



**DMI COLLEGE OF ENGINEERING**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**INDUSTRIAL VISIT CUM WORKSHOP**  
**AT**  
**TAMILNADU SMART AND ADVANCED MANUFACTURING**  
**CENTRE(TANSAM),**  
**@**  
**TIDEL PARK**

**DATE : 04/08/2023**

**TIMING : 11.00 AM – 4:30PM**



## **TANSAM Center of Excellence**

TIDEL Park,  
Rajiv Gandhi IT Expy,  
Tharamani,  
Chennai, Tamil Nadu 600113

### **Report on Industrial Visit to TANSAM Center of Excellence**

#### **1.Introduction**

The Industrial visit was organized by Department of Information Technology for the students of Final year IT. The visit is aimed to provide students with an opportunity to gain practical insights into the Digital Technologies of TANSAM., Tidel Park, Chennai

The visit took place on 04-08-2023.

#### **2.Objectives**

The main objectives of the industrial visit were as follows

- a)To familiarize students with the manufacturing processes and digital technologies used by TANSAM
- b)To know how products are being used, and feed data back from product utilization into product ideation and development in order to anticipate trends.
- c)To observe the safety protocols followed by the company to ensure a safe working environment.
- d)To learn about the company's organizational structure and the roles of various departments.
- e)To explore potential collaboration opportunities between DMI College of Engineering and TANSAM

#### **3.Overview of TANSAM**

“TANSAM Centre of Excellence” is utilized by industries for spurring innovation at the grass root level. This will be a future proof for the industries and career progression training needs in the emerging technologies and best practices in par with international standards.

Additionally, the CoE will be an ideal R&D facility for industries, to adapt to future technologies with cost saving advantages unique to them. The program has three key components namely Innovation Platform, that enable industry to develop personalized smart products with validated performance, then the Infrastructure Platform that enhance industry capability to create product, process and performance twin and the Engineering Services that provide established industry with services to liquidate their day to day issues.

The TANSAM Centre of Excellence have seven specializations and establish in about 16700 square feet area at TIDEL Park Chennai, which includes: Product Innovation, Center for Predictive Engineering Analytics, Smart Factory Research, Center for Asset Performance Management (IoT) research, Research Center for Product Lifecycle.

#### **4.Highlights of the Visit**

##### **a)Welcome and Presentation**

After arrival, the students were warmly welcomed by the representatives of TANSAM **Mr.Durai Murugan. M Business Developer (Academic Alliances) TANSAM Center of Excellence.**

They started the visit with a detailed presentation about the company's history, mission, and vision. The presentation also covered the key milestones, achievements, and the company's market position.

##### **b)Factory Tour**

The students were then taken on a comprehensive tour of the manufacturing facility. They observed various stages of the production process, from raw material intake to the final product assembly. The team explained the cutting-edge technologies and machinery used for production.

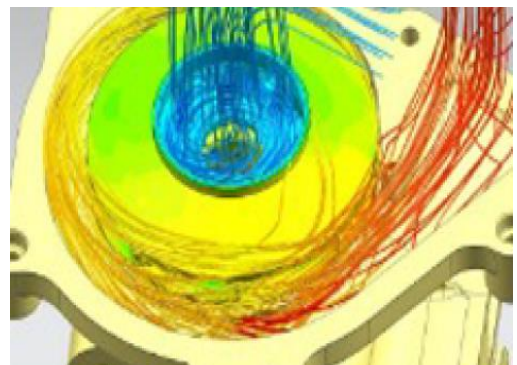


##### **Product Innovation Center**

Computer Aided Design  
Computer Aided Manufacturing  
Capital Electrical Circuit Design  
Bentley Context Capture

##### **Center for Predictive Engineering Analytics**

- CAE Simulation & Testing
- Computational Fluid Dynamics
- Tyre Manufacturing& Analytics
- Madymo - safety systems in the automotive
- Simcenter SCADAS XS - Vibration Testing





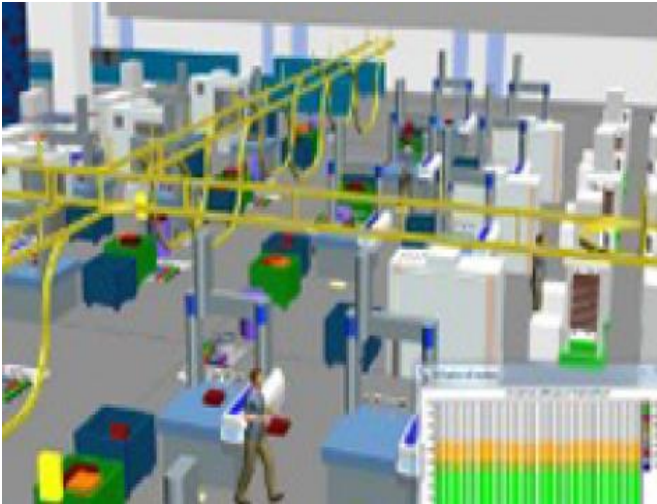
## Smart Factory Research Center

Tecnomatix Manufacturing - 3D,2D and Detailing

Tecnomatix Plant Simulation

Fibersim for NX

Center APS- Advanced Planning and Scheduling



## Research Center for Product Life Cycle Management

- Rapid Author for Teamcenter FL
- Teamcenter Product Cost management
- Teamcenter Deployment
- APQP (Advanced Product Quality Planning)

## Innovative Manufacturing Center

- Reverse Engineering
- Addictive Manufacturing
- Robotics & Simulation



## AR & VR Research Lab



Augmented Reality (AR)  
Virtual Reality (VR)

### c) Quality Control



**d) Safety Measures:** Safety being a top priority for TANSAM, participants were given a detailed overview of the safety protocols and measures in place to ensure a safe working environment for the employees.

**e) Interaction with Employees:** The students had the opportunity to interact with employees from different departments, including production, research and development, marketing, and human resources. These interactions provided valuable insights into the company's work culture and the diverse roles of its workforce.

### 5. Learnings and Observations:

During the industrial visit, students gained several valuable learnings and observations:

- The importance of technology and automation in enhancing productivity and product quality.
- The relevance of continuous research and development to stay competitive in the market.
- The significance of teamwork and coordination across different departments for efficient operations.
- The potential areas for collaboration and knowledge exchange between DMICE and TANSAM. The resource person clearly explained about the AR and VR technologies using

UNITY software and also explained about Android Application development using MENDIX software.

## **6. Outcomes**

**Enhanced knowledge and understanding:** Students gain knowledge about the industrial processes, technologies, and operations related to TANSAM visit.

**Exposure to real-world practices:** Seeing how things work in a real industrial setting can provide valuable insights and practical learning experiences beyond what is taught in classrooms.

**Networking opportunities:** Industrial visits allow students to interact with professionals, employees, and managers, providing valuable networking opportunities.

**Career insights:** The visit may help students to explore potential career paths and understand job roles within the industry.

**Inspiration and motivation:** Seeing successful industries and their operations can inspire students and motivate them to achieve similar levels of success in their respective fields.

**Understanding of safety and regulations:** Industrial visits often emphasize safety protocols and regulatory compliance, ensuring that participants understand the importance of these aspects in an industrial setting.

**Improved academic performance:** For students, industrial visits can complement theoretical knowledge with practical applications in AR & VR, potentially improving academic performance in related subjects.

## **7.Conclusion:**

The industrial visit to TANSAM was an enriching and educational experience for the students. It provided them with a practical understanding of the processes, technologies, and organizational dynamics of a successful company. The visit also opened up opportunities for future collaboration and partnerships between DMICE and TANSAM

The students extend their heartfelt gratitude to the management for giving opportunity to the visit and the team of TANSAM for their warm hospitality and informative sessions during the visit.

## **Workshop Schedule**

<b>TIMINGS</b>	<b>TOPICS</b>	<b>RESOURCE PERSON</b>
<b>11.00 AM TO 11.30 AM</b>	<b>INTRODUCTION TO TANSAM &amp;INDUSTRY 4.0</b>	<b>Mr.DURAI MURUGAN</b>
<b>11.30 AM TO 1.00 PM</b>	<b>OVERVIEW</b> of	<b>Mr.KARTHK</b>

	AR/VR/MR/TECHNOLOGIES	<b>MS.JANANI MS/SWETHA</b>
<b>1.00 PM TO 2.00 PM</b>	LUNCH	
<b>2.00 PM TO 3.00 PM</b>	MENDIX ,AL/ML	<b>Ms.HANNAH</b>
<b>03.00 PM TO 4.00 PM</b>	PROJECT DEMO	<b>Mr.ARAVIND KUMAR &amp; Ms.HANNAH</b>

### Sample Certificate

