

**Report on Industrial Visit to
Vikram Solar Power Plant (TTD 10MW Solar Power Plant)
Kosuvaripalle, AP
Department of Electrical & Electronics Engineering
11.03.2022 & 15.03.2022**



Submitted by: Dr Pratap Ranjan Mohanty, Associate Professor., Dept. of EEE

Organized in association with: **ISTE Student Chapter**

Attendance: 198 participants including students & faculty

The three Sections of B. Tech, II Year EEE branch were divided into two groups for the industrial visit. The visit for the students of Section A & C together was scheduled on Dt. 11.03.2022. And the students of Section B were visited the power plant separately on Dt. 15.03.2022.

Date : 11.03.2022 (Section A & C)

Faculty Visited:

1. Dr. M. Vijay,
2. Dr. Parth Sarathi Panigrahy,
3. Dr. Aurobinda Bag,
4. Dr. Debashish Pal,
5. Dr. Devnath Shah
6. Mr. N. Ramesh
7. Mr. S. Bharath Kumar,
8. Mr. P. Balamurali Krishna,
9. Mr. R Madhu
10. Mr. Reddy Prasad

A total of 119 number of students (from Section A & C) along with 09 faculties and 01 AAO reached Vikram Solar Power Plant, Kosuvaripalle, Chittoor, Andhra Pradesh at around 10. 00 AM. Mr. Y. Dinesh, Site Engineer, Vikram Solar Power Plant and two technical staff of the power plant explained the design and function of the solar power plant initially to the faculties. Then, the total number of students were divided into nine (09) group and each student group was guided by an individual faculty during the visit.

Mr. Y. Dinesh briefly said about the background of the power plant. Tirumala Tirupati Devasthanams (TTD) has established a 10 MW Solar Power Plant at Kosuvaripalli near Madanapalle, Chittoor, Andhra Pradesh on Build, Operate and Transfer (BOOT) basis through M/S. Vikram Solar Pvt. Ltd., Kolkata on payment of Rs. 4.49 per unit towards electrical energy generation for captive utilization of electrical energy to TTD 11 KV HT service connections.

The Solar plant was put into commercial operation w.e.f. 01.04.2017. This plant produces approximately 8 MW to 10 MW power to grid (on grid only). Each group of students along with the concerned faculty were visited the solar string & inverter section, 11 KV substation and the control room. The concerned faculty and the present technical staff of the power plant explained regarding the solar power generation, conversion & control and transportation of power to each group of students.

The visit was more interactive with effective learning and the students were made to understand the theoretical concepts involved in a solar power plant design and operation. The students returned to MIT, Madanapalle, Angal at 01.30 PM on the same day.



Date : 15.03.2022 (Section B)

Faculty Visited:

1. Dr. T. S. Balaji Damodhar,
2. Dr. V. B. Thurai Raaj,
3. Dr. Devnath Shah,
4. Mr. N. Ramesh,
5. Mr. B. Vijaya Kumar,
6. Mr. P. Balamurali Krishna,
7. Mr. Y. Ramanjaneyulu.

The Industrial visit was arranged for the students of B. Tech II-year Section B. A total of 68 number of students along with 07 faculties reached Vikram Solar Power Plant, Kosuvaripalle, Chittoor, Andhra Pradesh at around 10.00 AM. The Plant Engineer Mr. Y. Dinesh welcomed the faculty members and all the students.

The plant engineer along with his team members elaborated the main equipment that are installed in the solar farm. Initially, the students were split into seven groups along with the one faculty member and one technician. The explanations on the installation of solar strings employed with on-line grid tie inverter, input and output voltage levels of the solar system was explained to the students. As the next part, the students were brought near to the 480V/33KV Inverter transformer yard and described about the construction of the transformer. Finally, the descriptions about the SCADA and overall performance metrics were made by the Site Engineer Mr. Y. Dinesh. The Industrial visit was concluded and reached college by 1.20 PM.

Feedback: The participants were moreover passionate to know the working, operation of solar power plant and its future scope