REPORT
ON

INDUSTRIAL VISIT TO

AARTI STEELS LIMITED

GHANTIKHALA, CUTTACK

18TH FEBRUARY 2026

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

PARALA MAHARAJA ENGINEERING COLLEGE,

BERHAMPUR

INDUSTRIAL VISIT SUMMARY

Venue: **Aarti Steels Limited, Ghantikhala, Cuttack**
Date: **18th February 2026**
Organized by: **6th Semester students**
Transport: **Private Transport (30-seated bus)**
Visit Started: **4:30 AM from PMEC, Berhampur**
Visit Completed: **8:30 PM at PMEC, Berhampur**

LIST OF FACULTIES	
Sl. No.	**Name of the Faculties**
1.	Mr. Rahul Ranjan Mohanta
2.	Mrs. Sahukari Nagamani

LIST OF STUDENTS		
Sl. No.	**BPUT Registration No.**	**Name of the Students**
1	2301109068	Preetimayee Sahoo
2	2301109514	Anshuman Sahoo
3	2301109515	Chandrakanta Karan
4	2301109516	Kajal Satapathy
5	2301109517	Sanskruti Sahu
6	2301109518	Subham Mahankuda
7	2421109223	Abhismeet Bhutia
8	2421109224	Asit Kumar Dehury
9	2421109225	Ayushman Sahoo
10	2421109226	Bapuji Behera
11	2421109227	Bikram Soren
12	2421109228	Debasish Biswal
13	2421109229	Debasish Mahanta
14	2421109230	Hariomm Prasad Patra
15	2421109231	Jaanvi Rani Prasad
16	2421109232	Jayanta Kumar Sahu
17	2421109233	Kshitish Kumar Majhi
18	2421109234	Md Gulam Rabbani
19	2421109236	Pratik Pranay Prusty
20	2421109237	Rahul Kumar Patra
21	2421109238	Sachin Kumar
22	2421109239	Sandip Mohanty
23	2421109241	Subrat Kumar Biswal
24	2421109242	Sujan Kumar Sahoo
25	2431109004	Santanu Kumar Jena

The Industrial Visit

The 6th-semester students of the Metallurgical and Materials Engineering Department of Parala Maharaja Engineering College, Berhampur, had the opportunity to attend a one-day Industrial visit to Aarti Steels Limited, Ghantikhala, Cuttack. The objective of this visit was to provide students with hands-on exposure to industrial operations and practical applications of engineering principles. The study visit was an integral part of the academic curriculum aimed at enhancing the students' knowledge and understanding of real-world engineering practices.

Schedule of the Visit

- **Arrival at Aarti Steels Limited, Ghantikhala, Cuttack:** 10:00 AM
- **Industrial Session:** 10:25 AM to 11:30 AM
- **Tea Break:** 11:45 AM to 12:00 PM
- **Industrial visit:** 12:00 PM to 01:30 PM
- **Interactive and Feedback Session:** 01:35 PM to 01:55 PM
- **Departure:** 02:00 PM

Visit to Industrial Units

At Aarti Steels Limited, Ghantikhala, Cuttack, students were introduced to the functioning of steel industry units used for producing steel billets from Direct Reduced Iron for various automotive applications. Key highlights of this visit included:

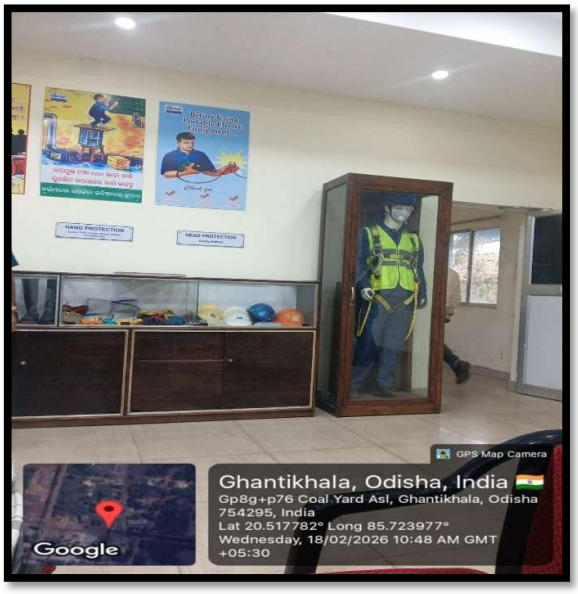
- An industrial session on safety instruction, plant functional units' details, and industry rule regulations.
- A guided tour of the manufacturing and assembly units of the industry.
- Discussions in detail on the functions and engineering challenges in different units for manufacturing steel billets.
- Insights into quality control measures and safety protocols for different operational units.

The session provided students with a comprehensive understanding of the production lifecycle of steel billets from DRI and the importance of precision in Metallurgical Engineering.

Industrial Visit in Detail

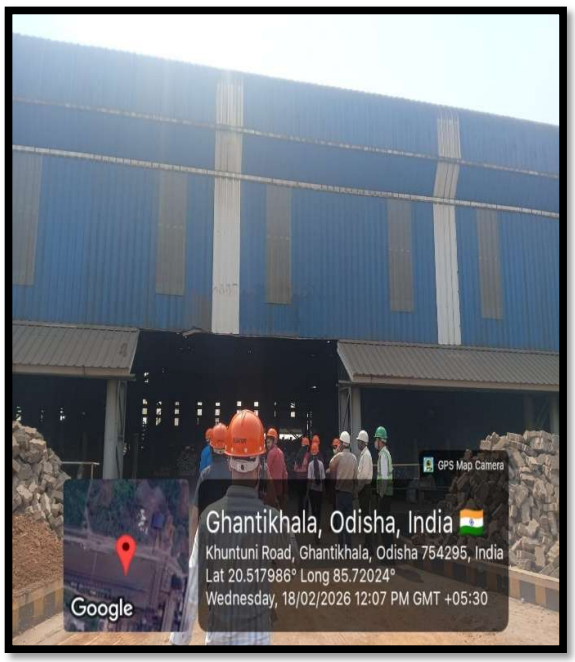
The students arrive at the steel industry at 10:00 AM and undergo a safety check, including checking their shoes and verifying the identification of every member. All members get a gate pass for an inside visit to the industry, along with a vehicle at the main gate. After the security and safety check, the visit is started by the guided person, Mr. Abhinash sir (Industrial Security Head), to the Safety Excellence Centre.

All members are gathering at the Safety Excellence Centre for an industrial session on industrial safety instructions by Mr. Rajkishor Sir (Industrial Safety Head, ASL), about Steel Industry Functional units by Mr. Pratap Reddy Sir (DGM-HR, ASL), and industry rules & regulations by Mr. Gyana Sir (HR, ASL).



After the Compilation of the Industrial session, all members are offered tea by industry professionals. After the break, all members are wearing safety helmets provided by the safety department. All members are ready to go for the industrial visit. There are units to visit the Direct Reduced Iron (DRI) Preparation Plant, Power Plant, Water Reservoir, Steel Melting Shop (SMS) Plant, and Rolling Mill.

The major focus unit to observe completely is the Rolling Mill (production and assembly unit). This unit has a Reheating Furnace (RHF), Blooming Mill, 13 Stands for pressing, a cooling bed, a Billet Quality Checking Area, and a Billet Assembly Area with safety measures.



At Rolling Mill, students observed the Reheating Furnace reheat the beam and feed it to the roller to extend the size of the billet by applying shear force with the help of 13 continuous pressurized stands at the bloom mill. After each stand operation beam head is cut for smooth movement of the beam from one stand to another stand and reaches the cooling bed unit. At the production line, the billets are undergoing quality checks by both mechanical and chemical property analysis, and are manufactured with different dimensions for metallurgical applications and automotive applications.

All students gain practical knowledge about DRI, Power Plant, Beam heating, SMS Plant, rolling, pressing, manufacturing, quality checking, and safety of industrial units.

Study Report on Industrial Visit

About The Aarti Steel Ltd.

Aarti Group, Where Steel Meets Innovation. In Partnership for over 60 Years, Leading in Sustainability, Pioneering Clean Steel with Tata. A Trusted Journey Towards Quality, Innovation, and Sustainable Growth. Aarti Group, established in 1979, operates across the steel, textile, and healthcare sectors. The steel plants operate at Ludhiana, Punjab, and Cuttack, Odisha. With an annual turnover of ₹2500 crore, the plant is committed to quality, evident in our ISO accreditations. Collaborating with Tata Steel for over 60 years, they specialize in innovative technology solutions, sustainability practices, and fostering enduring partnerships in the global market.

- Steel Excellence
- Global Scrap Recycling
- Sustainable Practices
- Expert Engineers
- Long-Term Partnerships
- Certified Engineers

With a rich legacy spanning over four decades, they have diversified into steel, leaving an indelible mark of excellence in everything. They have a sponge iron plant, a ferro-alloy plant, a power plant, a steel melting shop, and a rolling mill.

DRI unit

- Two rotary kilns for DRI production.
- Sponge iron with a conveyor for the movement of products.
- Capacity of production 240000 MT per Annum.

Power Plant

- Capacity of 90 MW.
- 40 MW from the old unit & 50 MW from the new unit.
- 25 MW exporting to the local area.

Ferro Alloy Plant

- Submerged Arc Furnace.
- Capacity of 9 MVA (2 Nos.).
- Capacity of 18 MVA (1 Nos.).

Steel Melting Shop (SMS) Plant

- Electric Arc Furnace, capacity of 40 MT.
- Ladle Refining Furnace, capacity of 40 MT.
- Vacuum Degassing unit, capacity of 40 MT.
- Continuous Casting Machine, production of 9, 13, 25 meters beam.

Rolling Mill

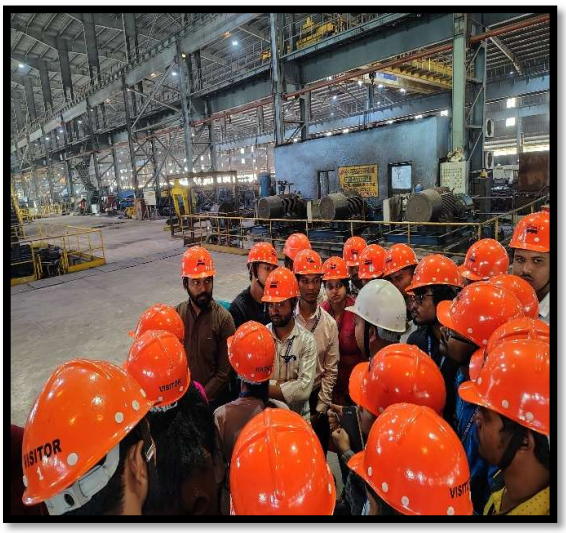
- Moving beam Reheating Furnace (RHF).
- Blooming Mill.
- Roller.
- 13 Continuous Pressing Stands.
- Turnover type cooling bed.

Photo Album of Industrial Visit

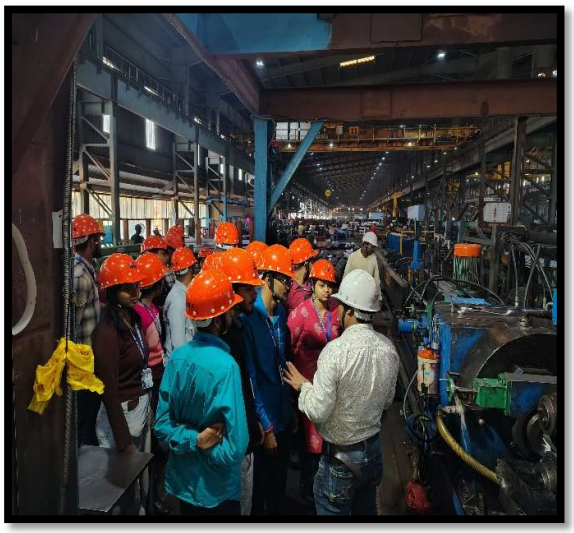
INDUSTRIAL SESSION ON THE STEEL PLANT

INDUSTRIAL SESSION ON SAFETY & READY FOR THE VISIT

INDUSTRIAL UNIT VISIT



REHEATING FURNACE SITE VISIT



BLOOMING MILL VISIT

ASSEMBLY POINT OF BILLET

PHOTO WITH INDUSTRY PROFESSIONALS AFTER VISIT

PHOTO AFTER COMPLETION OF VISIT AT THE FRONT GATE

Student Feedback

Students found the industrial visit immensely beneficial, as it bridged the gap between theoretical knowledge and practical application. Many expressed appreciation for the interactive sessions and the opportunity to observe real-time industrial operations. The guidance from industry professionals was highly valued.

----- THANK YOU -----