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Attendance Management System Using Face Recognition

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Abstract: *Attendance Monitoring is a common daily activity in Schools, Colleges, Workplaces and Managed Workplaces. It involves an Attendance gathering entity, a physical storage and the attendees. This task of manual Acquisition of attendance data is often tedious and hectic as well as time consuming assuming the limited Workplace time frame. Living in an age of automated machines, it is only feasible that this task be automated as well. This Project deals with using facial data of students for attendance detection systems and using a digital database to store the record with a functional User Friendly UI to be able to view it. This is achieved using A host Computer, A Raspberry Pi with camera hardware as well as a webpage to display the attendance data The data is shared between Pi and the host laptop to manage the detected faces. The data gathering is done via a trained model through the host laptop and is used via the Pi camera to detect the faces and create the digital database. The impacts of the projects will be profound since it will save time and effort of skilled individuals as well as prevent the massive paper wastage that follows manual attendance monitoring. It will also help in ease of access in the attendance of data and allowing the users to monitor their attendance themselves. This also allows for storage of massive data for longer periods of time for future use and reusing the same systems later also conserving the costs and materials.*

Keywords: Raspberry Pi, Attendance Monitoring System, Voila-Jones, Facial Recognition

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