Department of Mechanical Engineering
Academic Year 2025-26, Even Semester
Industrial Visit Report – Coca-Cola Plant, Atmakur

The II/IV B.Tech students of the Department of Mechanical Engineering were taken on an industrial visit to the Coca-Cola plant at Atmakur on 27-02-2026. A total of 36 students along with 2 faculty members (Dr. G. Diwakar and Dr. K. Sai Sarath) participated in the visit. The main objective of the visit was to provide practical exposure to students by observing real-time industrial operations and to bridge the gap between theoretical knowledge and practical applications in manufacturing industries.

Upon arrival, the students were given a brief introduction about the organization, its history, production capacity, and operational standards. The technical team explained the overall workflow of the plant, emphasizing automation, quality control, and safety measures followed in

beverage production. Students were instructed about safety precautions and hygiene protocols before entering the production area.

The visit began with the water treatment section, where students observed the purification processes such as filtration, reverse osmosis, and UV treatment to ensure that water meets beverage-grade standards. They learned about quality testing parameters like pH value and mineral content. In the syrup preparation section, engineers explained how sugar syrup is prepared and mixed with concentrates in precise proportions using automated mixing tanks under controlled temperature and pressure conditions.

Students then observed the carbonation process, where carbon dioxide is injected into the beverage under controlled pressure. The bottling section was particularly informative, as students witnessed PET preforms being heated and blow-molded into bottles, followed by rinsing, filling,

and capping operations using high-speed automatic machines. The labeling, batch coding, and packaging processes were fully automated, supported by conveyor systems for smooth material handling.

The plant visit provided valuable insights into mechanical engineering applications such as PLC-based automation systems, pneumatic and hydraulic mechanisms, motors, pumps, compressors, refrigeration systems, and preventive maintenance practices. Students also observed the importance of plant layout, energy management, and quality assurance in large-scale production industries.

Overall, the industrial visit was highly informative and beneficial. It enhanced the students understanding of real-time manufacturing processes and industrial operations. The visit successfully provided practical exposure and motivated students to connect their academic learning with industrial applications.

Prepared by	**Authorized by**
Dr. K. Sai Sarath	HOD-ME