A Report on Industrial Visit to "Cimtrix Systems Pvt. Ltd" Organized by Department of Computer Science & Engineering on 21.05.2026

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Mode of Conduct: Offline
Participants: 39 Students from I CSE E
Report Received on 23.05.2026.

Introduction

A One-day Industrial Visit to **Cimtrix Systems Pvt. Ltd., Bengaluru** was organized for the students of the Department of Computer Science and Engineering, I B.Tech CSE – E Section. The main purpose of the visit was to provide practical exposure to modern technologies such as **3D Printing, 3D Scanning, Product Design, and Industrial Applications of Advanced Manufacturing Technologies**.
Cimtrix Systems Pvt. Ltd. is a technology-based company specializing in innovative engineering solutions, 3D Printing technologies, 3D Scanning solutions, Product Development, Reverse Engineering, and Digital Manufacturing applications. The visit provided students with an opportunity to understand real-time industrial practices and the latest technological advancements used in manufacturing and design industries.

Objectives of the Visit

- To provide practical exposure to 3D Printing and 3D Scanning technologies.
- To understand the industrial applications of additive manufacturing.
- To bridge the gap between academic learning and industrial practices.
- To improve awareness about emerging technologies and innovation.
- To enhance students' technical knowledge and professional skills.
- To provide insights into product design and prototyping techniques.

About Cimtrix Systems Pvt. Ltd.

Cimtrix Systems Pvt. Ltd., Bengaluru is a leading technology company working in the areas of 3D Printing, 3D Scanning, Reverse Engineering, CAD/CAM Solutions, and Product Development. The company provides advanced engineering solutions for industries such as manufacturing, automotive, aerospace, healthcare, and education.
The organization focuses on innovation and practical implementation of modern engineering technologies. Through technical demonstrations and industrial interactions, the company helps students understand real-time applications of additive manufacturing and digital design technologies.

Technical Session on 3D Printing and 3D Scanning

A technical session was conducted for the students by **Mr. Yathish, HR, Cimtrix Systems Pvt. Ltd.** He explained the importance of 3D Printing and 3D Scanning technologies in modern industries and their applications in product development and manufacturing processes.

The session focused on:

- Fundamentals of 3D Printing technology.
- Working principles of additive manufacturing.
- Types of 3D Printers and printing materials.
- Industrial applications of 3D Printing.
- Basics of 3D Scanning and Reverse Engineering.
- Product prototyping and digital manufacturing techniques.

Students actively participated in the session and clarified their doubts through interaction with the industry experts.

Figure 1Introduction to reverse engineering

Exposure to 3D Printing Technology

Students were introduced to different types of 3D printers and their industrial applications.
The experts demonstrated:

- Layer-by-layer printing process.
- Design conversion from digital models to physical objects.
- Usage of printing materials such as PLA and ABS.
- Rapid prototyping techniques used in industries.
- Applications of 3D Printing in automotive, medical, and manufacturing sectors.

Students gained practical knowledge about how 3D models are designed, processed, and converted into real products using additive manufacturing technology.

Figure 2: Introduction to different 3d printing materials

Demonstration on 3D Scanning and Reverse Engineering

The technical team provided a demonstration on 3D Scanning technologies and Reverse Engineering concepts.
Students observed:

- Working of 3D Scanners.
- Digital capturing of object dimensions and shapes.
- Conversion of physical objects into digital models.
- Applications of Reverse Engineering in industries.
- Accuracy and precision involved in industrial scanning processes.

The demonstration helped students understand the practical implementation of scanning technologies in product development and quality analysis.

Figure 3: Introduction to 3d scanning

Industry Interaction and Career Guidance

An interactive session was conducted for the students regarding current industry trends and career opportunities in emerging technologies.

The experts provided guidance on:

- Career opportunities in 3D Printing and Product Design.
- Skills required for industrial and software domains.
- Importance of innovation and practical learning.
- Internship and certification opportunities.
- Emerging trends in digital manufacturing technologies.

Students actively interacted with the experts and gained valuable industry insights.

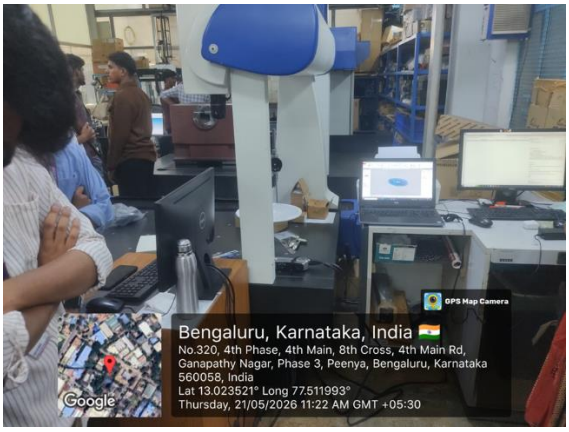

Figure 4: Introduction to software used for 3d printing

Conclusion

The Industrial Visit to **Cimtrix Systems Pvt. Ltd., Bengaluru** was highly informative and beneficial for the students of I B.Tech CSE – E Section. The visit provided practical exposure to 3D Printing, 3D Scanning, Reverse Engineering, and Product Development technologies.

Students gained valuable knowledge through technical sessions, demonstrations, and interaction with industry experts. The visit helped students understand the practical applications of concepts learned in academics and improved their awareness about modern industrial technologies and career opportunities.

Overall, the Industrial Visit successfully enhanced the technical knowledge, practical understanding, and professional awareness of the students.

Acknowledgement

We express our sincere gratitude to the Management, Principal, Vice Principal Administration, Head of the Department of Computer Science and Engineering for providing support and permission to organize this industrial visit.

We also thank **Mr. Yathish, HR, Cimtrix Systems Pvt. Ltd.**, and the entire technical team for their valuable guidance, support, and hospitality during the visit.