Loyola-ICAM College of Engineering and Technology (LICET)
Department of Electrical and Electronics Engineering
Electrical Engineers League (EEL)
Under
AICTE – Scheme for Promoting Interests, Creativity and Ethics among Students (SPICES)

Event Report

Category: **Industrial Visit**

Details of the Industry: **Hanon Systems Pvt Ltd., Maraimalai Nagar, Chengalpattu**

Date: 19-10-2022

Venue: Seminar Hall & Shopfloor, Hannon Systems

Details of Participants

- Total No. of Participants: 59
- II EEE (Batch: 2021 – 2025) : 55 (22 Girls & 35 Boys)
- III EEE (Batch: 2020 – 2024): NIL
- IV EEE (Batch: 2019 – 2023): NIL
- Ms. L. Ramya Hyacinth & Ms. A. R. Danila Shirly, Assistant Professors

Technological/ Academic/ Other Benefits generated by conducting the event with respect to:

(a) the institution	• Networking & building brand recognition - promote the institution and help people connect with our brand • Learn from experts in the field and establish the institution as a thought-leader and go-to educational resource in the process
(b) the faculty	• Strengthen faculty community and thereby build relationships with each other • Make face-to-face connections
(c) Students	• To stay on top of current trends, especially with technology causing rapid change across industries. • Academic engagement/ engagement in scholarly activities
(d) Industry/ Society	• Clarifying the image of the avenues of development in the near future • Contributing to make the literacy rate rise higher thereby helping build a more educated, empowered and aware society

Proceedings of the event

Category: Industrial Visit

Report on Visit to Hanon Systems Pvt Ltd., Maraimalai Nagar, Chengalpattu

Date: 19-10-2022 Time: 02:00 pm to 04:30 pm Venue: Shopfloor, Hanon Systems

Audience: II EEE (Batch: 2021 – 2025)

Hanon Systems is a Korean based company that supplies HVAC solutions and components to different international players in the automotive industry. Originally, this company had its start with Ford in 1986. The plant at Chennai is the largest and has a footprint at several other parts of the globe. Initially, an overview of the company was given by their line managers at the seminar hall in Hanon Systems. The presentation gave an insight on the customers of Hanon Systems, the services they provide, the products that they develop and their relevance towards implementing industry 4.0.

The nine technological pillars of industry 4.0 like Simulation, Additive Manufacturing, System Integration, Autonomous Robots, Cloud Computing, Big Data, Augmented/ Virtual Reality, Internet of Things and Cybersecurity were explained. The extent to which they have adopted industry 4.0 was also presented. Following the concept of Industry 4.0 which involves technological innovations in the fields of automation and information technology for manufacturing, they presented how far they have established authority in recent years.

Then, they presented the different products manufactured at their plant in Maraimalai Nagar. The products manufactured are radiator, thermostat, air blowing unit, air filter evaporator, condenser coil, compressor and other modules related to Heating, Ventilation and Air Conditioning (HVAC) Systems. Electrical systems used by these systems were explained in detail. The unique products developed and patented were presented by highlighting their significant features. Then, a brief outline on how they have adopted smart automation in their industry was given. The line managers mentioned that high quality items are produced at lower costs and at a faster rate after accommodating the objectives of Industry 4.0 by creating a union between the physical and digital resources. Their roadmap towards implementing Industry 5.0 was also presented. Their contributions and services for Electric Vehicle, Plug-in Hybrid Electric Vehicle (PHEV), Fuel Cell Electric Vehicle towards Battery cooling systems were presented.

The presentation was followed by a visit to the shop floor and other manufacturing units. The students were split into 5 teams and every team was accompanied by a line manager. The visit was a visual as well as an intellectual treat as we could understand the extent to which they have modernized their manufacturing plant. The autonomous robots “Hasi” on the shop floor and their functioning amused the students. During the visit, the manufacturing process of the heat exchanger and its functioning were explained in detail. Many of their processes like verifying the thickness of the fins, quality of spare parts and other manufacturing-related tasks are automated and could be monitored using mobile apps.

The industrial visit to Hanon Systems helped students understand how far digitalization is implemented in core industries. Interaction with the line managers helped students gain ideas on doing internships, selecting project problem statements and preparing for placement interviews. The visit facilitated to understand the professional practices in core industries, their work culture and standard operating procedures (SOPs). In core industries, all practices and processes are designed having safety at the forefront. On the whole, it was a good learning experience and helped in relating theory with the practices in industry.

Relevant Courses in the current semester

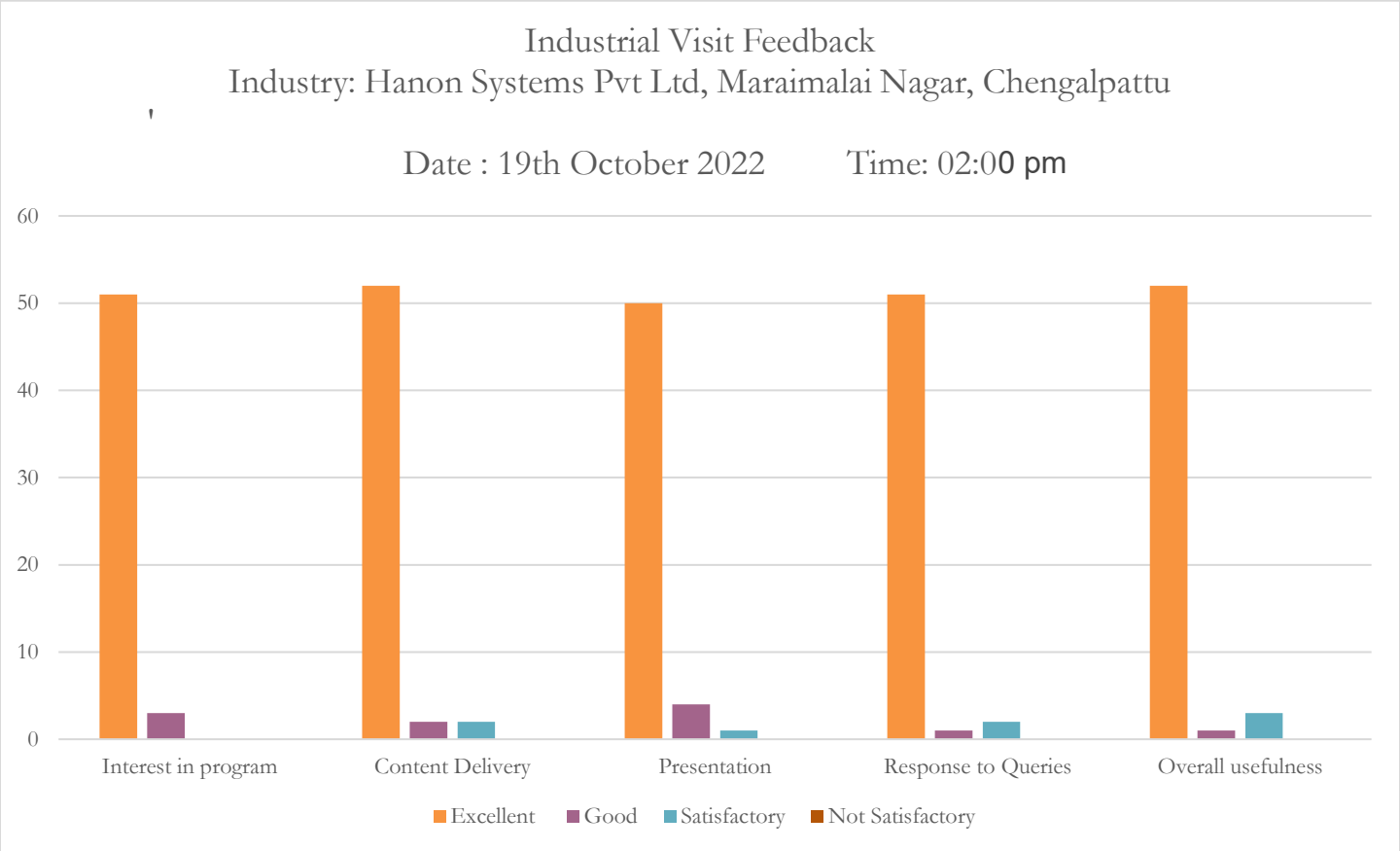
EE3303 Electrical Machines - I

- Applications

Relevant Program Outcomes

- PO5 – Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- PO6 – The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7 – Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and the need for sustainable development.
- PO8 – Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO12 – Life-long learning: Recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Feedback


Industrial Visit Feedback
Industry: Hanon Systems Pvt Ltd, Maraimalai Nagar, Chengalpattu
Date : 19th October 2022
Time: 02:00 pm
60
50
40
30
20
10
0
Interest in program
Content Delivery
Presentation
Response to Queries
Overall usefulness
Excellent
Good
Satisfactory
Not Satisfactory