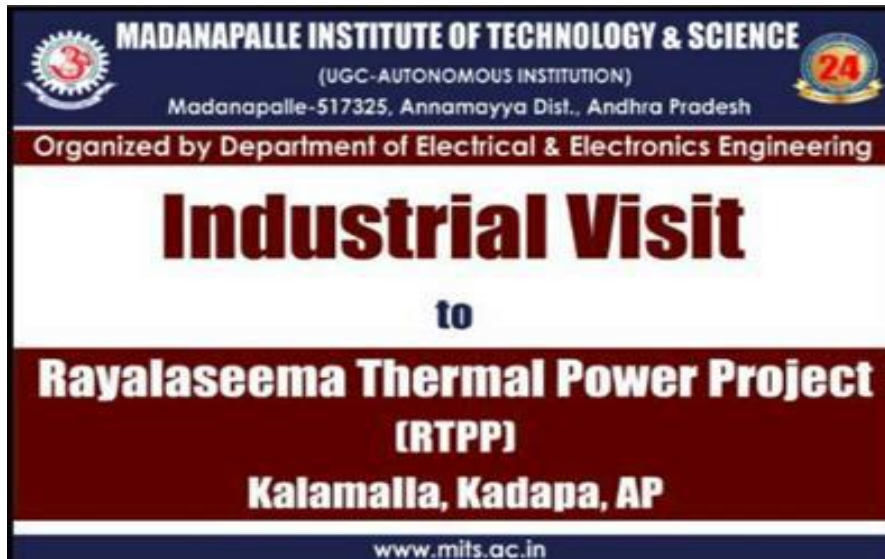


**A Report on Industrial Visit to
"Rayalaseema Thermal Power Project (RTPP)"
Organised by Department of Electrical & Electronics Engineering
03.12.2023**



Submitted by **Mr. Ch Srinivas** Assistant Professor, EEE: **Mr. D Sravanan**, Assistant Professor, EEE & **Mrs. K Revathi** Assistant Professor, EEE

No. of students visited:43

Year & Semester : III Year I semester B. Tech III Year EEE students

No. of faculty Members accompanied: 04

Date: 03.12.2023

Report received on 22.12.2023

One-day Industrial Visit to Rayalaseema thermal Power Project (RTPP), Muddanur was organized for the III Year I semester B. Tech, EEE-B students on 03rd December 2023.

Faculty Accompanied:

1. Mr. Ch Srinivas,
2. Mr. D Sravanan ,
3. Mrs. K Revathi
4. Mr. Shahenshah Syed

The Industrial Visit to RTPP, started at 6.15 AM by college bus and reached the plant by 11.30 AM. Total crew was divided into five batches with a size of 12 students under the guidance of each faculty member. The students along with faculty members visited the plant between 12 .00 PM and 2.00 PM. Sri P. Hari Babu, AEE/O&M/ Stage-II/RTPP elaborated the functioning mechanism of the Rayalaseema Thermal Power Project (RTPP) and strongly insisted the safety precautions that should be adhered during the visit.



About RTPP (Rayalaseema Thermal Power Project):

Rayalaseema Thermal Power Project is located at Yerraguntla (Md) in Kadapa District in Andhra Pradesh. The power plant is one of the coal-based power plants of APGENCO. The Thermal Power Station has a capacity of 1650 MW; 5 units of 210 MW each and 1 units of 600 MW as listed below.

Plant	Installed Capacity (MW)	Date of Commissioning	Status
I	2X210	1994	Commissioned
II	2X210	2007	Commissioned
III	1X210	2010	Commissioned
IV	1X600	2018	Commissioned

RTPP was developed under 3 stages namely stage I, II, and III. The station is performing well in the recent years by achieving high plant load factor. It stood first in country during 98–99, 2002–03, 2003–04 and second during 99–2000, 2001–02. The station has received Meritorious productivity awards for six consecutive years and Incentive award for seven consecutive years. BHEL commissioned stage IV unit 1x600MW in March 2018 leading to total installed capacity of RTPP to 1650MW.

Field Visit information:

During the visit to the Rayalaseema Thermal Power Project (RTPP), the students had the opportunity to explore various critical segments of the power plant, engaging with experts and observing the operational intricacies first-hand. The segments visited included:

- **Cooling Towers:** Understanding the cooling process vital for plant efficiency.
- **Unit Control Board (UCB):** Exploring the central control system managing the units.
- **Main Control Room (MCR):** Observing the nerve centre overseeing plant operations.
- **Turbine Floor:** Gaining insights into turbine functionality and power generation.
- **Switchyard:** Understanding the power distribution network.
- **Generator Transformer Yard:** Exploring the essential transformer units for power generation.
- **Boilers:** Examining the critical components for steam generation.
- **Bunkers:** Understanding storage areas for fuel.
- **Mills (pulverized coal):** Observing coal grinding and its role in the process.
- **Cooling Tower Pump House:** Understanding the pumping mechanisms for the cooling system.



Learning and Experience:

The visit offered an invaluable opportunity for students to delve into the internal functioning mechanisms of a power plant. By actively engaging and visualizing the practical aspects of each segment, they gained hands-on experience, supplementing their theoretical knowledge.

Specifically, students received detailed explanations on the stator and rotor design of generators manufactured by BHEL, enriching their understanding of these critical components in power generation.

Acknowledgments:

We express our sincere gratitude to the Management, Principal, Dean-Administration, Vice Principal (Academics and Administration), Associate Dean-IIIC, and our Head of the Department-EEE for their unwavering support and encouragement. Their continuous backing was instrumental in organizing and facilitating this insightful industrial visit, providing our students with a platform to bridge theoretical learning with practical exposure.