



## **Koneru Lakshmaiah Education Foundation**

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

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**Campus:** Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

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### **DEPARTMENT OF MECHANICAL ENGINEERING**

#### **Industrial Visit Report – CIPET, Surampalli (V), Gannavaram (M)**

III/IV B.Tech Regular and Lateral Entry Students of Mechanical Engineering Department were taken to CIPET, Surampalli for industrial visit on 19-10-2024 to acquire knowledge by seeing practically the things happening in CIPET. As a part of visit 50 students and 2 faculty (Dr. S.S. Rao and Dr. P. Raj Kumar) have visited.

This report summarizes an industry visit to CIPET (Central Institute of Petrochemicals Engineering & Technology) on October 19, 2024, aimed at gaining insights into the plastics and petrochemicals sector, understanding current trends, and exploring career opportunities. Participants toured the facilities, observed cutting-edge equipment, and learned about technological innovations in the field. They engaged with industry experts who shared their experiences and discussed the challenges and opportunities within the industry. The visit also offered networking opportunities with professionals and potential employers, fostering connections for future collaboration and career growth. Overall, it was a valuable learning experience that deepened participants understanding of the industry.

The Central Institute of Petrochemicals Engineering & Technology (CIPET), established in 1968, is a leading Indian institution focused on developing human resources and advancing technology in the plastics and petrochemicals industries. Operating under the Department of Chemicals and Petrochemicals, it offers a range of educational programs, from diplomas to doctoral degrees, as well as short-term skill development courses. CIPET is a key player in research and development, providing services like material testing and technical consultancy. With a focus on sustainability and innovation, it supports eco-friendly technologies and collaborates with industries globally. Its nationwide centres and commitment to fostering SMEs reflect its mission to drive industrial growth and sustainable development in the sector.

With a strong focus on sustainability, CIPET emphasizes eco-friendly materials and processes, supporting the transition toward greener technologies in the petrochemical and



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plastics sectors. The industrial visit to the CIPET Manufacturing Point, Surampalli, was an opportunity for students to witness the functioning of a premier academic institution under the Ministry of Chemicals & Fertilizers, Government of India. CIPET is renowned for its expertise in plastic and polymer processing technologies and provides hands-on exposure to manufacturing techniques. This visit provided us with a firsthand look at the modern equipment and technologies used in the manufacturing process, as well as how different machines work in harmony to produce various components. The tour helped bridge the gap between theoretical knowledge and real-world industrial applications.







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CNC machines automate the process of cutting, drilling, or shaping materials based on pre-programmed designs. The machine follows precise instructions from a computer, enabling high-precision manufacturing. The CNC machine was used in die preparation for various components, showcasing how technology has revolutionized manufacturing by improving speed, accuracy, and repeatability.







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The industrial visit to CIPET provided valuable insight into the manufacturing processes and the operation of advanced machinery. Injection molding, CNC machining, and EDM processes were critical to understanding how various plastic and metal components are produced efficiently and accurately. The integration of automation, such as CNC technology, significantly enhances precision and productivity in modern manufacturing. The hands-on exposure helped us appreciate the intricacies of manufacturing, die preparation.



Prepared by  
**Dr. B. Kiran Kumar**  
Incharge for Industry visits

Approved by  
**Dr. T. Vijaya Kumar**  
Head of the Department