GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING
(Autonomous)
Approved by AICTE & Affiliated to Andhra University, Visakhapatnam from 2022-23
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REPORT

ON

INDUSTRIAL VISIT

SARVANI READY MIX CONCRETE

(RMC) PLANT

4th April 2026

Organized by

Department of Civil Engineering

Gayatri Vidya Parishad College of Engineering (Autonomous)

Under the aegis of Indian Concrete Institute (ICI)

Student chapter

Date of Visit : 4th April 2026

Venue : Marikavalasa Road

DESCRIPTION

The Department of Civil Engineering, Gayatri Vidya Parishad College of Engineering (Autonomous), organized an Industrial Visit to **Sarvani Ready Mix Concrete (RMC)** Plant, Visakhapatnam, with the participation of 40 Civil Engineering students. The visit was conducted under the guidance of Head of Department Prof. **Dr. G. Papa Rao** and coordinated by **Dr. G. Madhuri**, ICI Student Chapter Coordinator. The visit was accompanied by the faculty coordinators **Dr. L. Venkat** and **Dr. G. Santhosh Kumar,** who guided the students throughout the programme. The industrial experts at the plant explained the complete process of Ready Mix Concrete production, including raw material storage, computerized batching, mixing, quality control, and transportation through transit mixers. Students also visited the Quality Control Laboratory, where various tests on cement, aggregates, and concrete were demonstrated using modern laboratory equipment.

The engineers explained the importance of mix design, quality assurance, and adherence to Indian Standard specifications in producing durable concrete. The visit provided valuable practical exposure to industrial construction practices and enhanced the students' understanding of concrete technology beyond classroom learning. It also offered an opportunity to interact with industry professionals and gain insights into real-time quality management systems followed in modern RMC plants. Overall, the industrial visit was highly informative and helped bridge the gap between theoretical concepts and practical applications in civil engineering.

The visit also highlighted the importance of teamwork, safety practices, and quality management in the construction industry. Students observed how modern automation and computerized batching systems ensure consistency and efficiency in concrete production. The interaction with experienced engineers provided valuable insights into industrial standards, career opportunities, and practical challenges in the RMC sector.

The visit encouraged students to relate theoretical concepts learned in classrooms with real-time industrial applications. Overall, the programme served as an excellent learning experience, enhancing both technical knowledge and professional awareness among the participants.

INTRODUCTION :

Industrial visits play a significant role in engineering education by providing students with practical exposure to real-world construction practices and industrial operations. As part of the academic curriculum, the Department of Civil Engineering, Gayatri Vidya Parishad College of Engineering (Autonomous), organized an industrial visit to **Sarvani Ready Mix Concrete (RMC) Plant**, Visakhapatnam. The primary objective of the visit was to understand the complete process involved in the production of Ready Mix Concrete and to observe the quality control measures adopted in the industry.

During the visit, we gained firsthand knowledge of raw material storage, computerized batching, concrete mixing, and transportation using transit mixers. The plant engineers demonstrated the functioning of modern machinery and explained the importance of maintaining accuracy in concrete production. we also visited the Quality Control Laboratory, where various tests on **cement, aggregates, and concrete** were demonstrated.

The visit enhanced the students' understanding of concrete mix design, laboratory testing, and quality assurance procedures followed in accordance with industry standards. It also provided an opportunity to interact with experienced professionals and understand the practical challenges involved in RMC production. Overall, the industrial visit served as an excellent platform to bridge the gap between theoretical knowledge and practical applications, enriching the technical knowledge and professional skills of the participating students.

OBJECTIVES OF THE INDUSTRIAL VISIT

The main objectives of the industrial visit to **Sarvani Ready Mix Concrete (RMC) Plant** were:

- To understand the complete manufacturing process of Ready Mix Concrete (RMC).
- To study the storage, handling, and proportioning of raw materials such as cement, fine aggregates, coarse aggregates, water, and chemical admixtures.
- To observe the computerized batching and mixing process used in modern RMC plants.
- To gain practical knowledge about concrete quality control procedures and laboratory testing methods.
- To understand the importance of concrete mix design in achieving the required strength, durability, and workability.
- To observe the operation of transit mixers and the transportation of concrete to construction sites.
- To learn about safety practices and quality assurance measures followed in the RMC industry.
- To interact with plant engineers and understand the practical applications of concrete technology in the construction industry.

Quality control laboratory :

The Quality Control (QC) Laboratory at the Sarvani RMC Plant plays a crucial role in maintaining the quality, consistency, strength, and durability of Ready Mix Concrete. During the industrial visit, the students were introduced to the laboratory facilities and were explained how quality checks are carried out at different stages of concrete production. The laboratory is involved in checking the properties of raw materials such as cement and aggregates, as well as the properties of fresh and hardened concrete.

The quality control process begins with the inspection and testing of raw materials before they are used in concrete production. **Proper proportioning of cement, fine aggregate, coarse aggregate, water, and chemical admixtures** is essential for obtaining the required concrete performance.

Tests Observed:

Cement Tests: Fineness, Consistency, Initial & Final Setting Time, Soundness. **Aggregate Tests:** Sieve Analysis, Specific Gravity, Water Absorption. **Concrete Tests:** Slump Test, Cube Compressive Strength at 7 & 28 days, Temperature and Workability.

Learning Outcomes:

The industrial visit to **Sarvani Ready Mix Concrete (RMC) Plant** proved to be a highly enriching experience for the students, offering valuable practical exposure to modern methods of concrete production and quality control. Unlike classroom learning, which often remains theoretical, this visit allowed us to witness firsthand the complete cycle of ready mix concrete preparation and delivery. From the moment raw materials such as cement, aggregates, and water were handled and stored, to the precise batching and mixing operations, every stage was demonstrated with clarity and professionalism.

One of the most insightful aspects of the visit was the emphasis on **quality assurance**. The plant engineers explained how continuous monitoring and testing are essential to maintain consistency in concrete production. We were introduced to the **Quality Control Laboratory**, where various tests on cement, aggregates, fresh concrete, and hardened concrete are conducted.

The visit also reinforced the connection between **theoretical concepts** learned in the classroom and their **practical applications** in the construction industry. Topics such as mix design, durability factors, and workability parameters, which we had studied academically, came alive when observed in actual practice. This bridging of theory and practice not only enhanced our technical knowledge but also strengthened our professional outlook, preparing us to meet industry expectations with confidence.

Overall, **the industrial visit to Sarvani RMC Plant was a successful and memorable learning experience.** It broadened our understanding of concrete technology, highlighted the importance of quality control, and provided us with a deeper appreciation of the role of modern production techniques in ensuring reliable and durable construction. By combining classroom knowledge with practical exposure, the visit significantly contributed to our growth as aspiring civil engineers and enriched our technical and professional competence.

Conclusion:

The industrial visit to **Sarvani Ready Mix Concrete (RMC) Plant** was an exceptionally informative and valuable learning experience for the students. It provided comprehensive practical exposure to the entire process of ready mix concrete production, encompassing raw material handling, precise batching, efficient mixing, rigorous quality control, laboratory testing, and safe transportation through transit mixers.

Through this visit, the students developed a deeper appreciation for the critical importance of accuracy, consistency, workability, strength, and durability in concrete production. The interaction with plant engineers and laboratory personnel offered meaningful insights into real-world challenges and reinforced the necessity of strict safety measures and professional discipline in industrial practice.

Most importantly, the visit enabled us to bridge the gap between **theoretical knowledge** acquired in Civil Engineering classrooms and its **practical application** in the construction industry. By observing modern production techniques and quality assurance procedures firsthand, the students enhanced their technical competence, practical skills, and professional awareness.

Overall, the visit to Sarvani RMC Plant successfully strengthened our understanding of concrete technology and contributed significantly to our growth as future civil engineers.