ACS COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi and ISO 9001:2015)

Report On

"Industrial Visit to Solar Power Plant in Mandya"

The students of VI semester were taken to Solar Power Plant in Shivanasamudra, Mandya District for Industrial visit on 23.05.2022 that is on Monday as a part of Industry interaction to students along with four faculty members. The students assembled in the college at 8:30 am in their class. As the bus arrived at 9:00 am the students boarded the bus and started from college and reached Solar Power Plant in Mandya District at 12:30 pm.

Report on Industrial visit to 10MW and 5MW Solar Power Plant

Salient Features of the Solar Plant Installed in Mandya District

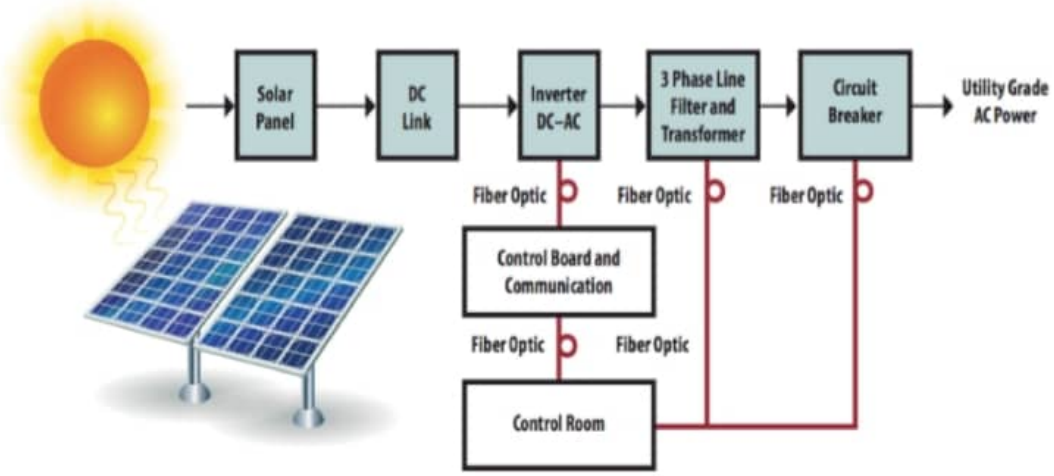
- Capacity: 10MW Grid Connected
- Total Cost: 61.5 crores (approx)
- Energy: 8.322 Mu/annum
- Technology: Solar PV Crystalline

- Evacuation System: Through 66KV dedicated line connecting 66KV Shiva MUSS.
- Project allotted by: NVVN under JNNSM Phase-2, Batch-1 scheme at a tariff of Rs 11.69/-
- Average Solar Insolation: 5.26KWh per sq.m. per day
- EPC Contractor: M/s. BHEL & KPCL
- Land acquired: 25 acres of Land in Shivanasamudram in Mandya district.
- Date of LOA: 24.05.2011
- Date of Commissioning: 25.06.2012

Finance

- This project is financed by KPCL from its internal resources.

BLOCK DIAGRAM OF SOLAR POWER PLANT



Installation Features

1 Module 285 watts

20 Modules in Series = 1 String

16 Strings 1 S M U

7 S M U 1 Inverter

- Each Module (panel) has a generation capacity of 285 watts, when 20 such modules are connected in series it forms one String.
- 16 Strings together is known as One Sting Monitoring Unit (SMU), the output of 7 such SMU's is given as input to one Inverter.
- One Inverter's output is 630kVA. There are two such Inverters.
- The output voltage of each Inverter is stepped up to 11kv using stepup transformer. Transformer capacity is 1600 kVA.
- The distribution voltage connecting to grid is at 66kV
- The complete process is observed & controlled in the control room using SCADA.

Industrial visit to solar power plant, at Shivanasamudra gave us an opportunity to correlate theory and difference, experience the generation, control & transmission of 10MW renewable energy and practical problems on site. The whole process was explained by the representative with detailed description of equipment's with their specification. Explanation was carried out in the control room.

PHOTOS OF INDUSTRIAL VISIT


GPS Map Camera
Chamarajanagar, Karnataka, India
Gaganachukki Falls Rd, Karnataka 571437, India
Lat 12.30102°
Long 77.163117°
23/05/22 12:53 PM
Google


GPS Map Camera
Mandya, KA, India
Malavalli, Mandya, 571417, KA, India
Lat 12.301242, Long 77.163328
05/23/2022 12:52 PM

DETAILS OF THE EVENT

1. TITLE OF THE EVENT - INDUSTRIAL VISIT TO SOLAR POWER PLANT
2. YEAR / ODD /EVEN SEMESTER - 2022/EVEN
3. DAY AND DATE - 23.05.2022 Monday
4. VENUE - Solar Power Plant in Shivanasamudra, Mandya District
8. ORGANIZED BY – CSE
9. CO-ORDINATED BY - Dr. V Marreswari, Professor & HOD of CSE Dept
10. FACULTY INCHARGE – Ms. Lakshmi Priya P, Ms. Ganga, Mr. Panchaxari Mamdapur, Mr. Pillai
11. PARTICIPANTS - III Year CSE Students
12. BRIEF SUMMARY OF THE EVENT - Report Enclosed
13. PHOTOS - Photos Enclosed.

PRINCIPAL **HOD (CSE Dept)**

DR. M S MURALI Dr. V Mareeswari