



Dr. Ambedkar College, Deekshabhoomi, Nagpur

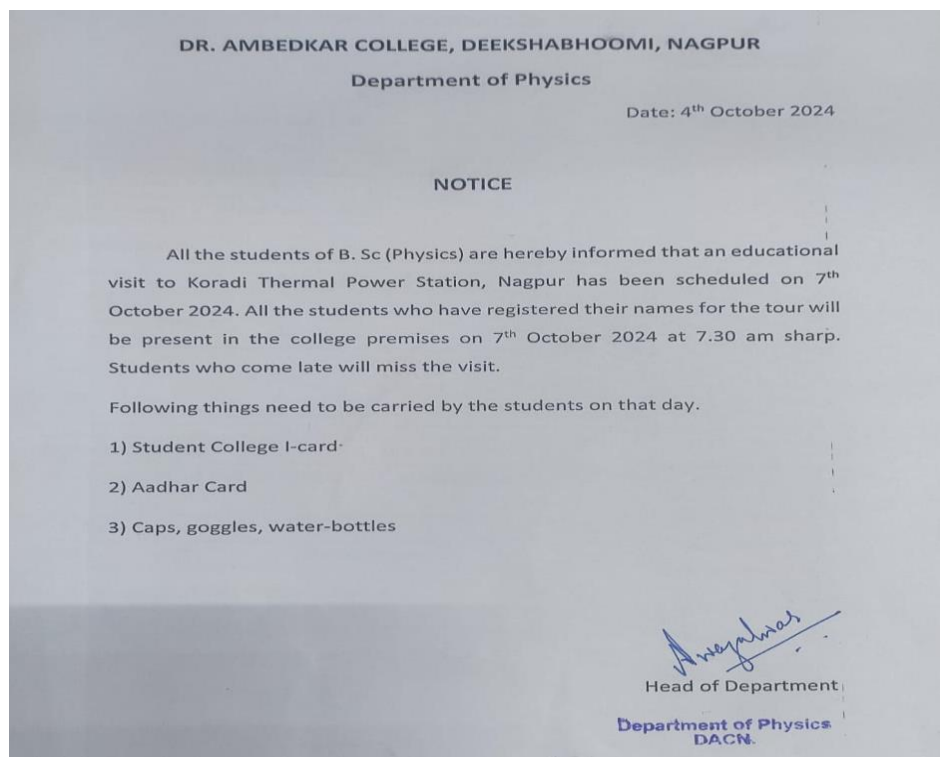
Department of Physics

session 2024-25

Name of the Program : An Educational visit to Koradi Thermal Power Station
Date of the Program : 7/10/2024
Number of participants : 48
Hosted by : Department of Physics
Resource Person : Mr. Ankush Almulwar and Mr. Akshay Wankhede
Registration Link :

https://docs.google.com/forms/d/e/1FAIpQLSe7Hr_J5HRGZJ-FYOPvYN0nbNe9-Xeg65CgkpDplpwLQB5kfw/viewform

NOTICE



Program objectives:

- 1) To learn the functioning of a coal based steam power plant.
- 2) To understand the conversion of mechanical energy to electrical energy.

3) To understand the concepts and sustainable practices in running a coal based power plant.

Educational visit is a crucial component of the academic program because it give students the chance to learn outside of the classroom and get useful practical experience. Retired American zookeeper Jack Hanna once said

“The world is the true classroom. The most rewarding and important type of learning is through experience, seeing something with our own eyes.”

It refers to the idea that seeing something being done in a certain location helps people remembers it better.



Permission letter



PARAMPOOJYA DR. BABASAHEB AMBEDKAR SMARAK SAMITI, DEEKSHABHOOMI, NAGPUR

DR. AMBEDKAR COLLEGE

COLLEGE WITH POTENTIAL FOR EXCELLENCE

DEEKSHABHOOMI, NAGPUR-440 010 (M.S.)

E-MAIL : dacn_ngp@rediffmail.com

prncipal.dacn.edu@gmail.com

web : www.dacn.in

Ref.No.AC/ 190/2024-2025

Date : 23-09-2024

To,
The Chief Engineer (O & M),
MSPGCL, KTPS, Koradi, Nagpur - 441111.

Sub- Request for Internship/Industrial Visit

Sir/Madam,

As per curriculum, students have to undergo internship/industrial visit in industry during academic Session 2024-25. The following information is furnished regarding permission of internship/industrial visit at KTPS, Koradi.

Details of Students -

1. Name of Institute -Dr. Ambedkar College, Deekshabhoomi, Nagpur.
2. Department-Physics
3. No. of participants-40/45
4. Name of student-List of participants is given below.
5. Duration for internship(Weeks)- -
6. Internship) period from- _____ to _____
7. Date of Industrial Visit-

Details of Coordinators-

Name & Designation-

- 1) Dr. Aarti Wazalwar (HOD, Physics)
Mobile No. 9611055888
Email I.D. - aartiwazalwar@yahoo.com
- 2) Dr. Pranita C. Deshpande (Faculty, Physics)
Mobile No.-8007863417 / 8830910692
E-mail I.D.-pcdeshpande07@gmail.com

Pre-requisites for grant of permission of internship/industrial visit:

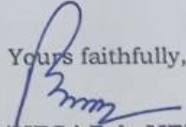
(Permission will be granted only after completion of prerequisites)

1. Fees (@Rs 100+18%GST/Student/Day) Paid- YES / NO
(Fees paid is non-refundable in any circumstances.)
2. Fees payment copy forwarded to TSC (tscktps@mahagenco.in)- YES / NO
(Fees can be paid in any mode Online/Cash/RTGS/DD in A/c No.
10593447049, IFSCBIN0003904)

If permission is granted by the Company, it will be committed to the discipline, rules and regulation of the Company.

Thanking you in anticipation.

Yours faithfully,


(DR. (MRS.) B.A. MEHERE)
PRINCIPAL
DR. AMBEDKAR COLLEGE
NAGPUR

The Department of Physics at Dr. Ambedkar College, Nagpur had organized an educational visit to Koradi Thermal Power Station, Nagpur on 7/10/2024 for the students of B. Sc. (First year - Final year). The visit was organized with the prior permission and guidance of Head, Department of Physics, Dr. A. N. Wazalwar. It was coordinated by Dr. P. C. Deshpande.

Around 48 students opted Physics visited KTPS (3×660 MW) coal based steam power plant, in two batches. Visit started with a security rules briefing during which we were given oral instructions from the security department of the KTPS. Then after we reached at the core area of the thermal power station where KTPS instructors provided us helmets and instructed about the important safety rules to comply with at all times. KTPS team then divided us in two groups. The groups were then given in charge of Mr. Ankush Almulwar and Mr. Akshay Wankhede, both were Junior Engineers, who arranged our visit to the plant and explain the working of different parts.

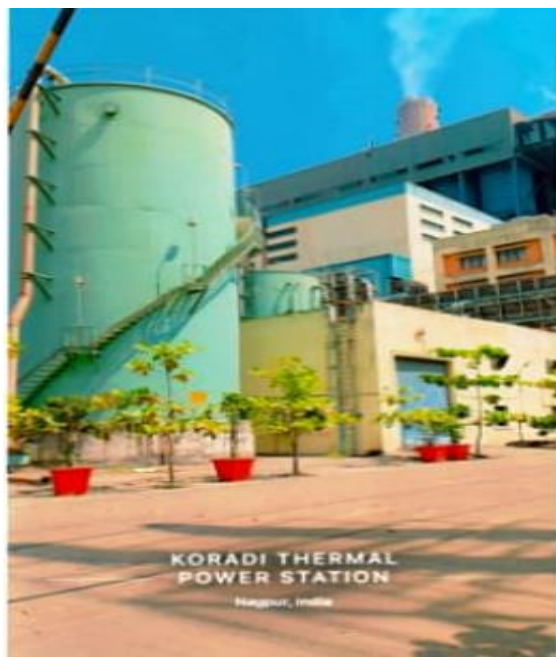
Various Thermal Power Plant Units :

1. Coal Handling Plant
2. Ash Handling Plant
3. Boiler
4. Super heater
5. Air Pre-heater
6. Pulverizer
7. Turbine
8. Chimney
9. Feed Pump
10. Generator (Alternator)
11. Switch Yard
12. Exciter
13. Condenser
14. Transformer
15. Wagon Tippler



Function :

The coal was brought from Western Coal Field (WCL Khaparkheda Unit) and it would be crushed to increase the gross calorific value. The water used for cooling and all other materials were bought from the nearby Pench river and Koradi dam. The instructors explained us about wagon tippler, where coal (from the coal field) on wagons is dumped into an apron feeder. This coal is then crushed into the required size and stored in the coal handling plant. We were also educated about the transformers, cooling towers, boilers and the chimneys. The height of the chimney was 210 meters.



We were explained how KTPS made its prime objective to keep the environment clean and hence the use of electrostatic precipitators. At the end we were also educated about the working of 4.8 kW hydroelectric plant, installed by the power plant management, as a green energy initiative. It was a great experience to actually take a look at whatever we had studied in theory could be materialized into the practical. Our knowledge was enriched about the coal to electricity cycle in detail. KTPS has generated 660 MWatt electricity upto the year 2022 which will be distributed to the Vidarbha region. Now in 2024, it becomes $(660 \times 3 = 1980 \text{ MWatt})$ generator which transfer electricity not only in Vidarbha region but to the eastern Maharashtra as well.

It gave us a new perspective about our subject Physics and strengthened our concepts of Power Station Practices. The guiding staffs of both college as well as Power Plant were very supportive to all students. We hope that this visit will help us in our future practical life and bring a positive change in our thinking and practical behavior regarding the education and specially in core science learning.



Learning Outcomes


1. Practical knowledge: Students can gain a practical understanding of how a power plant works, including the stages of power generation and distribution.
2. Theoretical concepts: Students can apply theoretical concepts to real-world scenarios

3. Environmental impact: Students can learn about the environmental impact of power generation, including emissions control technologies and renewable energy integration.

4. Safety: Students can learn about safety protocols, including the use of personal protective equipment and emergency procedures.

5. Technology: Students can learn about the advanced technology used in power generation, including control rooms and monitoring systems.

Attendance


Dr. Ambedkar College, Deekshabhoomi, Nagpur
Department of Physics
Session 2024-25
Attendance for Industrial Visit at Koradi Thermal Power Station, Nagpur
List of participants (7th October 2024)

Sr. No.	Name of participant	Class	Contact no.	Sign-in	Sign-out
✓ 1	Prajwal Injewar	B. Sc. Sem I	8010417195	[Signature]	[Signature]
✓ 2	Priyal Gudadhe	B. Sc. Sem I	9028514557	[Signature]	[Signature]
✓ 3	Harshalata Gawate	B. Sc. Sem I	9823451999	[Signature]	[Signature]
✓ 4	Astha Bhoskar	B. Sc. Sem I	9307263079	[Signature]	[Signature]
✓ 5	Parnashri Bhagat	B. Sc. Sem I	9325065539	[Signature]	[Signature]
✓ 6	Yashashree Gandham	B. Sc. Sem I	9028970837	[Signature]	[Signature]
✓ 7	Mahekpreet Rai	B. Sc. Sem I	9579701711	[Signature]	[Signature]
✓ 8	Diksha Meshram	B. Sc. Sem I	8407984842	[Signature]	[Signature]
✓ 9	Manaswi Bhatankar	B. Sc. Sem I	9373645020	[Signature]	[Signature]
✓ 10	Kapil Fulzele	B. Sc. Sem I	8010264960	[Signature]	[Signature]
✓ 11	Anushka Chake	B. Sc. Sem I	7385278284	[Signature]	[Signature]
✓ 12	Khushbu Shingru	B. Sc. Sem I	8767261664	[Signature]	[Signature]
✓ 13	Vikas Shukla	B. Sc. Sem I	8793935323	[Signature]	[Signature]
✓ 14	Sakshi Uikey	B. Sc. Sem I	9356797650	[Signature]	[Signature]
✓ 15	Rudranand Bharti	B. Sc. Sem I	8830124673	[Signature]	[Signature]
✓ 16	Nitish Kamble	B. Sc. Sem I	8308290048	[Signature]	[Signature]
✓ 17	Vinit Panghate	B. Sc. Sem I	8624964790	[Signature]	[Signature]
✓ 18	Sankalp Patil	B. Sc. Sem I	9325535994	[Signature]	[Signature]
✓ 19	Ashwini Lanje	B. Sc. Sem I	8329033805	[Signature]	[Signature]
✓ 20	Tejaswini Pahade	B. Sc. Sem I	7499479793	[Signature]	[Signature]
✓ 21	Nidhi Tayade	B. Sc. Sem I	9699739441	[Signature]	[Signature]
✓ 22	Payal Bhide	B. Sc. Sem III	7721980795	[Signature]	[Signature]
✓ 23	Pranjali Lanjewar	B. Sc. Sem III	8421086826	[Signature]	[Signature]
✓ 24	Khushi Moharle	B. Sc. Sem III	9689146248	[Signature]	[Signature]
✓ 25	Mohini Shende	B. Sc. Sem III	8668671569		
✓ 26	Aditi Shahane	B. Sc. Sem III	8605760489	[Signature]	[Signature]
✓ 27	Samiksha Naik	B. Sc. Sem III	9322839731	[Signature]	[Signature]
✓ 28	Disha Shende	B. Sc. Sem III	9404538413		
✓ 29	Vaishnavi Lamse	B. Sc. Sem III	8767354208		

30	Shrutika Nimje	B. Sc. Sem III	9130476221		
31	Bhagyashree Bagalkar	B. Sc. Sem III	7020564465	<i>Bhagyashree</i>	<i>Bhagyashree</i>
32	Arpita Rajput	B. Sc. Sem III	6268386488	<i>Arpita</i>	<i>Arpita</i>
33	Yashashree More	B. Sc. Sem III	7620559407	<i>Yashashree</i>	<i>Yashashree</i>
34	Harnish Humane	B. Sc. Sem III	7507914785	<i>Harnish</i>	<i>Harnish</i>
35	Atharva Mote	B. Sc. Sem III	8208290537	<i>Atharva</i>	<i>Atharva</i>
36	Ayush Fendar	B. Sc. Sem V	7083277620	<i>Ayush</i>	<i>Ayush</i>
37	Sujal Kohale	B. Sc. Sem V	7043193085	<i>Sujal</i>	<i>Sujal</i>
38	Harshad Meshram	B. Sc. Sem V	7262873793	<i>Harshad</i>	<i>Harshad</i>
39	Sanatkumar Alam	B. Sc. Sem V	9423389465	<i>Sanatkumar</i>	<i>Sanatkumar</i>
40	Dr. Aarti Wazalwar		9611055888	<i>Aarti</i>	<i>Aarti</i>
41	Dr. Namrata Pradnyakar		7775023857	<i>Namrata</i>	<i>Namrata</i>
42	Dr. Pritee Wakudkar		9423544117	<i>Pritee</i>	<i>Pritee</i>
43	Dr. Amit Bansod		9923024400	<i>Amit</i>	<i>Amit</i>
44	Dr. Pranita Deshpande		8007863417	<i>Pranita</i>	<i>Pranita</i>
45	Pooja Fulekar		8668731568	<i>Pooja</i>	<i>Pooja</i>
46	Yashpal Gedam		7507400791	<i>Yashpal</i>	<i>Yashpal</i>
47	Ishika Ampatwar		8421253876	<i>Ishika</i>	<i>Ishika</i>
48	Manisha Raghuwanshi		9011709832	<i>Manisha</i>	<i>Manisha</i>
49	Shital Kurve		7709991412	<i>Shital</i>	<i>Shital</i>
50	Vinod Chaudhari		9665039442	<i>Vinod</i>	<i>Vinod</i>
51	Chandrashekhar Hedaoo		9922239612	<i>Chandrashekhar</i>	<i>Chandrashekhar</i>
52	Pravin Katakwar		8605396168	<i>Pravin</i>	<i>Pravin</i>
53	Pooja Tasalwar		8308363872	<i>Pooja</i>	<i>Pooja</i>

Payment details

MAHARASHTRA STATE POWER GENERATION CO. LTD.

MAHAGENCO
Maharashtra State Power Generation Co. Ltd.

Original

RECEIPT/PAYMENT CONFIRMATION: Date: 07.10.2024

Cash/Money Receipt Number: 602622
Accounting Document Number : 0001131897
Cash Journal Document Number : 638533
Cash journal: CJ - KORADI T.P.S.
G/L Account Number (Cash Journal): 24440
GSTIN Number : 27AAECM2935R1ZV

DESCRIPTION:

From/to:
Transaction: MISCELLENEOUS INCOME
Vendor No:
Customer No:
Personnel Number:
Currency: INR

Amount: 4,800.00
SGST: 432.00
CGST: 432.00
IGST: 0
(SGST Output 9% + CGST Output 9%)

Payment Amount: 5,664.00

In words: INR FIVE THOUSAND SIX HUNDRED SIXTY FOUR Rupees ONLY

G/L Acc	Bus.Area	Check No.	Bank Account
62990	B120	6041819554850	0

Text : INDUSTRIAL VISIT FEES FROM Dr.AMBEDKAR CLG

For Maharashtra State Power Generation Co. Ltd.

Received original

Forwarded
Aneyshwar

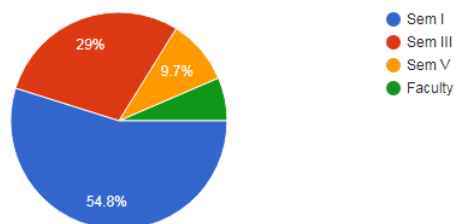
Head & Professor,
Dept. of Physics
Dr. Ambedkar College,
Mumbai, India.

T (M.S. Power Gen. Co. Ltd.)
M.S. Power Gen. Co. Ltd.
T.P.S., Koradi
Buk
0710

Feedback

Year

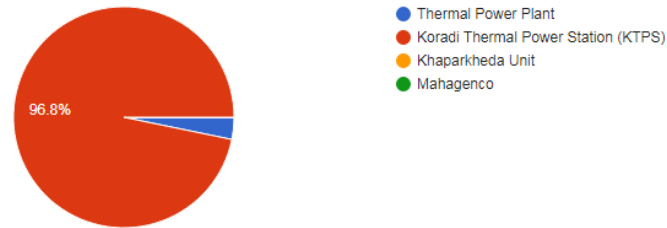
31 responses



What is the name of the place you visited?

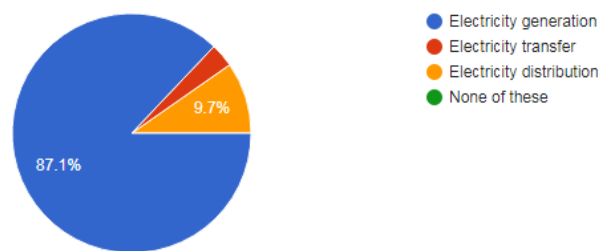
 Copy chart

31 responses



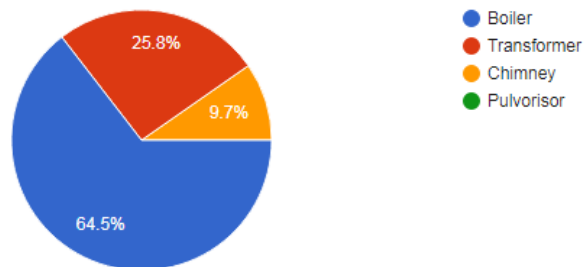
What is it known for?

31 responses



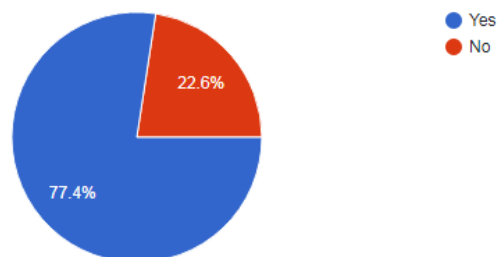
Which part of this power station was more fascinating to you?

31 responses



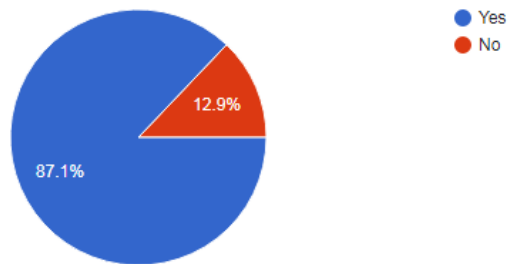
Can you deliver a seminar in our college based on the knowledge you gain?

31 responses



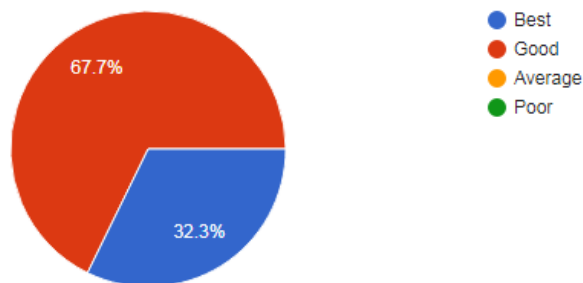
If given a chance, would you like to participate in the internship program of KTPS

31 responses



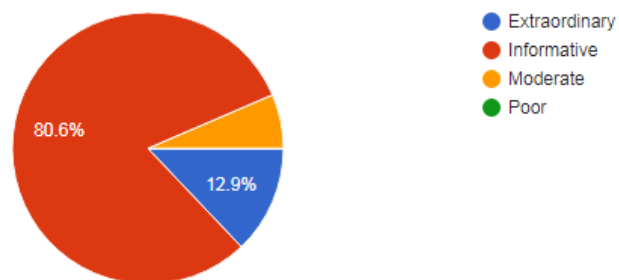
Rate your experience about this visit.

31 responses



Did the resource person explained well about power generation?

31 responses



Submitted to

Dr. A. N. Wazalwar
Head of the Department of Physics,
Dr. Ambedkar College, Deekshabhoomi, Nagpur.