

MES's Pillai College of Engineering, New Panvel

**A REPORT ON
PROJECT BASED LEARNING (PBL)**

**Academic Year 2017-2018 (Semester V)
Third Year Undergraduate Students of**

IT Engineering Department

Objective—To enable the students to apply concepts of the present semester subjects (including those of previous semesters) in the form of a design project based on certain application. It is hoped that it shall eventually lead to a better learning experience as opposed to textbook learning. Separate topics are assigned to all students in groups (maximum 4-6 students per group) of the same year to enable healthy competition among the different teams. The students work in groups and assign and distribute various aspects of work so as to realize the project based on a timeline of about 2 to 3 months. Queries and doubts are clarified by interactions with the PBL coordinators and subject experts. Student groups submit the PBL report during their demonstrations on a specified date in front of the faculty members.

Judges for the PBL Demonstrations

All Computer and IT Engineering Faculty of the concerned class.

PBL Coordinators

Division A	Prof. Sujit Tilak
Division B	Prof. Amol Kharat

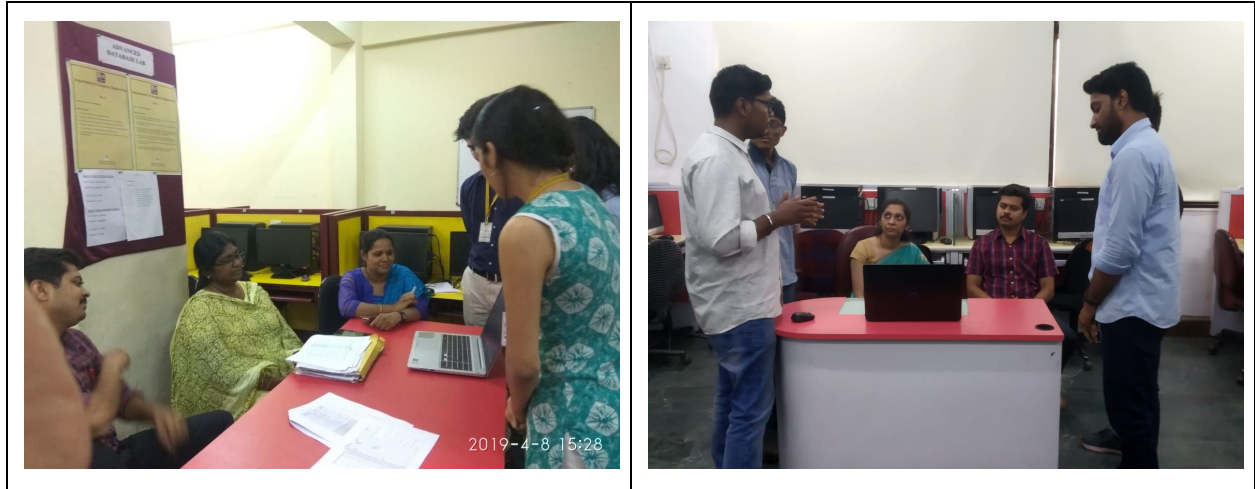
PBL Topics:

Sn	Subjects Covered	PBL Title / Idea offered	Description
1	MES, ADBMS, OS	PCE Echo	PCE Echo is a hands-free speaker you control with your voice using Arduino kit and microphone. Echo connects to the Voice Service to answer questions (predefined set) related to PCE. All you have to do is ask.
2	MES	Wireless Metal Detector Robot	In this project we develop a robot, which can sense the metals ahead of it on its path. In this project robot is controlled wirelessly using RF technology. A metal detector is interfaced to robot that alerts the user when there is a suspected land mines metal ahead. At transmitter end 4 push buttons are used to control the movement of the robot. For each push button a separate command is sent to the receiver to control robot directions. If any suspected metal is detected, the robot stops there and gives the buzzer.
3	MES,AD BMS, CGVR	Digital Temperature Sensor	The main principle of this circuit is to display the digital temperature value. These are mainly used in environmental applications. Display the output graphically
4	ADBMS, CGVR, OST, OS	App for online exam and result	To conduct online tests and produce statistic about the result graphically, there will be diff privileges for diff set of users, test questions and marks can be set online, the test will be objective type in which students will select correct answer from given options

5	ADBMS, CGVR, OST, OS	Engineering College Automation and Scheduling System	This project uses a web application concept to facilitate the departmental system in educational institutes. It uses the most reliable way of uniquely identifying students through website. Such type of web application is very useful in school as well as in college for daily attendance. Through this web application, we can keep a systematic record of students details, mark sheet, attendance and defaulters list. This project enables the easy way of maintaining class attendance with fewer efforts. The system also generates a brief report of attendance from the database according to subject-wise or date-wise as required. A defaulter list can be generated through system. Staff and HOD has the option to take a print of the reports and defaulter list thus generated. Hence, this project introduces a manageable and systematic approach of maintaining student and staff records.
6	ADBMS, CGVR, OST, OS	Android Customer Relationship Management System	Customer relationship management (CRM) is a system for managing a company's interactions with current and future customers. It often involves using technology to organize, automate, and synchronize sales. Company employee must keep track of current and future customers to synchronize sales. Manually it is not possible for the employee to keep records of all the leads. Customer Relationship Management System helps to keep track of number of leads converted by the employee. This System helps to manage sales. This system is a combination of both .Net and android technology.
7	ADBMS, CGVR, MES	Arduino based temperature monitor	To monitor the temperature of the room.
8	ADBMS, CGVR, MES	Arduino based water level indicator	To indicate the water level as low and high.

9	ADBMS, CGVR, MES	Arduino based soil moisture sensor	To monitor the soil moisture
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Photos:



Winners list:

Division B		
Group	Topic	Name
1	Arduino based water level detector	Saylee Pawar
		Kritika Shah
		Aditi Sharma
		Apurva Patil
2	Engineering college Automation And Scheduling System	Mohit Rai
		Sumod Menon
		Riya Sawant
		Sudhanshu Singh
3	Arduino based temperature monitor	Devbrat Singh
		Gourav Prajapati
		Divyesh Rajput
		Viddhi Rajput
4	App for online exam and result	Shivam Upadhyay
		Yash Singh
		Rutuja sawant
		Manali Thombare
5	Arduino Based Water Level Indicator	Priya Rajput
		Birjis Patel
		Laxmi T
		Kaustubh Vaidya
		Neha Sathe
		Ashutosh Shinde
		Simran singh
		Shrutika Deokar

Photos of Certificate Distribution: