



BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT
YELAHANKA - BANGALORE - 64
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Activity Report

Activity Title	Industrial Visit
Title	Hydro-Electric power plant visit
Brief Description	Outcome Based Education (OBE) is a method of teaching that emphasises what students can actually do after they are trained. Decisions on teaching and learning are made based on how best to facilitate the desired outcome which in turns leads to planning process that is different from traditional educational planning. In OBE, the desired outcome is first identified before the curriculum is created to support the intended outcome. Department of EEE, has made mandatory to organize industrial visits to all semesters for the better visualization of core subjects. This also facilitates "see and learn" kind of objective.
Intended Students	5 th Semester.
Prepared by	Mr. Ozwin Dominic Dsouza
Date	24-09-2016

Executive Summary

" Industrial Visit to Sharavathi Hydro-electric Power Plant "

Date: 24th September 2016

Venue: Sharavathi Power house, Shivmogga

Audience: 5th SEMEEE

Speaker: Mr. Manjunatha Babu P, Mr. Ozwin Dsouza, Mrs. Shilpa G, Mr. Babu Naik G

Introduction:

Originating at a height of 730m near Ambuthirtha, in Shimoga district, the Sharavathi river flows in a north-west direction. In its long, 132-km journey, the Sharavathi is joined by several tributaries. After a stretch of 80 km along its course, the river drops down a steep mountain face of 293m – a visually delightful spectacle known as the Jog Falls. From this breathtaking leap, the river continues its journey till it flows into the Arabian Sea near Honnavar.

The Sharavathi Hydro Electric Project is today the backbone of Karnataka's power generating arsenal. The Sharavathi Generating Station with its 10 Units has an installed capacity of 1035 MW and the Linganamakki Dam Powerhouse with 2 units has an installed capacity of 55 MW. To further tap the potential of the Sharavathi river, KPCL has installed at the Gerusoppa Dam Project, four generating Units of 60 MW each, totalling to 240 MW.

The unique feature of the Sharavathi Project is the establishment of 1035 MW resource under one roof, with an annual yield of 5000 MU. The project has equipment from US, Canada, France, Japan and



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other specified markets. The generating units have been recently renovated and upgraded.

The KPCL blueprint identifies Sharavathi as its “Master Station” – a headpoint that will control all peripheral stations through a nodal monitoring system. The prime objective here is to optimize power generation through a systematic integration of several reservoirs and water conductor systems.

The learning objectives of the industrial visit are:

1. Recognise the process units – Water head, Intake conduits, tail race, surge tank, draft tube etc.
2. Identify the input and output for different processes.
3. Experience the importance of working safely.
4. Understand the concept of thermal energy/hydel conversion & estimate overall efficiency of power plant.
5. Understand how does the product of the plant interfaced to the world.
6. Understand the impact of engineering solution to the societal benefits.

Activity Outcome

AO1	Understand reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues
AO2	Understand the impact of the professional engineering solutions in societal and environmental contexts.
AO3	Function effectively as an individual, and as a member or leader in diverse teams.
AO4	Apply effective communication skills to comprehend and write effective reports of the visit.

AOs and POs Mapping:

AOs/POs	PO6 (The engineer and society)	PO7 (Environment and sustainability)	PO9 (Individual and team work)	PO10 (Communication)
AO1	2			
AO2		2		
AO3			2	
AO4				2
PSO:1	Analyze and Design Electrical Power Systems.			

- AO1 and AO2 are framed by keeping the industrial visit in mind. These AO’s are implemented by physically visiting the plant and interacting with the engineers at the power plant.
- AO3 and AO 4 are realised by involving the students in planning and execution of Industrial visit by putting them in the following groups,
Planning group: Takes care of documentation part of the visit in consultation with the faculty.



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Transportation Group: Takes care of identification of mode of transport, by selecting appropriate transport agency.

Finance group: Plan and raise the necessary budgetary requirements for the visit. This committee also sets the possible per head tour cost.

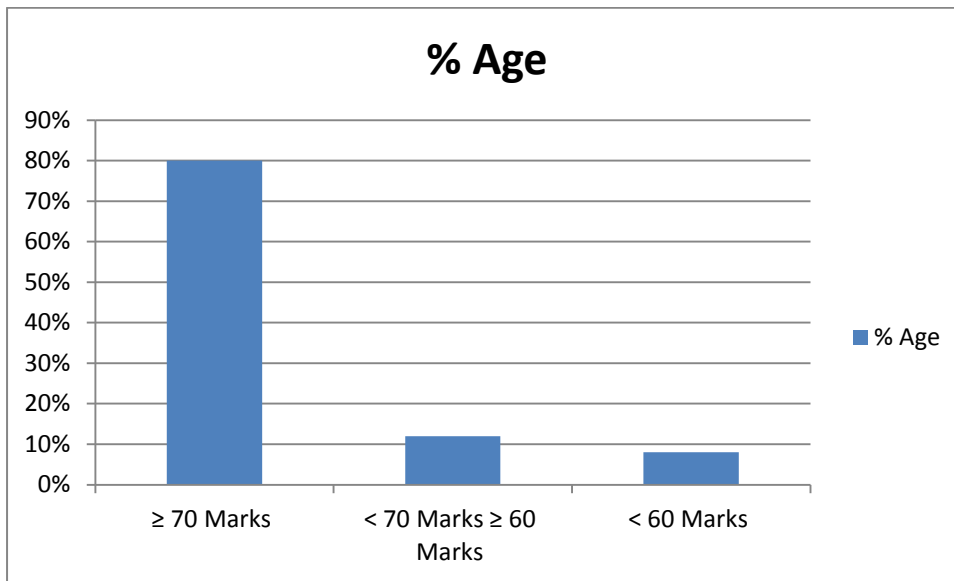
Hospitality group: Takes care of refreshment along the journey.

Impact Analysis:

Grade:1	More than 50% of students scores 60% of marks
Grade:2	More than 60% of students scores 60% of marks
Grade:3	More than 70% of students scores 60% of marks

Total number of students attended the visit: 52

More than 70% of students scores 60% of marks: 42



Staff Coordinators

HOD, EEE Dept.