	Akhil Bharatiya Maratha Shikshan Parishad's **Anantrao Pawar College of Engineering & Research**	
	Record No.: ACA/D/008B **Revision: 00**	**DoI: 21/01/2019**

Industrial Visit Report

1. Visit Place (Address) : Dhom Hydroelectric Power Station, Velang and Mapro Food Park, Shendurjane, Wai-Surur Rd, Wai
2. Visit Date: 17/01/2023 and 18/01/2023
3. Course and Year :- First Year Engineering
4. Contact Person Details: C. S. Jagtap, Executive Engineer
5. Organized By:- Mechanical Engineering Department
6. Industrial Visit under subject: Systems in Mechanical Engineering
7. Brief Report:-

A B M.S.P.'s Anantrao Pawar College of Engineering & Research, Parvati Pune organized Industrial Visit to **'Dhom Hydroelectric Power station and Mapro Food Park'** on 17th and 18th January 2023 for First Year students (A.Y. 2022-23) under the subject reference 'Systems in Mechanical Engineering'. The Department of First-Year Engineering and the Department of Mechanical Engineering have jointly taken efforts to make this industrial visit successful.

Mrs. C. S. Jagtap (Executive Engineering) and Mr. Prakash Mandre guided us throughout the Dhom Dam and Hydroelectric Power generation station. Mr. Satish Pawar (Co-ordinator) guided us in Mapro Food Park through various processes like Chocolate making, Jam making, Syrup making, and packaging unit. This dam is constructed across the river Krishna. Krishna River is one of the longest rivers in central southern India, about 1,300 kilometers (810 mi). It flows through the states of Maharashtra, Karnataka, and Andhra Pradesh.

PURPOSE OF VISIT:

Industrial visit is considered one of the tactical methods of teaching. It lets students know things practically through interaction, working methods, and employment practices. The main purpose of the visit is to give clear detailed knowledge of power plants and understand the working of different types of components in a hydroelectric power station. Further, students will also understand the various processes in Mapro Food Park as it produces a lot of products such as jams, syrups, jelly chocolates, and luxury chocolates.

SPECIFICATION OF DHOM DAM AND HYDROELECTRIC POWER STATION:

- The owner(s): Government of Maharashtra, India
- Type : Earth-fill Gravity
- Height : 65.10 m
- Length : 1211 m
- Volume : 6,335 km^3 (1,520 cu mi)
- Impounds : Krishna river

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- Reservoir Capacity : 382.32 mm^3
- Catchment area : 217.56 Sq. Km.
- Canal Capacity : 27.01 Cumecs (m^3 /s)
- Power Point Capacity: 2 MW (1MW x 2 Nos.)
- Generating Type : Kaplan Turbine (2 nos.)

FUNCTIONAL SERVICES OF DHOM DAM:

• Irrigation - The construction of this dam was started in 1976. The major purpose of this dam is the supply water to agriculture, industries, and drinking. Water supply is majorly done for Wai, Phaltan, Khandala, Bhor, Panchgani , Mahabaleshwar, and the surrounding villages on the bank of the dam. This dam supplies water to the agricultural land of the Wai, Koregaon, Satara, Javli, and Khandala talukas. Completed in 1982, it is one of the largest civil engineering projects commissioned after Indian independence. The Dhom electricity project is run by the Maharashtra State Electricity Board and has a storage capacity of 14 T.M.C.

• Hydroelectricity - The Dhom generates electricity of 4 MW from the basement electricity house.

Our students also visited the Hydroelectricity power station which generates electricity of 4 MG from the basement electricity house. Detailed information was given about the turbine and how electricity is generated through turbines by Mr. Kainagde Sir. A letter of Thanks with a flower bouquet was given by Prof. Dr. Gayatri Kamble to felicitate Mr. Kainagde Sir.

The dam creates a height from which water flows. A pipe (penstock) carries the water from the reservoir to the turbine. The fast-moving water pushes the turbine blades, something like a pinwheel in the wind. The water force on the turbine blades turns the rotor, the moving part of the electric generator. Once the electricity is produced, it must be delivered to where it is needed. (Homes, Schools, Offices, Factories). Dams are often in remote locations and power must be transmitted over some distance to its users. Vast networks of transmission lines and facilities are used to bring electricity to us in a form we can use. All the electricity made at a power plant comes first through transformers which raise the voltage so it can travel long distances through powerlines.

Mapro Food Park: It is the main fruit processing unit of Mapro Foods Private Ltd. It covers an area of over 50000sq meters and houses 8 production units, frozen food storage, and associated utilities. The main raw product of these processes is strawberry. Strawberry Jams and strawberry syrups are the most famous products of Mapro Food Park. The manufacturing operations are largely run on solar-generated electricity during daytime hours, with a peak solar generation capacity of over 4500 kWh per day.

MANUFACTURING PROCESS IN MAPRO FOOD PARK:

• **Inspection** - When the fruit arrives at the plant, it is inspected for quality, using color, ripeness, and taste as guides. Fruit that passes inspection is loaded into a funnel-shaped hopper that carries the fruit into pipes for cleaning and crushing.

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Name of the staff who attended the visit -

1. Prof. Dr. Balaji Selukar
2. Prof. Dr. Gayatri Kamble
3. Prof. Sampada Ahirrao
4. Prof. Snehal Darekar
5. Prof. Shubham Gapchup
6. Prof. Sadashiv Tavashi
7. Prof. Amol Atpadkar

Note: **The schedule of Two day's Industrial visit is attached to the Industrial report at last**

Dhom Hydroelectric Power Station (Date – 17.01.2023) Div. A and Div. D

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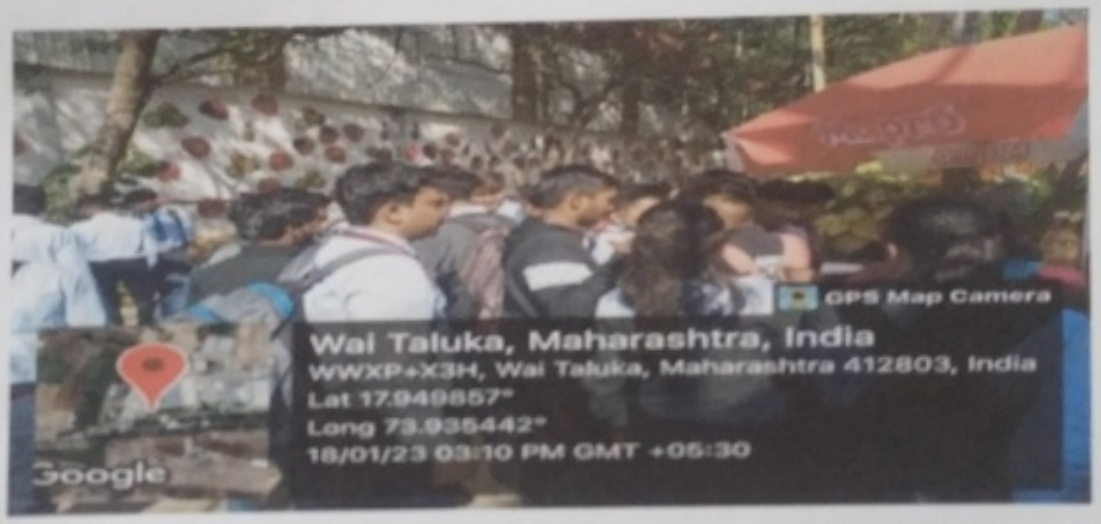
Industrial Visit Report

Dhom Dam (Date – 18/01/2023) Div C



Mapro Food Park (Date – 18/01/2023)

Date:

Visit the Incharge | Head of the Department | Prificipal