

An Autonomous Institute Approved by AICTE, New Delhi Affiliated to VTU, Belagavi Recognized by UGC under 2(f) & 12(B) Accredited by NBA & NAAC INDUSTRIAL VISIT ORGANIZED BY THE DEPARTMENT OF CIVIL ENGINEERING

## INDUSTRIAL VISIT TO HINDUSTAN COCO COLA BEVERAGES Pvt. Ltd. EFFLUENT TREATMENT PLANT - BIDADI

The Department of Civil Engineering, MVJCE organized an Industrial visit to Hindustan Coco Cola Beverages Pvt. Ltd. Effluent Treatment Plant - Bidadi on Wednesday (07/08/2024). The UG 6<sup>th</sup>, 4<sup>th</sup> and PG 2<sup>nd</sup> Semester students had participated in the visit. Students were accompanied by the faculty members Prof. Sagar C P, Prof. Shashi Kumar P M and Prof. Asra Fathima. The main objective of the visit was to give a field experience to students on different concepts of civil engineering aspects.

During the visit to Hindustan Coca-Cola Beverages Pvt. Ltd.'s Effluent Treatment Plant in Bidadi, Mr. Mahesh, the Executive Engineer, provided an insightful explanation of the various operations and processes involved in the treatment of wastewater. He began by outlining the critical need for wastewater treatment, emphasizing its role in protecting the environment and ensuring public health. Mr. Mahesh highlighted how untreated wastewater can lead to severe environmental degradation, polluting water bodies, and harming aquatic life. He stressed the responsibility of treatment plants to process this wastewater effectively, making it safe for reuse or release back into the environment.

Mr. Mahesh then walked the students through the key stages of the treatment process, starting with primary treatment. He explained that this initial phase involves the removal of solid particles and large debris from the wastewater. This is typically done through physical processes like screening and sedimentation, where heavier solids settle at the bottom, and lighter materials are skimmed off the surface.

The next stage, secondary treatment, was described as a biological process where organic matter in the wastewater is broken down by microorganisms. Mr. Mahesh elaborated on how this stage is crucial for reducing the biochemical oxygen demand (BOD) of the water, which measures the amount of oxygen that bacteria will consume while decomposing organic matter. Lowering BOD is essential to prevent oxygen depletion in water bodies, which can harm aquatic ecosystems.

Finally, Mr. Mahesh explained the tertiary treatment phase, which involves advanced filtration and chemical treatment to remove any remaining impurities, such as dissolved inorganic substances, pathogens, and nutrients. This stage ensures that the treated water meets stringent quality standards set by regulatory bodies before it can be safely discharged or reused for purposes such as irrigation or industrial processes.

Throughout the visit, students had the opportunity to observe these processes in real-time, which significantly enhanced their understanding of the theoretical concepts they had studied in class. They witnessed the complexity of managing a treatment plant, including the precise control of chemical dosages, the monitoring of various treatment stages, and the adherence to government regulations.

Mr. Mahesh also emphasized the importance of compliance with government standards, discussing how the plant continuously monitors its operations to ensure that all processes meet the required legal benchmarks. This includes regular testing of the treated water to ensure it is safe for its intended use and that it does not pose any risk to the environment or public health.

The hands-on experience provided during the visit allowed students to see how civil engineering principles are applied in real-world scenarios. They were able to correlate the processes they observed with the theoretical knowledge they had gained in their coursework, deepening their understanding of the subject. The visit also sparked a greater interest in the practical aspects of civil engineering, as students realized the impact of their future roles in environmental protection and public safety.

Overall, the visit to the Effluent Treatment Plant was both educational and enjoyable. It offered the students a valuable opportunity to bridge the gap between theory and practice, leaving them with a deeper appreciation for the complexities and responsibilities involved in civil engineering.



Industrial Visit: Civil Engineering Students have entered to Coca Cola beverages; Students visited the entrance for the safety guidelines.



Industrial Visit: Civil Engineering Students have entered to Coca Cola Sewage treatment plant; Students where interacting to Mr. Mahesh on the different biological treatment process.



Industrial Visit: Group Photo at Hindustan Coco Cola Beverages Pvt. Ltd. Effluent Treatment Plant – Bidadi

## **EVENT OUTCOME:**

The Field visit gave students an opportunity to explore their knowledge and co-relate the theoretical concepts to the field work. This satisfies partly with PO: 4-Conduct Investigation on Complex Problems, PO: 5-Modern Tool Usage and PO: 12- Life Long Learning in the field of Civil Engineering.