

ABSTRACT

The attendance system is one of the facilities provided on campus to record student attendance data. The attendance system generally uses a more modern approach by utilizing various technologies. Several technologies are used in attendance systems, for example, RFID or QR code technology. These two technologies effectively assist in verifying student attendance and recapitulating all data in real-time. However, the use of the attendance system is not enough to verify student identity in attendance, for example, attendance falsification, causing long queues and ineffective time. In overcoming these problems, a system is needed that can be a solution to improve verification security in the student attendance system. A biometric system is a technology that can improve security aspects in a more practical way using the physical and behaviour of individuals. Face recognition is a biometric authentication system that can identify a person using only human facial data. In this Final Project, the author will design an architectural face verification system based on face recognition that can be applied in case studies of student attendance systems to overcome problems in the existing conditions of student attendance systems. The method used in this research is the Software Development Lifecycle Model Prototyping method, which will assist the author in completing the research process from analysis to the testing stage. As an evaluation of the architectural proposals designed in case studies of student attendance systems, the authors will conduct tests with the implementation results developed on smartphones based on architectural proposals to determine system performance and feasibility.

Keywords—*face detection, face recognition, face verification, architecture*