



## DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

### EVENT REPORT

<b>Name of Event</b>	Industrial visit
<b>Date(s) of Event</b>	24-08-2024
<b>Type of Event</b>	Industrial visit at 2.5MW WIND FARM PROJECT NARASIMHAKONDA
<b>No of participants</b>	All II/IV and III/IV EEE students
<b>Organized Department</b>	Electrical and Electronics Engineering
<b>Reporter's Name and Contact Details</b>	Dr. D. RAJESH REDDY Assoc. Professor Department of EEE Narayana Engineering College, Gudur. A.P Ph: 9440390725 Email: rajeshreddy238@gmail.com
<b>Panelists</b>	Mrs. V. Swarna, Assoc. Professor

#### 1) Brief outline of key issues and challenges addressed in the event

Our main purpose for this visit is to be familiar with industrial environment and to get practical knowledge of electrical power generation through Renewable Energy Sources.

Students have got the knowledge of Electrical Power Generation, Transmission and Distribution. By this time, Students have an idea familiar with Wind Turbine, Wind Mill and its parts.

#### 2) Key messages, outcomes, recommendations

##### Key Points:-

##### ➤ How Electricity is Generate:

The wind direction rotates the wind turbine to face the wind. The energy in the wind (called kinetic energy) turns the turbine blades around the rotor (creating mechanical energy). The rotor connects to the main shaft, which rotate the generator available in generator housing. The electricity generated then travels down via large cables from the nacelle, through the tower, and into an underground cable. At wind farms, cables from different turbines take the generated electricity to a substation. A step-up transformer again increases the electrical supply. A transmission line connects the electrical output of the transformer at the substation to the electrical grid serving communities throughout the region.

- **Types of Generators Used:** (i) Single winding  
(It is run on 1000 rpm)  
(ii) Double Winding  
(It is run on 750 rpm)
- **Wind Mill Capacity:** Capacity of wind mill 2.5MW  
Height of the wind mill is 30 meter

### 3) Conclusions by the Panelists of the event

From this visit, we got the information and practical knowledge about Power Generation through wind mill, transmission and distribution of power. Same time, the Students got the knowledge about wind mill and wind turbine. They got the idea how electricity is generated through wind turbine and types of generator are using and their connection. Also came to notice that from the control panel how to take reading and how to manually stop wind mill. All students from II/IV and III/IV year, Semester-I Electrical & Electronics Engineering have attended and got the good knowledge.

We are especially thankful to respected **“Sri V. RAMALINGAIAH, District Manager, NREDCAP LTD Nellore division”** because they granted the permission for this Industrial Visit.

