NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

**Department of Electrical and Electronics Engineering**
**Industrial Visit Report**

**1. Title of the Visit**
Industrial Visit to Rakon India Pvt Ltd

**2. Date and Time**
**Date:** 03 March 2026
**Time:** 10:00 AM – 4:00 PM

**3. Venue**
Rakon India Pvt Ltd
KIADB Aerospace SEZ
KIADB Industrial Area
Devanahalli, Bengaluru, Karnataka

**4. Participants**
6th Semester B.E. EEE Section A

**5. Organising Body**
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
In association with
IEEE DEIS – Dielectrics and Electrical Insulation Society Student Branch Chapter

**6. Faculty Coordinators**
- Dr. Sujoy Das
- Prof. Ramya S

**7. Industrial Visit Coordinator**
Dr. B. Gunapriya
Professor, Department of EEE

**8. Convenor**
Dr. S. Sujitha
HoD – Electrical and Electronics Engineering

**9. Institutional Authorities**
- Dr. Revathi V – Dean R&D
- Dr. R. J. Anandhi – Dean Academics
- Dr. Manjunatha – Principal


SILVER HORIZONS
25
YEARS OF GLOBAL LEARNING
NEW HORIZON
COLLEGE OF ENGINEERING
DEIS
IEEE
Dielectrics and Electrical Insulation Society
New Horizon College of Engineering, DEI32 (SBC66131F)
Student Branch Chapter
Industrial Visit
Rakon India Pvt Ltd
KIADB Aerospace SEZ, KIADB Industrial Area,
Devanahalli, Bengaluru, Karnataka
03 March 2026
10:00 AM to 04:00 PM
6th Semester, Section - A, EEE Students
rakon
Faculty Coordinators
Dr. Sujoy Das
Prof. Ramya S
Industrial Visit Coordinator
Dr. B. Gunapriya
Convenor
Dr. S. Sujitha
HoD-EEE
Dr. Revathi V
Dean - R&D
Dr.R.J.Anandhi
Dean-Academics
Dr. Manjunatha
Principal
Organised by
Department of Electrical and Electronics Engineering


NEWHORIZON
pels


rakon

**10. Objective of the Industrial Visit**

The industrial visit was organised to provide students with exposure to advanced electronic manufacturing processes and high-precision frequency control devices used in aerospace, defense, and communication systems.

The key objectives were:

- To understand the industrial manufacturing process of crystal oscillators and frequency control components
- To learn about high-reliability electronic systems used in aerospace applications
- To observe quality testing, calibration, and packaging processes
- To bridge the gap between academic learning and industrial practices

**11. About the Industry**

Rakon India Pvt Ltd is a leading global manufacturer of frequency control and timing solutions, including:

- Crystal oscillators
- Frequency synthesizers
- Quartz crystals
- Timing modules

These components are widely used in:

- Aerospace and defense systems
- Satellite communication
- Telecommunications
- GPS systems
- Industrial electronics

The company operates with high precision manufacturing standards, and advanced cleanroom facilities.

**12. Details of the Visit**

The visit began with an introductory presentation by the industry experts explaining the history, products, and global presence of Rakon.

Students were taken through different sections of the facility including:

**1. Crystal Manufacturing Unit**

Students observed the fabrication of quartz crystals used for precise frequency generation.

**2. Assembly Section**

The process of assembling oscillators, resonators, and timing modules was demonstrated.

**3. Testing and Calibration**

Students learned about:

- Frequency stability testing
- Temperature testing
- Reliability testing

**4. Quality Assurance**

The engineers explained the importance of precision manufacturing, testing standards, and industrial quality control methods.

**13. Key Learning Outcomes**

Students gained knowledge about:

- Real-time applications of frequency control devices
- Industrial quality assurance procedures
- Manufacturing techniques used in microelectronics
- Industrial automation and precision instrumentation

- Importance of **reliability in aerospace electronics**

**14. Student Feedback**

Students provided positive feedback regarding the industrial visit.

Key responses included:

- The visit helped them understand **real-world electronic manufacturing**
- Exposure to **advanced aerospace electronics** increased their interest in research
- Students appreciated the **interactive session with industry experts**
- The visit helped them understand **how theoretical electronics concepts are applied in industry**

**15. Conclusion**

The industrial visit to **Rakon India Pvt Ltd** provided valuable exposure to **advanced electronic component manufacturing and precision engineering techniques**. Students gained insights into the **practical applications of electronics and electrical engineering in aerospace and communication systems**. The visit successfully enhanced students' understanding of industrial practices and technological innovations.

**Summary of Industrial Visit to Rakon India Pvt Ltd – Day 1**

Date: 03 March 2026

The Department of Electrical and Electronics Engineering, New Horizon College of Engineering, organized an industrial visit to Rakon India Pvt Ltd, located at KIADB Aerospace SEZ, Devanahalli, Bengaluru, on 03 March 2026 for the 6th Semester EEE students of Section A. The visit was conducted in association with the IEEE DEIS (Dielectrics and Electrical Insulation Society) Student Branch Chapter to provide students with exposure to advanced electronic manufacturing processes used in aerospace and communication industries. The students were accompanied by Dr. Sujoy Das and Prof. Ramya S, while the visit was coordinated by Dr. B. Gunapriya, Professor, Department of EEE. During the visit, industry experts introduced the students to the company's global presence and product portfolio, which includes crystal oscillators, quartz crystals, frequency synthesizers, and timing modules used in aerospace, satellite communication, GPS, and telecommunications systems. The students were given a guided tour of the facility where they observed quartz crystal fabrication, oscillator assembly processes, and advanced testing and calibration techniques used to ensure frequency stability and reliability. Engineers also explained the role of precision instrumentation, quality assurance procedures, and cleanroom manufacturing environments in producing high-reliability electronic components. The visit provided valuable insights into real-world industrial practices and helped students understand the practical applications of concepts related to electronics, instrumentation, and communication systems. Overall, the industrial visit was highly informative and helped bridge the gap between theoretical learning and industrial implementation.

---

05/03/2026.

IV - Co-ordinator

NHCE EEE DEPT Bangalore - 560103

5/3/2026

HOD/EEE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Bangalore - 560103, Karnataka, India