

KKR & KSR Institute of Technology and Sciences

Vinjanampadu, Guntur, Andhra Pradesh-522017

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Industrial visit to Solid waste treatment at Kondaveedu on 11/10/2022

Objective of the Industrial visit: The objective of the trip was to get to know the how the solid waste is used to generate the power by thermal technology of reverse reciprocating and forward reciprocating & more details in terms of the faculty's operation.

About field visit: On 11 October 2022, 70 students with 4 lectures and 1 lab technician went for a trip to management of Jindhal urban waste with an aim to visit the solid waste management and power generation technology. We arrived there at 11 AM. We planned to visit the plant and also know about how to generate the power by using solid waste.

Venue of the visit: Jindal Solid waste treatment plant

Survey No.933, 938, Kondaveedu,
Medikonduru Mandal,
Guntur district.
Andhra Pradesh – 5200006
INDIA.

Guided by: P.Rama krishna –Managing Director, Old time director

Faculty: A.Trisulapani – Assistant professor

A.Suri babu – Assistant professor

T.Neelima – Assistant professor

K.Sireesha – Assistant professor

Date & Time of visit: 11/10/2022 – 11.00 AM to 4.00 PM

Expenditure: By college buses and total expenditure 5,000/-

No of students participated: 70 no's

Benefits of the visit to students: We were guided by a trip by supervisor of jindhal urban waste management pvt-ltd. During the visit we jotted down some notes and questioning the supervisor about how the solidwaste is used to generate power the and the process.

They are Collecting the solid waste from 7 municipalities (vijayawada,Guntur,sattenapalli, Mangalagiri chilakaluripet Narasaraopet, tadepalli) by trucks at the quantity of 1000to 1200tones and stored in storage basin (14m depth from floor) and to remove the moisture content and they are mixing the solid waste by grabs crane. While storing the solid waste it may release the methane gas. The methane gas is used for burning purpose in furnace and they collect waste water from solid waste for treating purpose which is named as lachard. In furnace they burn the solid waste at 900C

temperature & to convert it into ash. In this process the ash is cooled by two condensers i.e. by air and by adding the water.

They used thermal technologies of reverse reciprocating and forward reciprocating. In that process they collect the steam from the cooling process with the pressure of 48 kg and the steam temperature is 400°C degrees. The steam is mixed with cool air and it converts into water. By using that water they generate the power by turbine principle. They generate 15 MW power but they export 13 MW and remaining power is used for to run the plant.

It can be concluded that the trip was successful and we believed that our objective was achieved. Our trip is ended about 4:00 PM. This trip to learn something new and beneficial for students.

Event photographs:





Promotion of the event in social media and website: