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**Report**  
**Industry Guest-Lecture**  
**on**  
**"Thermal Power Plant Engineering"**  
**Organised by**  
**Department of Electrical & Electronics Engineering**  
**Date: 14.12.2022**  
**Time: 3.00 PM to 4.00 PM**  
**Venue: Seminar Hall A**

**Organized in association with: Institution Innovation Council & ISTE Student Chapter**

**Submitted by: Ms. Revathy Gopinath, Assistant Professor, Dept. of EEE**

**Attendance: 61 participants**

The programme is started at 3:00 PM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person **Mr. D. Anbarasu, Assistant Director(Technical) – National Power Training Institute, Bangalore, INDIA** was introduced by Dr. A. V Pavan Kumar, H.O.D, EEE.

The resource person started the session by extending his hearty thanks to the participants, organising members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share his knowledge and experience in "Thermal Power Plant Engineering".

The topic the resource person covered is Thermal power plant Generation, Power plant Equipments, Power Plant Schemes, Power Plant Layout, Generator and Electrical system. The audience was made aware of the following through his presentation.

- Coal to electricity process
- Inputs & Outputs for 1000MW Power Station
- Coal transportation & coal handling plant
- Raw water processing
- Air & flew gas flow
- Feed water & steam flow
- Power station equipments – Turbine auxiliaries, generator auxiliaries
- Plant layout of 210 MW

The session was concluded followed by a vote of thanks, given by Dr. A V Pavan Kumar, H.O.D, Electrical and Electronics Engineering Department, MITS, Madanapalle.



# MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE (UGC-AUTONOMOUS)



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## Photos:

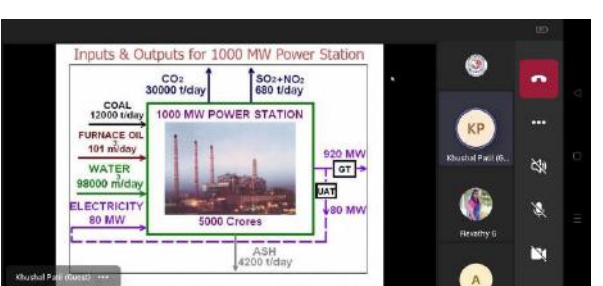
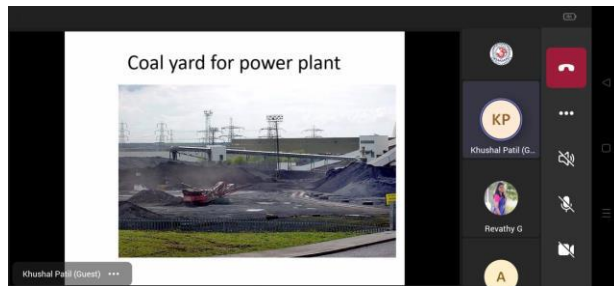
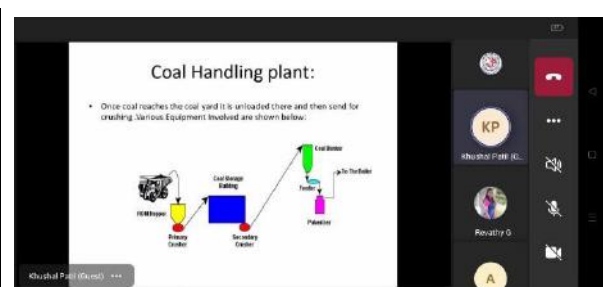
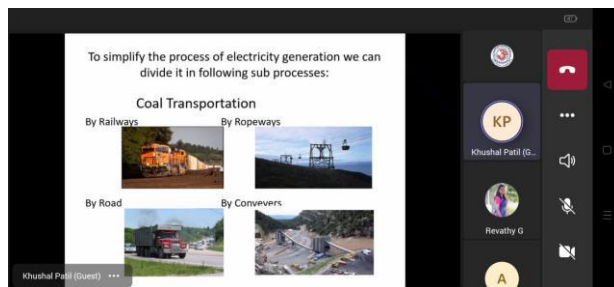
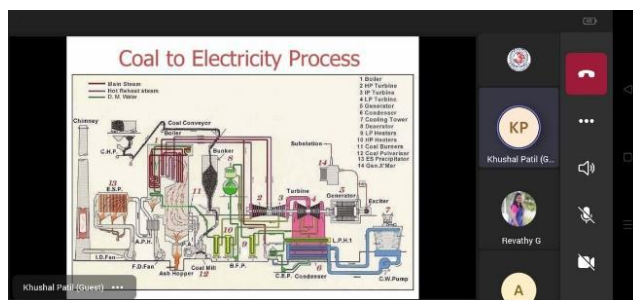
**Guest Lecture on**  
**"Thermal Power Plant Engineering"**  
In association with IIC and ISTE  
Organized by Department of Electrical & Electronics Engineering

**Resource Person**  
**Mr. D. Anbarasu**  
Asst. Director(Technical),  
National Power Training Institute,  
Bangalore

**Date**  
14/12/22  
**Time**  
3.00-4.00 PM

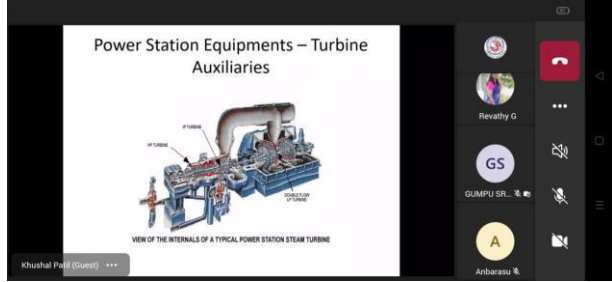
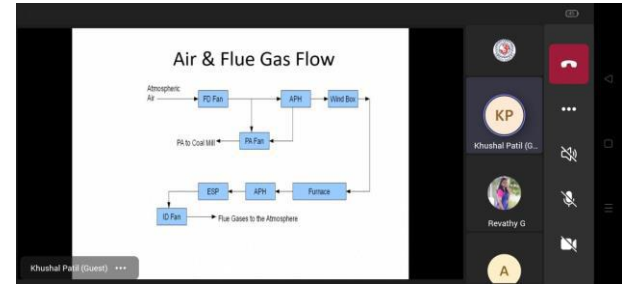
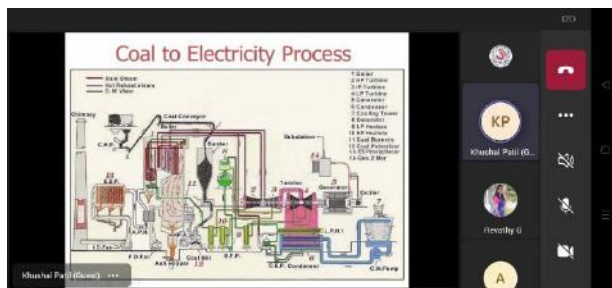
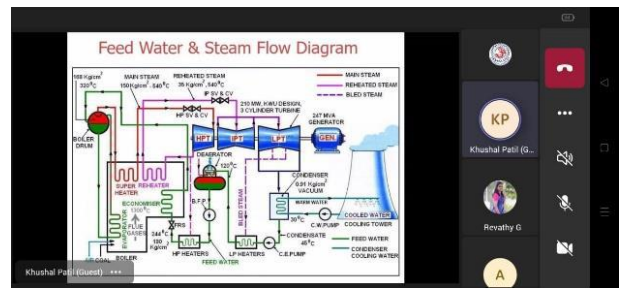
<b>Chief Patron</b> Dr. N. Vijaya Bhaskar Choudary Secretary & Correspondent	<b>Patron</b> Mrs. N. Keerthi Executive Director	<b>Co-Patron</b> Dr. C. Yuvaraj Principal
<b>Convener</b> Dr. A.V Pavan Kumar Professor, Hod EEE	<b>Co-ordinator</b> Revathy Gopinath (Assistant Professor, Department of EEE)	

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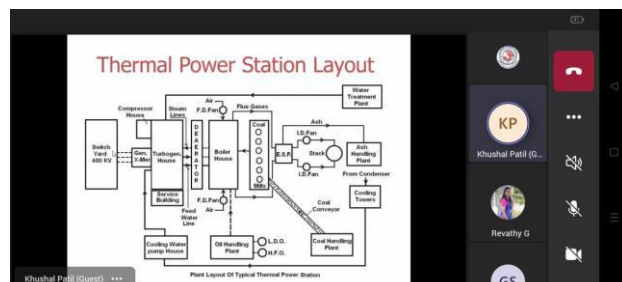


### 210 MW Generator Parameter

- Rated Power = 210 MW/247MVA P.f=0.85
- Rated Voltage = 15.75Kv
- Full load current= 9050 Amp
- Rated Frequency=50Hz
- Field Voltage Rated =310 Volts DC
- Rated Excitation Current=2600Amp DC

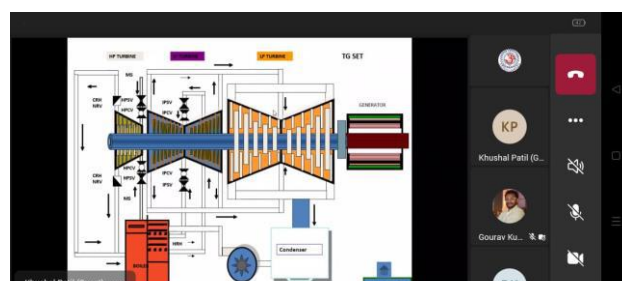


- ### Main Areas in Power Station
- Boiler Plant House
  - Turbine Generator House
  - Switch Yard
  - Coal Handling Plant
  - Oil Handling Plant
  - Water Handling Plant
  - Cooling Towers & Cooling Water Pump House
  - Ash Handling Plant



### History of AC Generators

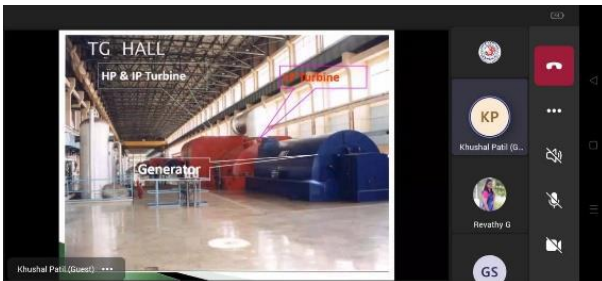
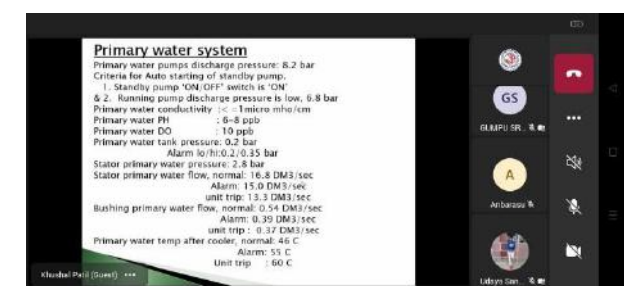
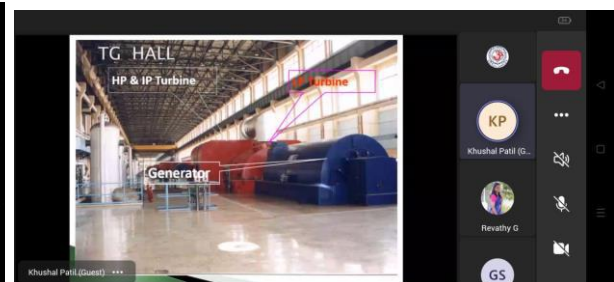
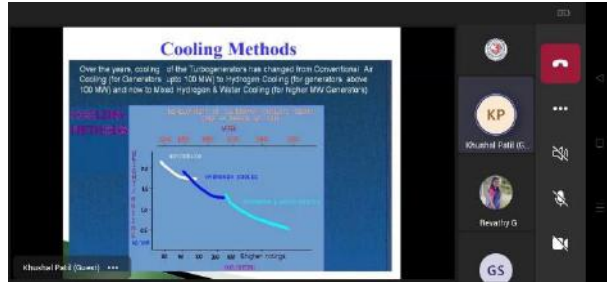
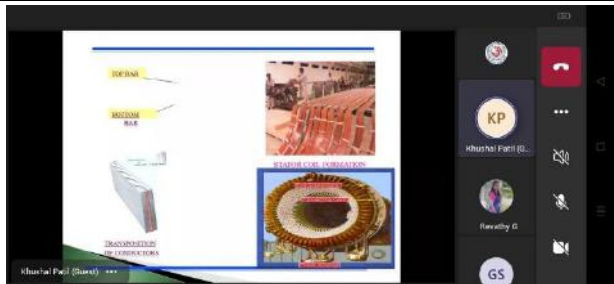
- 1831 - Generator Works on Principle of FARADAY'S ELECTROMAGNETIC INDUCTION, by Michael Faraday
- 1882 - Commercial AC Turbine Generator - Westinghouse, General Electric, & others (signed inventors)
- 1889 - First AC generator was manufactured in USA
- 1890 - First AC generator was manufactured in India
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- 2021 - First AC generator was manufactured in India
- 2022 - First AC generator was manufactured in India
- 2023 - First AC generator was manufactured in India
- 2024 - First AC generator was manufactured in India





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*Revathy*

Signature of the Coordinator

*Pavani*

Signature of HoD, EEE