

MES's Pillai College of Engineering, New Panvel

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

**Academic Year 2016-2017 (Semester IV)  
Second 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. Charumathi K S
Division B	Prof. Suresh Babu

## PBL Topics:

Sn	Subjects involved	PBL Topics offered
1	Web Technology + math + ITC	A secure web application where student pass or fail probability will be displayed
2	Web Technology + Automata	A web application where student category will be classified on using finite state automata
3	Web Technology + ITC	A web application with login functionality where user name and password are hashed using MD5 SHA
4	Web technology + CN + ITC + COA	A web application which will display shortest path between two location in PCE college(Dijkstra's Algorithm - CN, Authentication -ITC, History of Routes(Cache Memory)-COA, Web Technology - Front and Back End)
5	Web technology + CN + ITC + COA	A web application for simulating selective repeat protocol using applet program .The SR error recovery operation will be observed through the simulation of a sender-receiver data transaction, and its performance will be evaluated by its protocol throughput and its rate of data delivery.
6	AT + CN + COA + WT	Design a Turing machine using java (Using Applet), to implement TCP Finite State Machine operations on TM.
10	WT, CN	Web Server monitoring: Monitor TCP traffic (Incoming TCP Syn requests, TCP reset connections, TCP established connections, TCP half open connections), specific application requests, HTTP Get requests, Server bandwidth, Port status.
11	WT, CN	Video conferencing with multicast support.
12	WT, CN	TCP/IP packet controlling monitor

13	WT, COA	Implementing the 5 stage pipelined architecture of MIPS/ARM 32/64 bit processor
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**Photos :**

