SREE VIDYANIKETHAN ENGINEERING COLLEGE

(Autonomous)

Department of Mechanical Engineering

One Day Seminar
on
"CONTEMPORARY PRACTICES IN THERMAL POWER PLANT"

On 3rd August, 2019

A One-day Seminar titled "CONTEMPORARY PRACTICES IN THERMAL POWER PLANT" was organized by the department of Mechanical Engineering, Sree Vidyanikethan Engineering College, Tirupati on 3rd August 2019 at the Seminar Hall of Mechanical Engineering Department. The resource person was Mr. MATHEVAN PILLAI, Senior Engineer (Retd.,), Neyveli Lignite Corporation, Neyveli, Tamil Nadu.

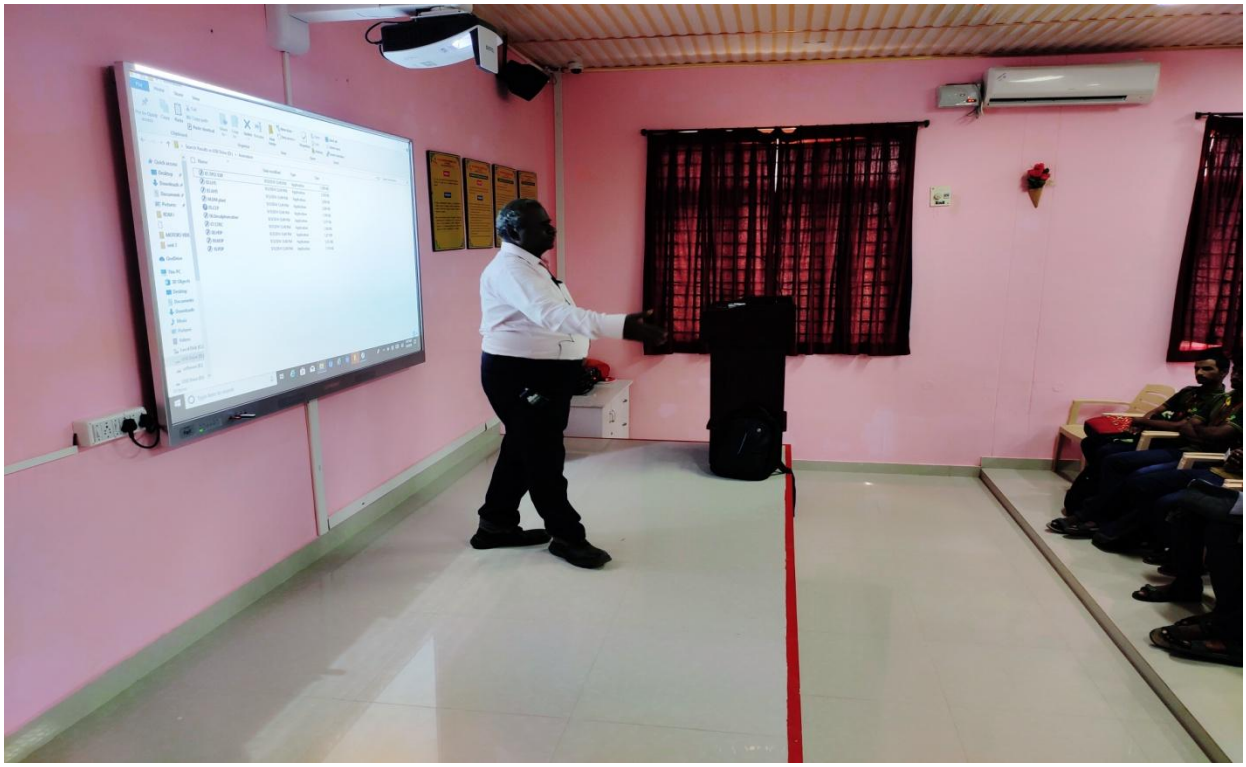
Felicitation of the Resource Person

Session: 1 Thermal Power Plant and its Need

Mr. MATHEVAN PILLAI, began his first session with the fundamentals of Thermal Power Plant and its Need. He elaborated the need of a thermal power plant is more in India when compared in other countries. Our energy needs (electricity needs) can be met from a variety of sources like Hydel, Thermal (fossil fuel and nuclear fuel plants), Wind power, Solar (PV) etc. Out of the above, Wind and Solar power are not reliable for continuous production of electricity. Sometimes wind may die away; and solar may not work in the night or on cloudy days. Hydel plants are seasonal - they depend on rivers, dams, rains etc. Thermal power plants are the most reliable - they can work round the clock, round the year (except for occasional downtime for maintenance). It is not therefore surprising that many countries use thermal power as the base to meet the energy demand and use the other modes of energy production to supplement the thermal units.

Mr. Mathevan Pillai delivering his first session

Session: 2 Pollution Control Techniques



In the second session**,** Mr. MATHEVAN PILLAI, explained the reasons for pollution formation when coal is used as fuel. He also discussed the varioius pollutants that generate from Thermal power plant. He also discussed the technologies available for missions control and to sustain the multi-pollutant emission regulatory requirements like: Selective Catalytic Reduction (SCR), Electrostatic Precipitators (ESP), Fabric Filters (FF), Flue Gas Desulfurization (FGD), wet ESP, Dry Sorbent Injection (DSI), and Mercury Control Methods (MCM).

Session: 3 Challenges in Thermal Power Plant

In the third session, Mr. MATHEVAN PILLAI, elucidated Challenges in Thermal Power Plants. He highlighted some important challenges faced by India like inefficient coal linkages leading to huge loss to the private generating companies, lower than expected growth of electricity demand, leading to reduced PLF of existing plants **and** financial stress to the generating companies. The non-performing assets are valued at 40–60 Billion USD. This is related to 60,000 to 65000 MW of energy generation capacity of the country.

Inefficient distribution of companies is leading to lack of initiatives to improve efficiency and bill collection and lack of spending on research and development of renewable and transmission technology. The money allotted for the research was used by the government of India to finance the transition of states to GST.

He enlightened the students regarding the opportunities available in the power sector especially in Thermal power plant after their degree.

The students of Mechanical Engineering were enriched with knowledge gained through interaction with Mr T.MADHAVERN PILLAI. His knowledge and experience made students appreciate the significance of POWER SECTOR as a career.