**MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY**

**Department of Computer Science and Engineering**

**Idea Proposal of IDP**

**============================**

This is an application form for the approval of Idea proposal of IDP by the Course Teachers. All the criteria which are applicable from the following list must be mentioned and filled in properly.

**Date**: 17/07/19

1. **Group No: 01**

2. **Section:** A **Session**: 2018-19

3. **Program: Computer Science & Engineering [CSE-17]**

4. **Tentative Title**: (**MIST AUTOMATED ATTENDANCE SYSTEM**)

5. **Background and Present State of the Problem**:

1. In most of the institutes student attendance is taken by the instructor him self , which is time consuming & also there is always a chance of tempering with this method. So , with this system we can not ensure 100% reliability.

2. In other places there is a system developed by RFID tag implanted in their ID card, which is also not proper solution as any one can carry other’s ID card & cast his presence.

6. **Objectives with Specific Aims and Possible Outcome**:

1. We will develop a system which will include human interaction, through which we can identify each students with their finger prints.

2. This system will ensure 100% secure attendance.

3. We will be able to know which class is going on in a specific class room through our app.

4. Live students count can also be observed through our app.

5. Which instructor is currently in a specific class, can also be monitored remotely.

6. We will be able to keep track about the time percentage of a particular student on a particular period he/she was physically present.

7. It will be fully automated no overhead is needed.

7. **Outline of Methodology/Experimental Design**:

1. There will be a fingerprint sensor outside & inside the class room, programmed with a Arduino/Raspberry Pi.

2. Students have to scan their finger prints before entering the class room.

3. As soon as our system detects a fingerprint it will send this to our database [firebase].

4. Than we will fetch this information from the database with our app & display it in live mode.

5. Before entering the class room instructors also have to scan their fingerprints, through which we can determine who is taking the class & which subject is going on.

8. **Please select the covered domain of your project (At least 04 or you can add any other domain(s) that is not included in the following list)**

|  |  |
| --- | --- |
| Theoretical CS and Algorithms  Networking  Database and Data Mining  Cloud Computing and Big Data  AI and Robotics  Digital Image processing | Information Security  Computer Vision  Pattern Recognition  Internet of Things (IoT)  Human Computer Interactions (HCI) |

9. **References**:

# Paper title:

# Design and development of portable classroom attendance system based on Arduino and fingerprint biometric

# Authors:

# [Nur Izzati Zainal](https://ieeexplore.ieee.org/author/37085544193)

# [Khairul Azami Sidek](https://ieeexplore.ieee.org/author/37846861000)

# [Teddy Surya Gunawan](https://ieeexplore.ieee.org/author/37279797300)

# Hasmah Manser

# [Mira Kartiwi](https://ieeexplore.ieee.org/author/37944888900)

# University: University Malaysia, Kuala Lumpur, Malaysia

**Year of Publication:** 17-18 Nov. 2014

**Basic working principle of finger print sensors:**

[<https://www.androidauthority.com/how-fingerprint-scanners-work-670934/>]

10. **Cost Estimate**: (Breakdown can be provided in separate sheet if necessary)

|  |  |  |
| --- | --- | --- |
| **Ser No** | **Items** | **Cost (Taka)** |
| 1 | Cost of Equipment (breakdown needed) | 10000/- |
| 2 | Field works (if applicable) | NO |
| 3 | Conveyance / Data Collection (with breakdown) | NO |
| 4 | Typing, Drafting, Binding and Paper etc. | 500/- |
| **Total Amount** | | 10500/- |

**Note: Students can add any external criteria if they want to.**

**11.Market Analysis:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name | F1:  Giving attendance by scanning fingerprint | F2:  After each class attendance will be updated on database | F3:  Collegiate and Non-collegiate for a course will be generated for each student | F4: Sending SMS to the parent for following missed class | F5:  Both app and web application |
| SchoolPass | ✓ | ✓ |  | ✓ | ✓ |
| TeacherKit |  | ✓ |  | ✓ |  |
| MySchool |  | ✓ |  | ✓ | ✓ |
| Jolly Technologies | ✓ | ✓ |  | ✓ |  |
| Top Hat |  | ✓ |  |  |  |
| Our Project | ✓ | ✓ | ✓ | ✓ | ✓ |

**Signature of the group members**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Serial No** | **Student ID** | **Name** | **Email** | **Signature** |
| 01 | 201714013 | Zobayer Ajmir |  |  |
| 02 | 201714023 | Farzana Faruk Jhumu |  |  |
| 03 | 201724027 | Masrur Hasan Mahin |  |  |
| 04 | 201714030 | Md. Ariful Islam Tarek |  |  |
| 05 | 201714043 | Nafiz Imtiaz Khan |  |  |
| 06 | 201714059 | Sumaiya Nuha Mustafina |  |  |

………………………………..

Signature of the Course Teachers