**PROJECT THEMES AND TENTATIVE TITLES**

**1. Project-1.**

a. Tentative Project Title. MIST Automated Attendance System.

b. Project Theme. Attendance is not only track also a regulation and scope of learning especially for engineering students. As a Military and Engineering institution proper attendance system is important. Current system has some loophole which helps students with proxy system, late coming and skipping class. So we are presenting a attendance system with biometric system so that class attendance is tracked properly. Here we have kept several options for the concern and these are:

(1) Fingerprint reading. Every student and teacher has to enter the class by scanning fingerprint which is in the entrance. The scanning is necessary even he/she went out during the class. The staff needn’t to scan their fingerprint. In second door there will be another fingerprint reader. If a student is going out during the class it is also be tracked by it.

(2) LDR Sensor. LDR sensors are at both doors to identify the entry after scanning fingerprint at entrance and also to determine the departure without scanning at the behind gate. If one don’t enter within 5 second of scanning his/her fingerprint, the attendance will count as absent.

(3) Door locking system. It is the secondary step of project. To ensure highest secure system the backdoor need to be locked unless someone put the finger in the scanner. After the primary step is all done we will consider this system. A DC motor can be used to do this job.

(4) Website. As the course offers integration between hardware and software we are designing a web platform for visibility of the attendance, routine, information about eligibility and fine. There are three different type of dashboard based on users- student, teacher or admin. An online application system for leave is also implemented for reducing the trouble of both students and teachers.

(5) Subsystems.

(a) Detection elements (sensors).

(b) Power distribution.

c. Objective. Objectives to be achieved from proposed research-based project:

(1) To ensure 100% secure attendance by biometrics technology.

(2) To make it easy for both students and teachers to know about their attendance.

(3) To reduce late coming tendency.

(4) To reduce the trouble of manual application system for leave.

(5) To reduce wastage of time during manual roll calling system.

d. Students.

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