

A Report on Site Visit at “Bharwara Sewage Treatment Plant” on 26th December 2022

Department of Civil Engineering strongly believes that site visit is an aid to educational component in teaching and learning method. It allows the students to develop a valuable insight of how civil engineering theory is put into practice. In this context, the Departmental Quality Assurance Cell, Department of Civil Engineering, Integral University organized a site visit on **26th December 2022** for the students of B.Tech. Final year and M.Tech Environmental Engineering Final Year at Bharwara Treatment Plant located in the outer parts of Gomti Nagar, Lucknow.



Aerial View of 345 MLD STP (UASB) at Bharwara

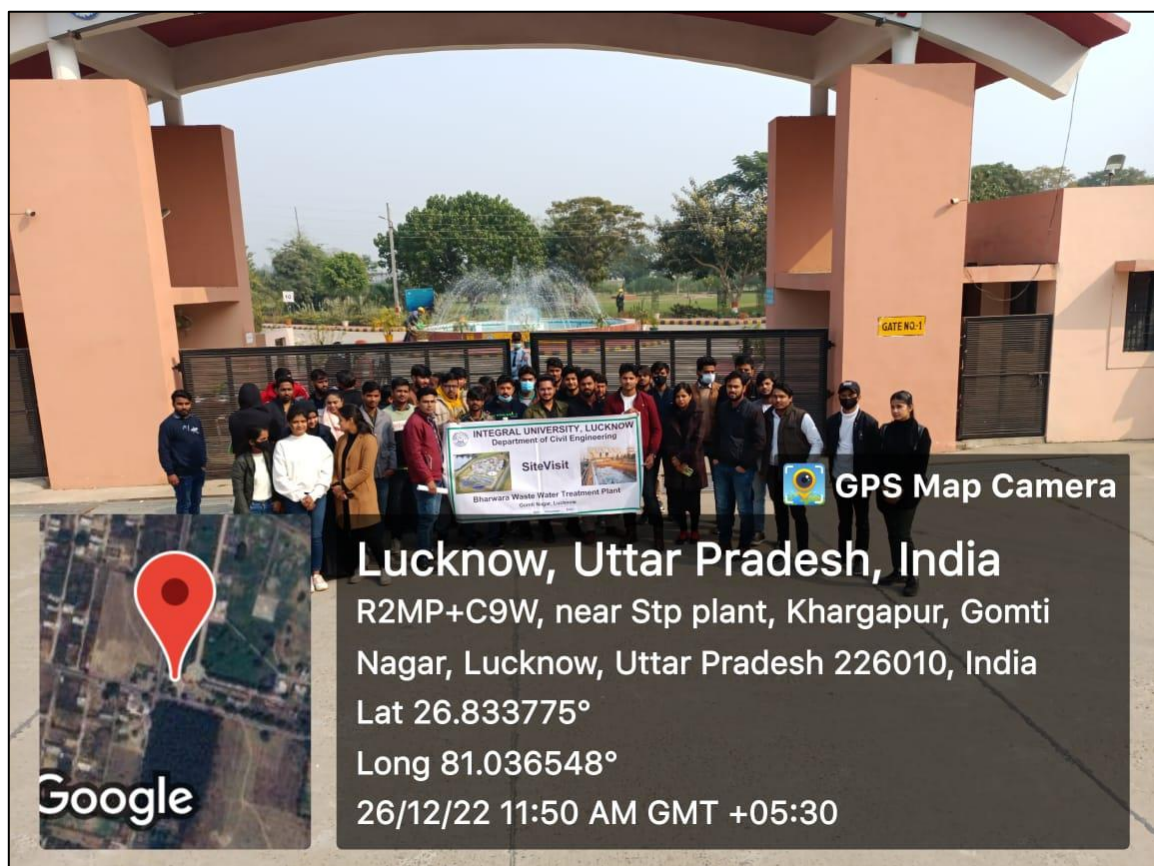
Bharwara sewage treatment plant is Asia's largest sewage treatment plant built in 2010 and Operation commenced in 2011 by U.P. Jal Nigam. The project cost is ₹360 crore. It has a design capacity of 345 Million Litres per Day and covers an area of about 120 hectares. The plant is based on the Up-flow Anaerobic Sludge blanket Reactor [UASBR] Technology. It is now operated and maintained by Suez-a French-based utility company that specializes largely in wastewater treatment and waste management systems.

The students were accompanied by faculty members Dr. Neha Mumtaz, Mr. Mohd Sadat and Mr. Mohd Riyaz on 26th December 2022. At the plant, students were welcomed and briefed about the plant by Mr. Saurabh Yadav, J.E U.P. Jal Nigam. He along with assistants took the students on a detailed tour of the plant.

The plant consisted of the following components:

1. Primary Treatment unit (Screening, Grit Chamber, Flow Measuring Device and Sedimentation Tank)
2. UASB reactors for secondary treatment
3. Methane collection tank
4. Pre-aeration unit
5. Aeration ponds
6. Chlorination unit.

GLIMPSE OF THE SITE VISIT





Safety induction at site



Inlet



Screens



UASB reactor



Aeration

Mr. Riyasat Ansari, Technical Incharge, SUEZ India, explained all the details and benefits of project. He elaborated that Bharwara Sewage Treatment treatment plant receives sewage from total Trans Gomti side including Indira Nagar, Gomti Nagar and Sitapur road areas conveying sewage which is sanctioned under Gomti Action Plan Phase-II. It has the Capacity to treat 345MLD waste water through length of trunk and branch sewer lines of around 860 km.

Total 37 students visited the treatment plant. The visit was efficacious for the students in gaining the practical knowledge regarding the functioning & maintenance of sewage treatment plant.