

Department of Computer Applications

Industrial Visit to TANSAM, Chennai

An industrial visit was organized to the **Tamil Nadu Smart and Advanced Manufacturing Centre (TANSAM)**, located at TIDEL Park, Chennai, for II Semester students of B.Sc. Computer Science and BCA (CTIS, CS & DS) on **09/04/2026**. The visit aimed to provide students with practical exposure to modern manufacturing technologies and Industry 4.0 concepts.

TANSAM is a state-of-the-art **Centre of Excellence (CoE)** established by the Government of Tamil Nadu through TIDCO to promote advanced manufacturing and digital transformation across industries. It was inaugurated in 2022 and focuses on developing future-ready skills and fostering innovation.

Objectives:

- To understand **Industry 4.0 technologies** and smart manufacturing
- To gain exposure to **real-time industrial applications**
- To learn about **AI, IoT, and automation in manufacturing**
- To bridge the gap between **theoretical knowledge and practical implementation**
- To explore career opportunities in advanced manufacturing

During the visit the students explored various Centres of Excellence at TANSAM, each demonstrating advanced manufacturing practices.

The Product Innovation Centre focuses on product design and development using advanced simulation and modeling tools to enhance design efficiency. The Predictive Engineering Centre utilizes techniques such as Finite Element Analysis (FEA) and Computational Fluid Dynamics (CFD) to improve product performance and reliability.

The Smart Factory Research Centre showcases automated production systems, incorporating robotics and digital twin simulations to replicate real-world manufacturing environments. The Asset Performance Management Unit uses IoT sensors for real-time monitoring and predictive maintenance, reducing downtime.

The Innovative Manufacturing Centre introduces advanced techniques like 3D printing and supports reverse engineering processes. The Product Lifecycle Management (PLM) Section manages product data from design to disposal, improving collaboration and operational efficiency. Overall, these labs provided valuable hands-on exposure to Industry 4.0 technologies.

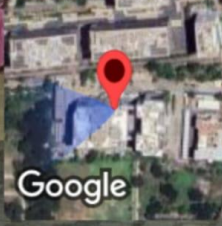
Benefits of TANSAM


- Provides **industry-oriented training and certification**
- Supports **startups and MSMEs with innovation**
- Encourages **research and development**
- Facilitates **industry–academic collaboration**
- Enhances employability of engineering students

The Industrial Visit was coordinated by Dr. Shahar Banu (Associate Professor) and the Assistant Professors Mrs. Amsavalli S, Dr. S. Kalaivani, Dr. N. Parvin, Dr. K. Hazeena, and Dr. I. Parvin Begum from the Department of Computer Applications.



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Chennai, Tamil Nadu 600113, India
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Chennai, Tamil Nadu 600113, India
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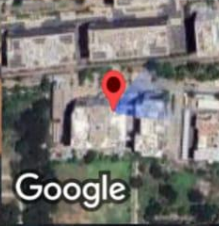
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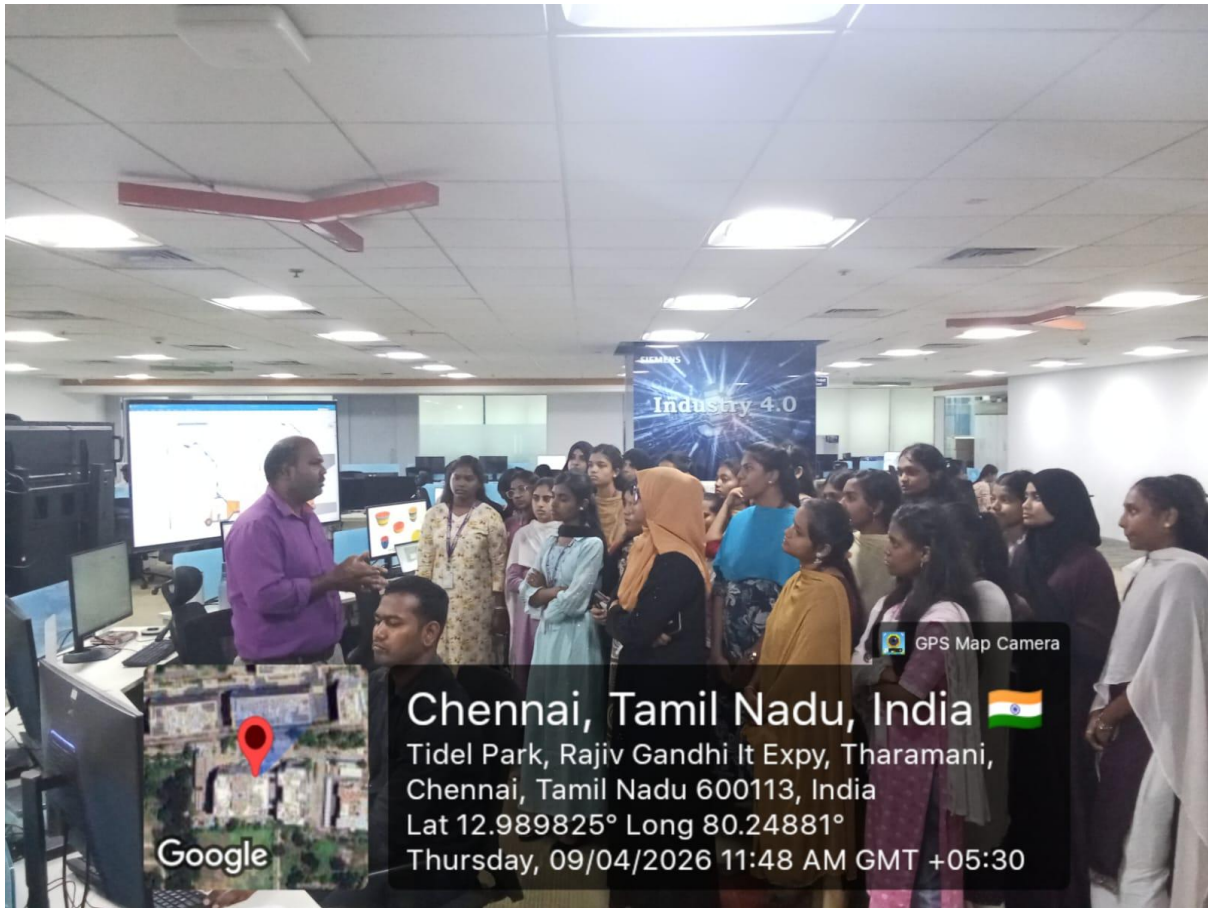
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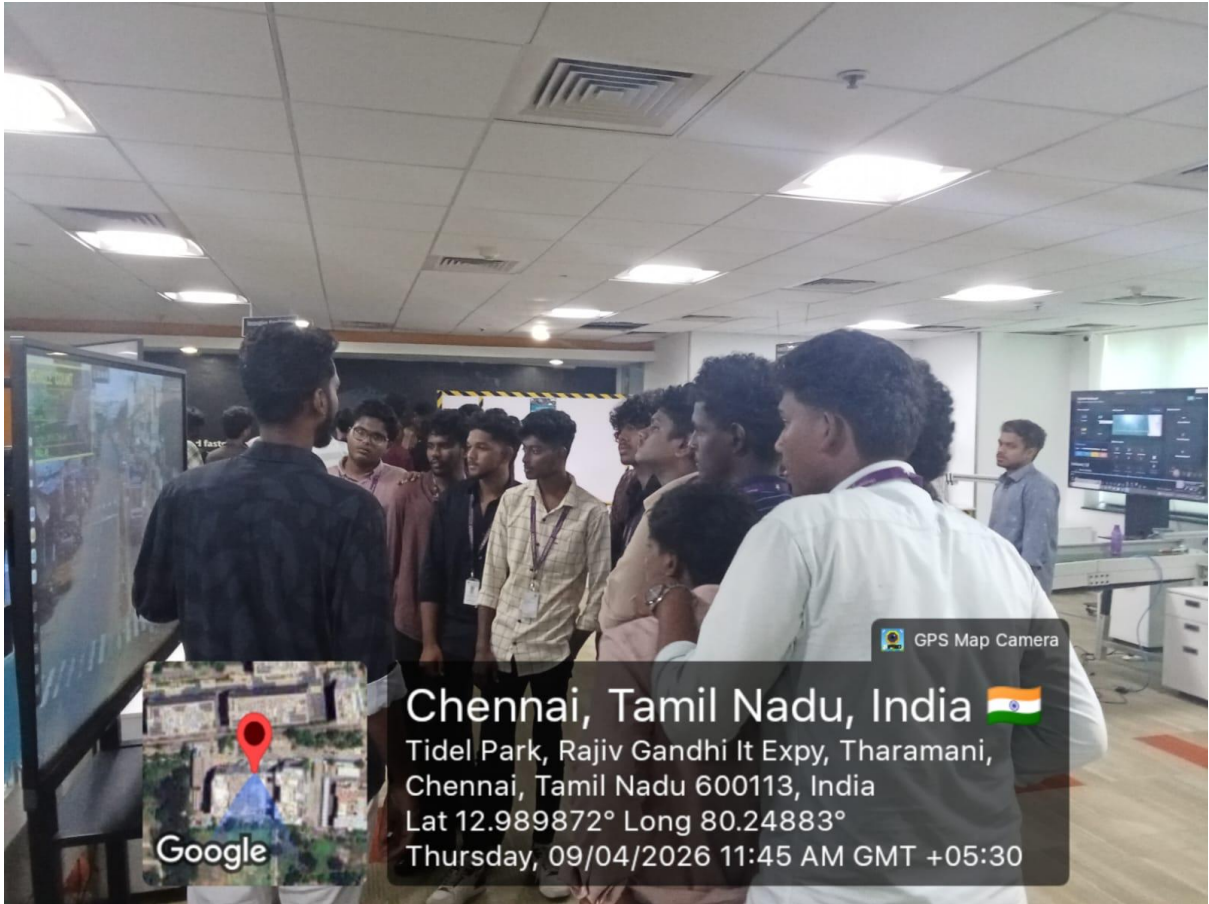
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