Team Members

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Smart Attendance System using Face Detection & OpenCV

Abstract

An automated system for human face recognition in a real time background for an organization to mark the attendance of their employees/students is a real world solution which comes with day to day activities of handling employees. Using the face characteristics as biometric, the face recognition system can be implemented. In the traditional attendance system,their presence or absence is marked manually. However, these traditional techniques are time consuming.

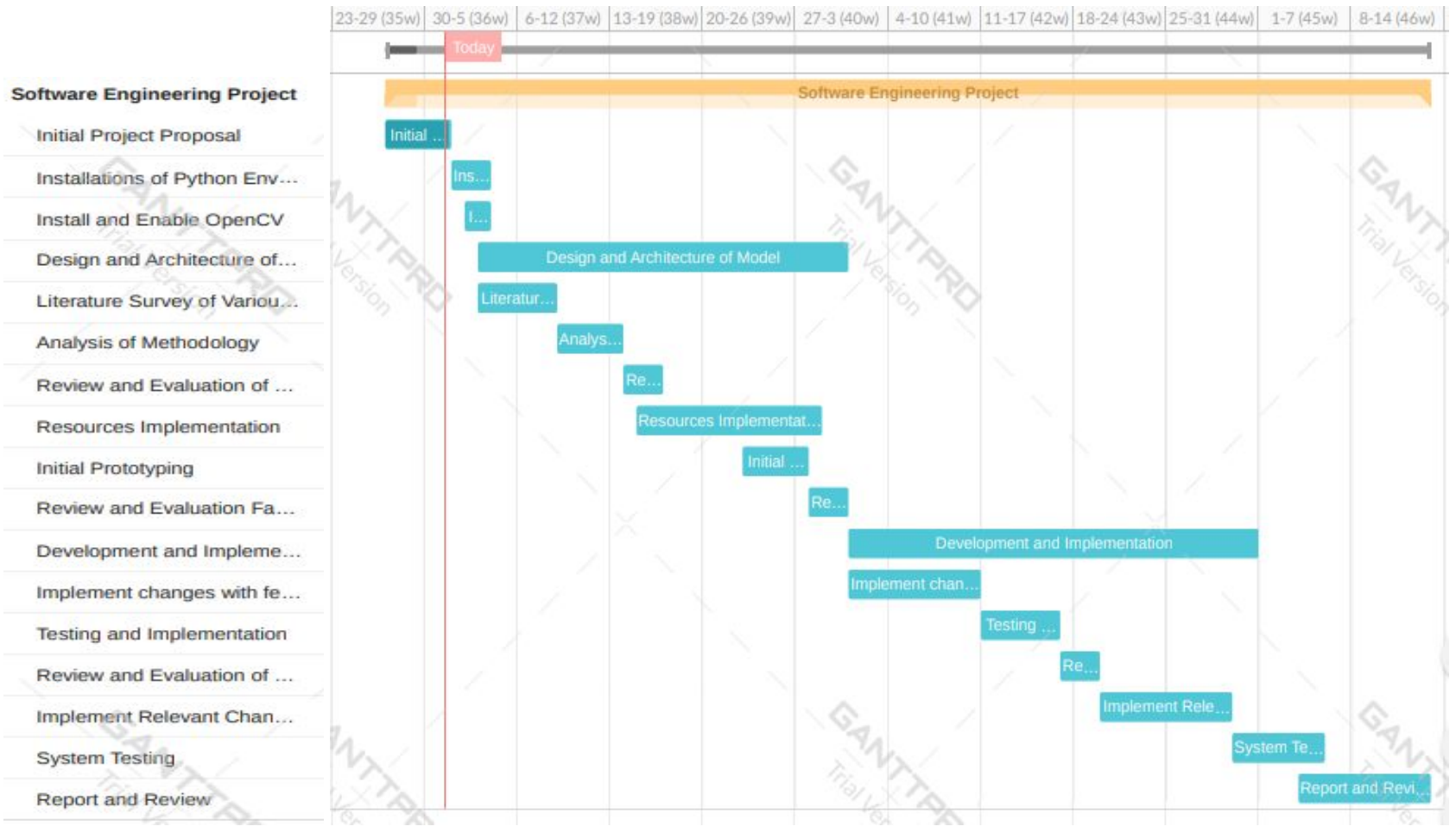
Objectives

In this project, the Open CV based face recognition approach has been proposed.

1. To develop a software that will facilitate attendance management by detection and recognition of students' faces and record the attendance live using Webcam.
2. The system would be able to match detected students' faces cropped from an image to those on a database on the system.

Work Methodology Proposed (using Gantt Chart)

- Installations of Pycharm ((python environment) along with OpenCV libraries **(2 Sept)**
- Conduct a literature survey to identify the apt Algorithm suitable for developing our model **(8 Sept)**
- Developing Design and Architecture of our model, by resource implementation and initial prototyping. **(27 Sept)**
- Implementing necessary changes with given feedback to counter underlying problems and tackle necessities. **(10 Oct)**
- Review and Evaluation of our model with full-scale testing and corrections. **(19 Oct)**
- System testing to improve the features. **(5 Nov)**
- Complete documentation of project with details in the Project Report **(10 Nov)**.



Expected Outcome

The requirements analysis of any project has laid the foundation to take the project forward through to the design and implementation phases.The total number of images saved in the folder will actuate the numeric attendance during the class.The images in the folder will be matched by the recognition part to faces already stored and trained on the database. This will facilitate a confirmation of attendance for a particular student. It will also enable the lecturer to take full control of the class by calling each student by name when need arises.

References

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[5] Sudhir Bussa, Shruti Bharuka, Ananya Mani and Sakshi Kaushik, "Smart Attendance System using OPENCV based on Facial Recognition", Vol. 9 Issue 03, March-2020.