Space.

Instructions :  
Please Report @ 10AM Sharp

Must Carry Your College ID card (Aadhar), Note book, Pen &  
Water bottle.

Mobile Phone s, Electronic Gadgets (Smart watches) are Strictly  
not Allowed You Must Deposit @ Gate (Coordinators please collect  
them Put it in one or two bags and Handover them at Security)

Snacks & Water will be Provided.

Check Your Distance, Plan Your Travel and reach the venue on  
time.

Carry your lunch or Plan Your lunch after the Visit.

If You are not Attended INSPIRE H/D -2024 Not a Member of KIYE  
Join Now.

Thank You  
Naresh Indian  
Founder Kalam's Institute of Youth Excellence (KIYE)  
99414490

Location :  
<https://maps.app.goo.gl/fTMngq.../Bnie158>