

**A report
on
Industrial visit**



efftronics[®]
To provide insight for enhancing wealth

**Efftronics Systems Pvt Ltd
Mangalagiri**

Date of visit: 23.12.2022

by



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
KONERU LAKSHMAIAH EDUCATION FOUNDATION**

(Deemed to be University estd, u/s, 3 of the UGC Act, 956)

(NAAC Accredited "A++" Grated University)

Green Fields, Guntur District, AP, India – 522 502

INDUSTRIAL VISIT EFFTRONICS PVT LTD, MANGALGIRI

DATE : 23. 12. 2022
SECTION : III YEAR
EVENT : Industrial Visit/ Field Visit

Faculty Coordinators:

- 1) Dr. Lakshman Pappula, Associate Professor & Dy. HoD, ECE
- 2) Dr. S. Arunmetha, Associate Professor, ECE
- 3) Dr. A Aravindhana, Associate Professor, ECE
- 4) Ms. V Sahiti, Assistant Professor, ECE

EVENT DESCRIPTION:

An industrial visit has been organized by the department of Electronics and Communication Engineering for III-year II semester students on 23-DEC-2022 between 14:00 to 17:00hrs. The visit's main objective was to provide technical exposure to acquiring practical knowledge in Electronic System Design, the Internet of Things, and Smart systems. Total 59 students of III-year ECE of KLEF visited Efftronics Systems Pvt Ltd, Mangalagiri along with the 4 faculty Coordinators. The industry people gave a seminar about their company Efftronics and their present ongoing projects smart signaling, smart cities, LED, PCB manufacturing and discussed IoT. After that, we went into the industry, and they showed their projects and gave demonstrations about all their projects.

ABOUT THE COMPANY:

Efftronics Systems Pvt. Ltd. is a CMMI Dev Level 3 Ver 2.0 appraised Company. It is an end-to-end IoT solution provider Smart & Innovative Solutions for Smart Cities, Buildings, Signaling for railways & IoT Services by Automation and Digitization for Vibrant Lives. With a focus on continuous value identification, creation, and delivery, Efftronics indigenously developed 50+ innovation solutions in the last three decades. Solutions include the Largest IoT network connecting 6 million+ signalling assets of Indian Railways spreading across 9000+ locations improving system availability through predictive maintenance, increasing safety by eliminating accidents, optimizing train operations, etc. Smart drinking water distribution system for cities ensuring 135 LPCD for every household, reducing unaccounted-for water (UFW) by 20%, ensuring timely and equitable distribution of water supply. AI-based Adaptive traffic management system for cities reducing travel times.

SESSION ACTIVITIES DURING EFFTRONICS VISIT:

Students visited Efftronics and learned about

- Data Loggers
- Different types of sensors and Actuator equipment
- Different types of multi-color display systems
- Battery monitoring unit & Signalling Systems
- IoT Security Systems
- PCB Design, Manufacturing, and Assembling

Efftronics staff explained chip design, PCB Design, and IoT. They also briefly explained the production system, Data loggers, customer data analysis sector, Batteries, storage, and R & D division. They have shown how to develop LEDs and different types of LEDs and their applications. They were explaining a brief about company products and how many live projects are going on and how they are satisfied with the customer. All over India there are being installed and maintaining dataloggers around 9000+ railways stations. Further, they explained what different types of sensors and IoT have been used for appropriate applications

They are mainly Six sections introduced and the manufacturing process is explained they are Prototype Testing of Data Logger for Indian Railway

LED Testing & Designing Section: in this section, they are explained various types of LEDs and their wavelengths, and high bright LED. Etc.

PCB Designing and Manufacturing:

They clearly explained about Types of PCBs

1. Single side
2. Double-side PCB
3. multi-layer

Clearly explained through live demonstration in the fabrication room all stages of the process from the Designing, verification, developing, Screen Printing, Automatic and semiautomatic components mounting, Manual mounting, Testing, and verification. Followed by Pre curing and Post curing and testing techniques, assembling, and Quality assessment including the final stage of the Device.

Photo Gallery of Visit



During Seminar Session



PCB Screen Printing



PCB Components Automatic Pick and Place Machine



PCB Manual Verification and soldering



PCB Final Curring and Verification and Testing



IoT Signalling Application



IoT Data Logger



Final Consolidation and Feedback Session