

Name of the Activity:

Visit to Falcon Autotech Private Limited on 28 August 2025

Name of department/ Section/ cell conducting the activity	Department of Electrical Engineering
In coordination with (if any)	----
Date of conduct	28 August 2025
Activity Coordinator	Dr. Yogendra Arya Mr. Satpal (Head of Section) Mr. Rajiv (Technician)
Amount Spent	---
Funding/ grant from (University/ Industry/ UGC/ AICTE/ DST/ TEQIP/ Outside Society/ agency/others (mention)	Department fund
Target audience:	B.Tech Electrical (7 th Sem)
No. of beneficiaries	44
Outside guests/ Details of Experts	Mr. Sumit Malviya (HR of Falcon Autotech) Mr. Rohit (HR of Falcon Autotech) Abhimanyu (YMCA Alumni) Shanky Mangla (YMCA Alumni)
Brief Description of the event	Falcon Autotech is one of India's leading providers of intra-logistics and warehouse automation solutions, offering end-to-end capabilities in design, manufacturing, supply, implementation, and maintenance. Their products and technology suite include: <ul style="list-style-type: none"> • High-speed sortation systems (parcel, case, item-level) • Dimension & weight scanning systems (DWS) • Dynamic profilers and conveyor automation

- Pick/Put-to-Light modules
- Robotic ASRS (Automated Storage & Retrieval) systems
- Online weighing systems, inspection units, and warehouse control software (WCS)

“NEO” is Falcon Autotech’s proprietary **Automated Storage and Retrieval System (ASRS)** designed for advanced warehousing operations. Key features include:

- **3D Robotic movement:** NEO uses autonomous bots called **NEObots** that can navigate in all three dimensions (X, Y, and Z) to access storage bins—eliminating the need for lifts or conveyor belts
- **Modular Design:** The system includes components like **NEObins**, **NEOgrid**, **NEOstations**, and control software (**NEOit**). It’s scalable—adding or removing robots and bins is easy as per operational needs.

“Cubizon” refers to Falcon Autotech’s **dimensioning and weighing systems**, particularly suited for logistics and cargo.

- **Cubizon-R THRU:** Launched in September 2016, this product is engineered for heavy and bulky cargo. Its standout features include:
 - A **roller-bed base** to handle difficult-to-manoeuvre items.
 - A **High-precision laser measurement system** powered by Falcon’s proprietary **CUBIZONE** software engine.
 - Capability to measure both regular and irregular items ranging from **50 × 50 × 50 mm up to 1200 × 1000 × 1000 mm**, and weigh items from **100 g to 200 kg**

Falcon Autotech’s R&D team plays a pivotal role in developing automation technologies such as robotic ASRS systems, sortation, dimensioning, and conveyor automation. One highlighted innovation from the R&D team is an **ASRS robot capable of moving across all axes**

- The R&D department also houses an **in-house software development team** that handles system integrations—for instance, with ERP and WMS platforms—helping ensure seamless synergy between Falcon’s hardware solutions and enterprise IT infrastructure
- Their Greater Noida headquarters includes **state-of-the-art manufacturing facilities paired with integrated R&D labs**—dedicated to robotics, sortation, and automation technologies. Demonstration areas are also embedded within the facility, underscoring a full product lifecycle setup from ideation to prototyping and showcase
- R&D spans both software and hardware: software engineers, embedded developers, and architects support the design of automation logic, WCS/WMS integrations, and robotics control. Hardware and mechanical teams focus on prototyping and refining systems like ASRS, conveyors, and DWS units

Attach
two/three
good quality
photographs

