SREE VENKATESWARA COLLEGE OF ENGINEERING



(Approved by AICTE, New Delhi and Affiliated to Jawaharlal Nehru Technological University – Anantapur) GOLDEN NAGAR, NH5 BYPASS ROAD, NORTH RAJUPALEM, KODAVALURU (V&M), SPSR NELLORE

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DEPARTMENT OF HUMANTIES & SCIENCES ACADEMIC YEAR: 2022-2023 I B TECH I SEM REPORT ON INDUSTRIAL VISIT SOMASILA DAM & POWER STATION

Date: 17.10.2022

<u>Place of Visit:</u> 1 Name of the Activity/Event Industrial visit to: Somasila Dam and Power plant

2 Date of Activity/Event: 15-10-2022

3 Organized by/Name of the committee: Department of Humanities and Sciences

4 Place of Activity/event: Somasila, Nellore.

5 Type of activity/Event: Industrial Visit.

7 Activity/Event objectives:

1. To turn the Students efficient and to bring awareness on importance in usage of Somasila dam.

2. To improve the practical knowledge of the students.

8 Participation Students: 519

The Somasila dam is a dam constructed across the Penna River near Somasila, Nellore district, Andhra Pradesh, India. The reservoir impounded by the dam has a surface area of 212.28 km2 (52,456 acres) with live storage capacity of 1.994 km3 (1,616,562 acre·ft) or 75 tmcft. The reservoir can get water by gravity from the Srisailam reservoir located in Krishna basin. It is the biggest storage reservoir in Penna River basin and can store all the inflows from its catchment area in a normal year. This reservoir can also feed by gravity nearby 72 tmcft gross storage capacity Kandaleru reservoir. Somasila project under canal systems developed. One of the main canals is the Kavali Canal. ayacut of this canal is wet ayacut was

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25,000 acres and id ayacut was 50,000. Also developed the canal right and left sides unauthorized.



Parts of a Hydroelectric Plant Most conventional hydroelectric plant include four major components (see graphic below):

- 1. Dam. Raises the water level of the river to create falling water. Also controls the flow of water. The reservoir that is formed is, in effect, stored energy.
- 2. Turbine. The force of falling water pushing against the turbine's blades causes the turbine to spin. A water turbine is much like a windmill, except the energy is provided by falling water instead of wind. The turbine converts the kinetic energy of falling water into mechanical energy.
- 3. Generator. Connected to the turbine by shafts and possibly gears so when the turbine spins it causes the generator to spin also. Converts the mechanical energy from the turbine into electric energy. Generators in hydropower plants work just like the generators in other types of power plants.
- 4. Transmission lines. Conduct electricity from the hydropower plant to homes and business

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