**Title of the Project :** Live Video Feed Based Online Attendance Capturing Tool

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**Abstract:**

With the rise of virtual learning and corporate online training through platforms such as Google Meet and WebEx, there is a growing need for an automated attendance management system. Manual tracking of student or trainee presence is inefficient, error-prone, and unsuitable for large- scale online sessions. To address this challenge, we propose a Live Video Feed based Online Attendance Capturing Tool that leverages Artificial Intelligence (AI) and Machine Learning (ML) to automatically recognize faces and generate attendance reports in real time.

The tool processes both live video streams and recorded sessions to identify participants based on their stored registration details, email ID, and reference photo in the central database. Attendance is updated automatically for the entire session, ensuring accurate monitoring of student presence. The system also provides a visual status indicator, marking students in green if they maintain regular attendance and in red if they have absences in previous classes. Furthermore, a dashboard interface allows administrators to view overall attendance summaries, along with daily and monthly reports for individual courses or sessions.From a technical perspective, the project involves dataset preparation, preprocessing, exploratory data analysis, feature extraction, and model building.

At least 3–4 ML or deep learning algorithms will be implemented, compared, and evaluated to ensure maximum recognition accuracy. The final system will be deployable as a web component, integrated with a central server for attendance updates, and capable of handling classes with more than 100 students.This solution aims to provide organizations and educational institutions with a scalable, reliable, and automated attendance management system that minimizes manual effort, improves transparency, and enhances the efficiency of online learning environments.