Face-Recognition Attendance for University Classes

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***Abstract*—This undergraduate thesis investigates a face-recognition attendance system for university classes. Class attendance records can be organized through image capture and student identity matching. The student studies face-recognition methods and OpenCV, designs class, lecturer, and course records, and builds screens for camera-based attendance and attendance statistics. The manuscript illustrates recognition, attendance-management, and statistical screens and reports a working student prototype for recording class participation. The source notes poor recognition at some viewing angles, unoptimized methods, no live-person detection, and the need for a lecturer to start each session. It does not document accuracy, consent, privacy controls, or real classroom deployment. The contribution is a documented student study or prototype whose stated scope can guide further testing.**

***Index Terms*—face recognition, class attendance, OpenCV, student records**

I. Introduction

Class attendance records can be organized through image capture and student identity matching. This thesis investigates a face-recognition attendance system for university classes. It begins from a practical engineering need and explains the technologies and workflow chosen for the case. The objective is to document a student implementation or comparative investigation, together with the evidence available in the manuscript. Broader operational or economic effects require separate measurements and are not assumed from the existence of a prototype [1]. Earlier ICTU student work on related designs is included here for context [2], [3]. Related published studies provide context for the subject and methods [4], [5], [6], [7], [8], [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The student studies face-recognition methods and OpenCV, designs class, lecturer, and course records, and builds screens for camera-based attendance and attendance statistics. The source is summarized through its stated design, implementation material, examples, and conclusion. Features shown in the manuscript are distinguished from proposals for later development. This review does not add a new experiment, fill missing measurements with estimates, or treat a planned capability as an observed result. The source thesis remains the provenance for the reported work [1].

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III. Results

The manuscript illustrates recognition, attendance-management, and statistical screens and reports a working student prototype for recording class participation. The report's screens, configurations, examples, or measurements constitute the evidence for this summary. A capability described only as a design intention is not counted as a validated operational outcome. No additional performance, adoption, financial, or safety figure has been introduced here. The result is interpreted within the scope of the student's documented setup [1].

IV. Discussion

The source notes poor recognition at some viewing angles, unoptimized methods, no live-person detection, and the need for a lecturer to start each session. It does not document accuracy, consent, privacy controls, or real classroom deployment. Further work could evaluate recognition across lighting and angles, add liveness and privacy safeguards, and measure false matches with consented test data. These limitations affect how the evidence should be read. The current manuscript can support understanding of the design and reported demonstration, while independent tests would be needed for stronger claims. Any later deployment should document its environment and separate observed outcomes from intended benefits [1].

V. Conclusion

The thesis documents a face-recognition attendance system for university classes. The manuscript illustrates recognition, attendance-management, and statistical screens and reports a working student prototype for recording class participation. The source notes poor recognition at some viewing angles, unoptimized methods, no live-person detection, and the need for a lecturer to start each session. It does not document accuracy, consent, privacy controls, or real classroom deployment. Further work could evaluate recognition across lighting and angles, add liveness and privacy safeguards, and measure false matches with consented test data. Accordingly, the present contribution is a source-grounded account of the student work and its tested or illustrated scope. Claims about broader effectiveness should be assessed in later work using explicit evaluation conditions [1].

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