Report on Site Visit to Ready-Mix Concrete (RMC) Plant of M/s Ultratech Cement, Deva Road, Lucknow on 21st November 2025

The Department of Civil Engineering, Integral University, Lucknow organized an industrial site visit for the 3rd and 4th year students of the B.Tech Civil Engineering program on 21st November 2025 to UltraTech Cement's Ready-Mix Concrete (RMC) Plant located at Deva Road, Lucknow. The main objective of this visit was to provide practical exposure and real-time learning about the modern concrete manufacturing process used in large-scale construction. Such visits are an important part of engineering education as they help bridge the gap between theoretical knowledge gained in classrooms and practical field applications.

During the visit, **Mr. Praveen**, Site In-charge of UltraTech RMC Plant, welcomed the group and explained in detail the role of each ingredient used in concrete like coarse aggregates, fine aggregates, cement, water, and admixtures. He demonstrated how aggregates are stored separately based on size and moisture content, and how the cement is stored in sealed silos to prevent contamination. He further elaborated on the significance of maintaining the correct water–cement ratio to achieve the desired workability and compressive strength of concrete.

Students witnessed the complete RMC manufacturing process starting from automated material feeding, accurate batching by computerized systems, and efficient mixing through high-capacity mixers. The batching plant calculates the proportion of each component based on specific mix design and ensures uniformity in every batch. The fresh concrete is then transferred into transit mixers where it continues to rotate to avoid early setting. Mr. Praveen highlighted that this controlled process leads to high-quality concrete with increased strength and durability, suitable for modern infrastructure. One of the significant components of the visit was the exposure to the in-house Quality Control Laboratory at the plant. Students observed various material testing procedures such as sieve analysis of aggregates, slump test to check workability of fresh concrete, and casting of concrete cubes for compressive strength evaluation. The laboratory experts explained different standards followed as

per IS Codes like IS 10262, IS 456 and IS 383. Students understood how every batch of concrete is tested before dispatch to maintain performance consistency and service life.

This industrial visit was extremely beneficial for students as it enabled them to understand the practical challenges and quality requirements involved in concrete production. They gained confidence in interpreting mix design requirements, identifying testing needs, and understanding the role of civil engineers in ensuring construction quality. The visit significantly enhanced their practical knowledge and prepared them for future roles in sectors such as construction planning, QA/QC in material laboratories, and management of RMC operations. It also highlighted the importance of industrial safety, environmental considerations, and sustainability in the construction industry. Total **45** students visited the site.

The visit was successfully coordinated by **Mr. Vikash Singh** and **Dr. Mohd. Sadat**, Assistant Professors from the Civil Engineering Department. Their systematic planning, guidance, and supervision ensured that all students had an enriching and safe learning experience during the entire visit.