

INDUSTRIAL VISIT REPORT

Batch: 2020-2024

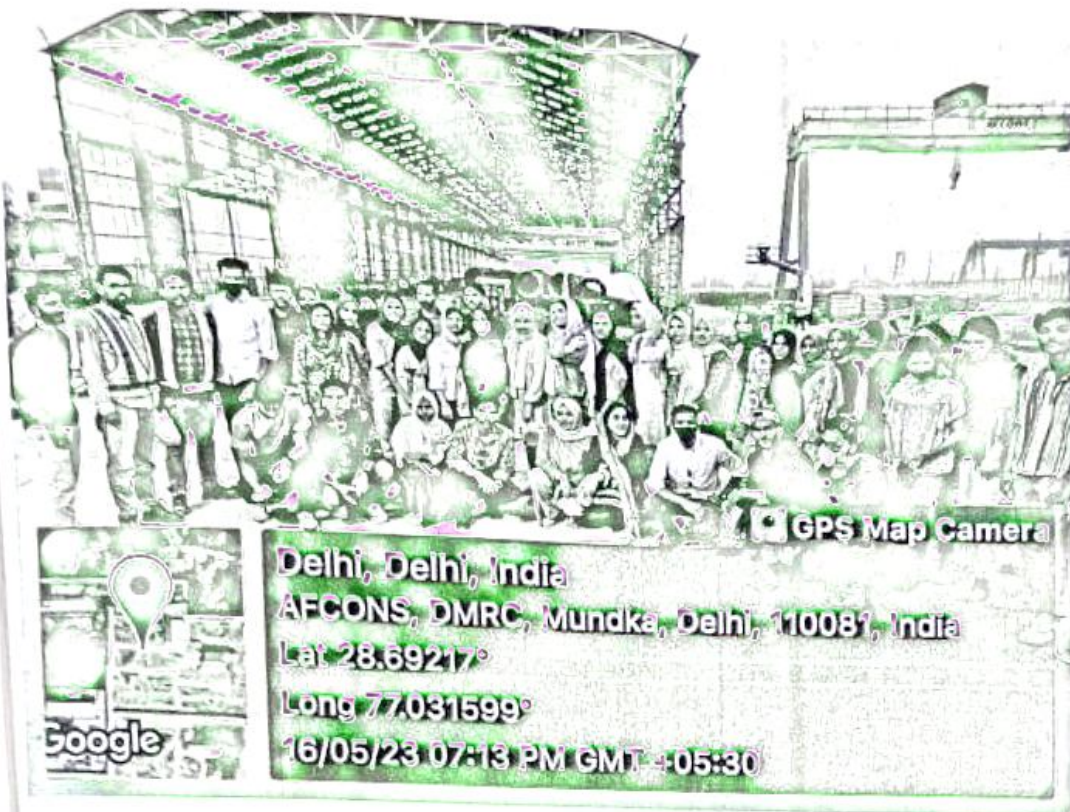
Department of Civil Engineering

Date: 01-06-2023



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Principal
MEA Engineering College
Perinthalmanna

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24/6/23
Head of the Department
Department of Civil Engineering
MEA Engineering College
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Place of Visit: PRECAST YARD OF DELHI METRO(SILVER LINE PHASE 4), Mundka, Delhi

Date of Visit: 16-05-2023

Department/Class: 20CE1

Name of the faculty was accompanied: Mr. Mohamed Anees K and Mrs. Rahila Thaskeen

Rahila

Mohamed Anees K

Aim & Objective of the industrial visit

Industrial visit is considered as one of the tactical methods of teaching. The main reason behind this- it lets students know things practically through interaction, working methods and employment practices. Moreover, it gives exposure from an academic point of view. Main aim of industrial visit is to provide an exposure to students about practical working environment. They also provide students a good opportunity to gain full awareness about industrial practices. Through industrial visits students get awareness about new technologies. Technology development is a main factor, about which a student should have a good knowledge. Visiting different companies actually help students to build a good relationship with those companies. We know building relationships with companies will always help to gain a good job in future. After visiting an industry students can gain a combined knowledge about both theory and practical. Students will be more concerned about earning a job after having an industrial visit.

The primary objectives of the industrial visit to DMRC, AFCONS, Mundka were as follows:

- Gain insight into the manufacturing process of precast tunnel segments.
- Understand the quality control measures implemented during production.
- Learn about the safety protocols and standards followed in the manufacturing facility.
- Witness the advanced machinery and technology employed in the production process.
- Explore the role of AFCONS DMRC in the development of the Delhi Metro Rail project.

Subjects covered under this industrial visit

- Introduction to Precast Tunnel Segments.
- Manufacturing Process.

- Quality Control Measures.
- Safety Protocols.
- Machinery and Technology.
- AFCONS DMRC's Contribution to Delhi Metro

Programme Outcome mapped with this industrial visit

- Engineering knowledge
- Modern tool usage
- The engineer and society
- Environment and sustainability
- Ethics
- Individual and team work
- Communication
- Life- long learning

Profile of the industry

Delhi Metro Rail Corporation (DMRC):

Delhi Metro Rail Corporation is a company responsible for the development and operation of the Delhi Metro, a rapid transit system serving the National Capital Region of India. DMRC was established in 1995 and has played a pivotal role in transforming the public transportation landscape in Delhi. The metro network spans over 390 kilometres with multiple lines and serves millions of passengers daily. DMRC is known for its efficient operations, modern infrastructure, and commitment to safety and sustainability.

AFCONS Infrastructure Limited is a leading Indian infrastructure development company. Established in 1959, AFCONS has a strong presence in various sectors, including transportation, energy, marine, and industrial infrastructure. The company specialises in executing complex engineering and construction projects, both in India and internationally. AFCONS has successfully completed numerous projects, such as bridges, metro rail systems, ports, power plants, and offshore installations. The company is known for its expertise in delivering high-quality projects within strict timelines.

AFCONS DMRC is involved in the production of precast tunnel segments for the Delhi Metro Rail project. These segments are a crucial component of the tunnel construction process and play a vital role in ensuring the safety and structural integrity of the underground metro tunnels. The company employs advanced techniques and machinery to manufacture these precast tunnel segments

Summary of the industrial visit

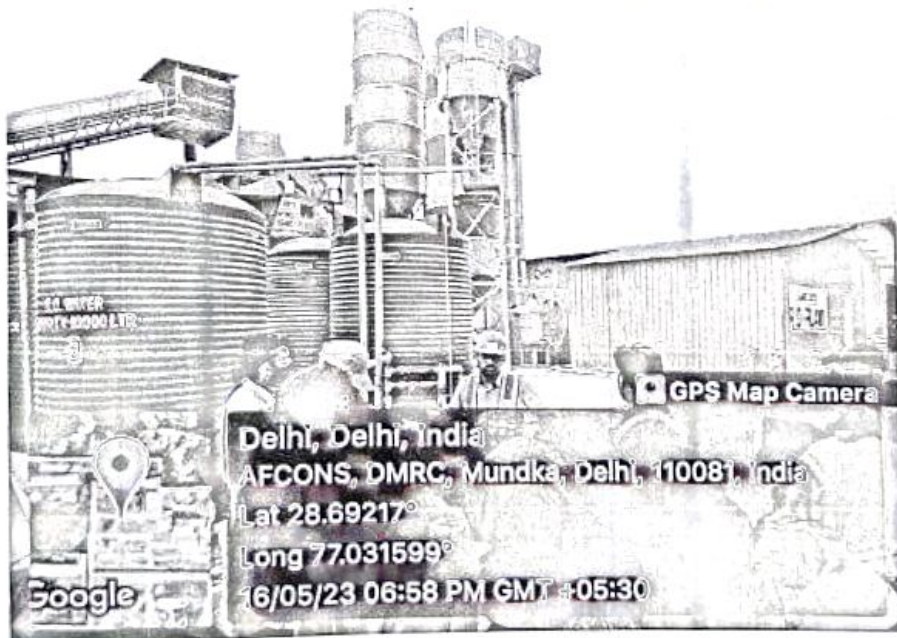
The purpose of this report is to provide a comprehensive overview of an industrial visit to AFCONS DMRC (Delhi Metro Rail Corporation) in Mundka, Delhi, India, with a focus on the precast tunnel segment manufacturing process. AFCONS DMRC is a renowned construction company that has played a crucial role in the development of the Delhi Metro rail network.

The visit began with an overview of the significance of precast tunnel segments in metro tunnel construction. The guide, Vikas Singh (Junior Engineer) explained the purpose, design, and characteristics of these segments.

The visit included a detailed walkthrough of the manufacturing process. The production facility was equipped with automated machinery for mixing concrete, casting molds, and curing the segments. The guide explained each step of the process, highlighting the use of high-strength concrete and the precise measurements required. AFCONS DMRC emphasized the importance of quality control in the manufacturing process. The visit included a demonstration of various quality checks conducted during and after production, such as compressive strength testing, dimensional accuracy, and visual inspections.

The company's commitment to safety was evident throughout the visit. Visitors were provided with safety gear and given a safety briefing before entering the production area. The guide explained the safety protocols followed to minimize the risk of accidents and ensure a safe working environment. The industrial visit provided an opportunity to witness the advanced machinery and technology employed by AFCONS DMRC. This included automated concrete mixing plants, robotic arm systems for segment handling, and precision casting molds. The guide

explained the benefits of these technologies in terms of efficiency, accuracy, and consistency in production.
Geo-tagged photos of IV





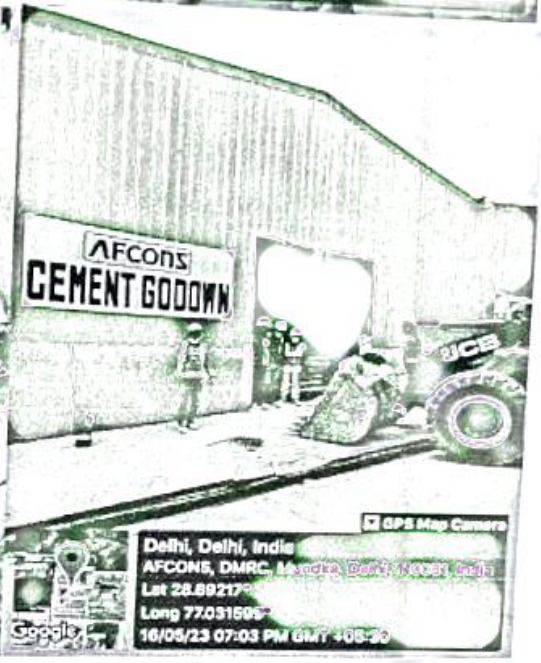
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Outcome of the industrial visit

- Understanding the significance of precast tunnel segments in metro tunnel construction.
- Knowledge of the manufacturing process, quality control measures, and safety protocols implemented by AFCONS DMRC.
- Insight into the advanced machinery and technology employed in the production process.
- Appreciation for AFCONS DMRC's contribution to the Delhi Metro Rail project.

Feedback & Impact Analysis

The industrial visit to AFCONS, DMRC, Mundka provided a valuable learning experience regarding the manufacturing of precast tunnel segments for the Delhi Metro Rail project. The visit enhanced understanding of the process, quality control measures, and safety protocols involved in producing these critical components. AFCONS DMRC's advanced machinery and technology showcased the company's commitment to innovation and efficiency. This industrial visit helped us to understand the importance of practical sessions as well as helped to find the applications of our lab experiments in the real world works.

Prepared By

20CE1

ILHAM MUSTHAFA-K

Ilham

MEA ENGINEERING COLLEGE			MEA ENGINEERING COLLEGE		
Sl No	Roll No	Name of student	SI NO	ROLL NO.	Name of Student
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2	02	ABDUL ZAYAN	42	91	IRFANUL HAQUE
3	03	ADHILA	43	93	MOHAMMED ALI
4	05	ADIL JAHAN .P	44	94	MOHAMMED HASHIR NK
5	07	AHSANA.P.M			
6	08	AJMAL HAVAS			
7	09	ALMAS NOWLU			
8	10	AMEENA. C.K			
9	11	AMINA RINSHA.T.T			
10	12	AMJAD K			
11	13	ANSHIDHA ANWAR. C. M			
12	14	ANUSHA .A			
13	15	ARJUN . M			
14	16	ARJUN KRISHNA P			
15	17	AYISHA NASHWA P			
16	18	DHANISH AHAMMED M T			
17	19	DHANYA R			
18	20	DILSHAHAD AKRAM			
19	21	FARHANA K T			
20	22	FARIS FASAL. P.V			
21	23	FATHIMATH HANNA			
22	24	FATHIMATH SHAHMA P			
23	25	FIBA FAISAL N T			
24	26	HAMDHA RAHMA. P.K			
25	27	HAMZA KALATHIL			
26	28	HANA FATHIMA.M T			
27	31	HIBA . T			
28	32	HIBA .K			
29	33	HUDA.N			
30	34	ILHAM MUSTHAFA. K			
31	35	IRFANA THASNI			
32	36	JAHANA NASRIN.C.T			
33	37	JESEERA.T.P			
34	38	LUBABA FEBIN			
35	39	LULU FARHANA K T			
36	40	MINU RISANA. P.P			
37	41	MOHAMED HISHAM			
38	42	MOHAMMED ADHIL.P.P			
39	43	MOHAMMED JASEEM			
40	45	MOHAMMED NUSUR. C. U			