

# Industrial Visit at Hydroelectric Power Plant, Karanjwan

## Visit Plan:

- ◆ Venue: Karanjwan dam, Kadwanagar, Taluka -Dindori, District - Nashik
- ◆ Event Time: 8:30 a.m. - 3:00 p.m.
- ◆ Event Objective: To study the Hydropower Plant

- ❖ At Sandip University, SOET, Mechanical Department S.A.M.E (Students Association of Mechanical Engineering) conducts many events in every week. This time SAME has organized an industrial visit to Hydraulic Power Plant at Karanjwan, Dindori, Nashik on November 30<sup>th</sup>, 2022. i.e., on Wednesday.
- ❖ All, the students gathered at Y-Building (S.O.E.T.). After gathering of students Associate Dean SOET Prof. Dr. Prakash G. Burade and Head of the Department (Mechanical Engineering) Dr. Vishal N. Sulakhe gave us Instructions and some prior knowledge about the visit.  
Then we move to Karanjwan Dam with the help of college bus.
- ❖ Karanjwan Dam, is an earth fill dam on Kadwa river near Dindori in state of Maharashtra in India. Specifications of Karanjwan dam include the height of the dam above lowest foundation is 39.31 m (129.0 ft) while the length is 2,483 m (8,146 ft). The volume content is 1,960 km<sup>3</sup> (470 cu mi) and gross storage capacity is 175,580.00 km<sup>3</sup> (42,123.88 cu mi).
- ❖ The purpose of construction of this dam is for mainly two reasons namely:
  - Electricity generation
  - Irrigation

**Rules & Regulations:**

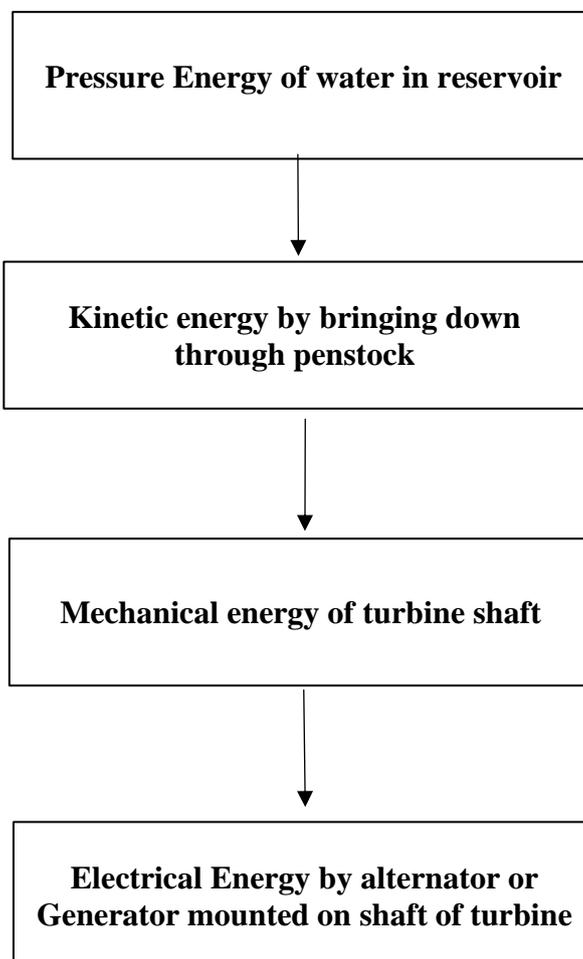
- Everyone has to submit the undertaking form provided by college.
- Follow the rules given by instructor of the hydroelectric power plant.

**Visited Places:**

- Hydroelectric Power Plant
- Dam Reservoir
- Penstock
- Generator Floor
- Control Unit
- Turbine Buckets
- Tail race

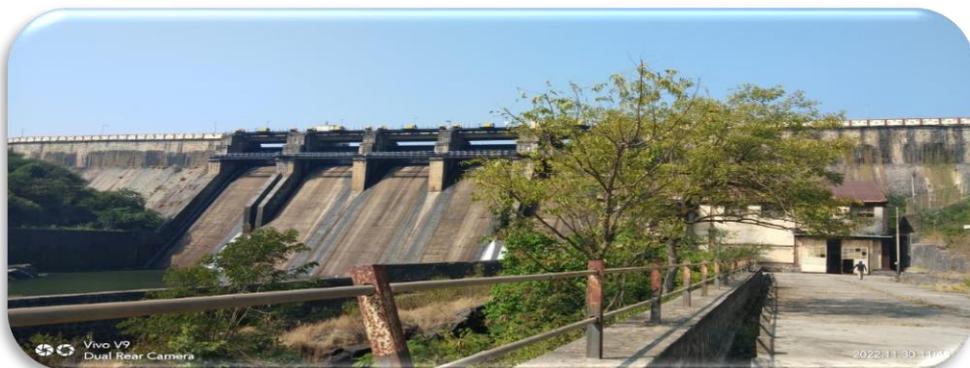
**Event Outcomes:**

- After visiting the Karanjwan Dam, students are able to understand the various components & working of Hydropower Plant.
- Students came to know how pressure energy of water in reservoir is converted into Electrical energy. Process of converting the pressure energy to electrical energy is as follow:



- ❖ After generation of electricity, it is being stepped up with the help of Transformer and distributed as per requirement.

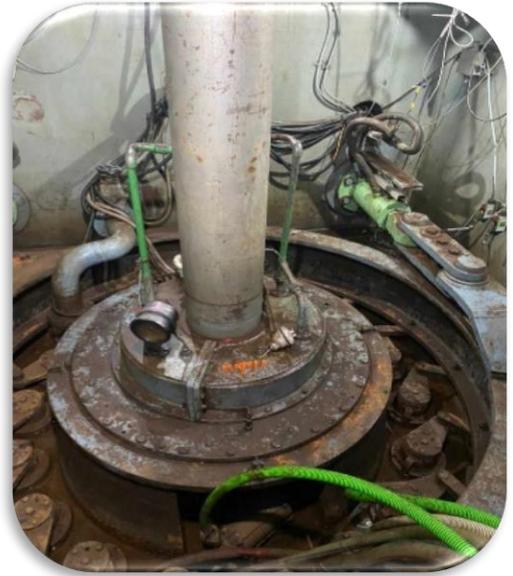
## Photos of visit



## Photos of Powerplant components



Penstock



Turbine Buckets



Generator



Control Unit



Tail race



Reservoir