

IIIT Technocrats

TechnoCreating India 

Abstract for SIH 2020 Grand Finale

Organisation : AICTE-MIC (Open Innovation)

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Nodal Center: MLR Institute of Technology

Team Name: IIIT Technocrats

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Smart Attendance Manager by IIIT Technocrats

It all Started with an idea to revolutionise the conventional system of attendance taking.

As first step in developing any utility is finding what's wrong in the present. This is one of the biggest problem and a major hurdle in our education system that we are not able to ensure the presence of students in the classroom in an effective way. A student sitting in classroom will definitely learn something even if he is not interested to do so, whereas student who don't even attend the lectures won't even understand a bit. More over there is lot of time consumption in roll calls and attendance tabulations. Smart Attendance Manager or SAM is the utility developed by IIIT Technocrats that will solve all the aforementioned problems in one go using mass face recognition and a mobile application developed for android and iOS that's having numerous features which makes this utility one of a kind.

Problems with Prevailing Attendance System

1. **Time Consumption in Roll Call System.** According to a research in a class of 100 students, 15 minutes are spent in taking attendance i.e. in a lecture of 1 hour we waste 25% time in attendance.
2. **Proxy Attendance by Students.** Proxy attendance in colleges are famous, what's less famous are their harsh effects on our education system. Students no longer bother to attend lectures.
3. **Time spent in Tabulating Attendance.** At the end of semester faculties become busy in tabulating attendance and calculating who has above 75% (famous eligibility criterion to sit in exams). Huge precious time of professors gets wasted in doing so.

These aren't all the problems, there are more to it. But these are the ones which are dominantly prevalent in our ongoing attendance systems.

Smart Attendance Manager (SAM) : Our Utility

- ☀ It will use mass face recognition to record attendance in background of lectures.
- ☀ It has a mobile interface application as well that has many features.
- ☀ Introduction of SAM will save time of faculties and ensure 0 proxy attendance and much more.



Technology Stack Used

- ☀ Machine Learning (SVM Classification and native libraries)
- ☀ Python for Automations
- ☀ Flutter SDK for Mobile Application
- ☀ Firebase for Database and Storage

Beneficiaries

- ☀ Faculties
- ☀ Students
- ☀ Institutions, Schools, Training Centers, Coachings, Organisations
- ☀ Government
- ☀ Education system