Kammavari Sangham ® 1952
K. S. INSTITUTE OF TECHNOLOGY
An Autonomous Institution under VTU, Approved by AICTE
Accredited by NBA (CSE & ECE), NAAC with A+ & QS I-GAUGE (GOLD)
#14, Raghuvanahalli, Kanakapura Road, Bengaluru – 560109
Tel: 080-28435722/24. Fax: 080 – 28435723, e-mail ID: principal.ksit@gmail.com website: www.ksit.ac.in

Industry - Institute Interaction Cell

A REPORT ON ONE DAY INDUSTRIAL VISIT TO CARL ZEISS INDIA BANGALORE PVT. LTD.

Place of Visit: Carl Zeiss India Bangalore Pvt. Ltd., Bommasandra Industrial Area, Bengaluru
Date of Visit: 29th September 2025

The Department Mechanical Engineering organized one day industrial visit for 7th Semester students along with faculty members to **"Carl Zeiss India Bangalore Pvt. Ltd., Bommasandra Industrial Area, Bengaluru"**.

On 29th September 2025, the Mechanical Engineering students of K. S. Institute of Technology had visited Carl Zeiss India Pvt. Ltd., Bommasandra plant, Bangalore. We assembled in college at 10.30 AM and then proceeded to visit plant and welcomed by Mr. Kiran and Mr. Thomas.

1. Introduction & Objectives

The one-day industrial visit to Carl Zeiss India Pvt. Ltd., Bommasandra, Bengaluru, was organized to expose 7th semester mechanical engineering students to advanced manufacturing practices, precision optics production, industrial metrology, and quality-control procedures used in a world-class instrumentation company. Specific objectives were:

- Observe real-world applications of machining, grinding, and assembly for precision components.
- Understand metrology and quality assurance processes (coordinate measuring, optical inspection, calibration).
- Learn about automation, fixtures, and process control used to meet tight geometric tolerances.
- Relate classroom theory (manufacturing processes, machine design, tolerances, quality control) to industrial practice.
- Encourage professional behaviour and networking with industry engineers.

2. Company Overview

Carl Zeiss India (Bangalore) Pvt. Ltd. is the Indian subsidiary of the German technology leader ZEISS Group, globally renowned for its expertise in optics, precision metrology, medical technology, and scientific instrumentation. Located in Bommasandra Industrial Area, Bengaluru, the Bangalore facility serves as a key hub for manufacturing, R&D, and technical services catering to sectors such as automotive, aerospace, healthcare, microscopy, and vision care. The company produces high-precision coordinate measuring machines, optical systems, and diagnostic equipment, while also supporting software development and global IT services for ZEISS operations worldwide. With a workforce of over 1,000 employees, ZEISS India is recognized as a Great Place to Work and continues to expand rapidly, backed by major investments to enhance its manufacturing capacity and innovation capabilities. Combining German engineering excellence with Indian technological talent, the company plays a vital role in advancing industrial quality solutions, healthcare technology, and scientific research across the region.

3. Participant details:

No. of participants in total: 19

Students: 17

Faculty – Dr. Harish U, Prof. Manjunatha B R.

4. Outcomes of the visit:

- Strengthened understanding of precision engineering concepts and their applications in the optical and metrology industry.
- Gained deeper appreciation for quality assurance practices and their critical role in global-level manufacturing.
- Acquired enhanced knowledge of modern machining, automation, and metrology tools, bridging theory with real-world practice.
- Sharpened professional and communication skills through interactions with industry experts and observation of industrial discipline.
- Inspired students to pursue careers, projects, and research opportunities in advanced manufacturing, optics, and metrology domains.

Photos:


SCHOOL BUS
K. S. GROUP OF INSTITUTIONS
K. S. INSTITUTE OF TECHNOLOGY
DEPARTMENT
OF
MECHANICAL ENGINEERING
INDUSTRIAL VISIT
GPS Map Camera
Bengaluru,Karnataka,India --
80 Feet Road, Raghuvanahalli, Bengaluru,
Karnataka 560062, India
Lat 12.879868, Long 77.544766
09/29/2025 09:37 AM GMT+05:30
Note : Captured by GPS Map Camera


GPS Map Camera
Bengaluru,Karnataka,India
Hosur Road, Bommasandra, Bengaluru,
Karnataka 560099, India
Lat 12.819609, Long 77.683608
09/29/2025 11:15 AM GMT+05:30
Note : Captured by GPS Map Camera

We would like to thank our Management, Principal and HOD of Mechanical engineering Department for arranging this industrial visit which was very informative and useful for the students. Also, we thank transport department for arranging bus facility for the industrial visit.

Mapping of Industrial visit with PO'S and PSO'S

Program	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO 1	PSO 2
Industrial Visit	2	2	1	1	2	1	2	1	1	1	1	3	1

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

PROGRAM SPECIFIC OUTCOMES (PSOs):

PSO1: Ability to apply concept of mechanical engineering to design a system, a component or a process/system to address real-world challenges.

PSO2: Ability to develop effective communication, team work, entrepreneurial and computational skills.

Justification:

PO1, PO2, PO5- Students apply engineering knowledge, analyse processes, and observe modern tools in use.

PO1, PO4, PO5- Gain practical insights and learn to investigate equipment functionality and usage.

PO6, PO7, PO8- Awareness of health, safety, environmental impact, and ethics in industrial environment.

PO9, PO10- Develop communication skills and teamwork through discussions and interactions.

PO11- Learn basics of project management, scheduling, and resource allocation in industry settings.

PO2, PO3- Identify challenges faced in industry and think about design improvements or solutions.

PO7- Observe implementation of sustainable practices and environmental considerations.

PO11- Realizing the need to update knowledge and skills through continuous learning from industry trends.

6/10/2025

Industrial visit coordinator

HOD ME
Head of the Department
Dept. of Mechanical Engg.
K.S. Institute of Technology
Bengaluru - 560 109.

Principal