REAL TIME AND AUTO TRIGGERED FACIAL RECOGITION

ENTRANCE SYSTEM

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ABSTRACT

Facial recognition door entry system has recently received significant attention as another way of authenticated biometric system that ensures the security of the specified locations such as office and laboratory. Besides preventing unauthorized users, the system can keep record of people going in and out from the room. This work proposes secure entrance system utilizing face recognition technique running on low power Intel atom processor. The system will provides or delivers automated, active, real time surveillance and identification solution providing event driven alerts based on excluded status. Upon detecting any suspicious faces, the system will alert respective person in-charged through connected GSM module. During the process an Intel atom motherboard will be used for interfacing between the GSM module and camera.

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INTRODUCTION

1.0 INTRODUCTION

A facial recognition system is a computer application for automatically identifying or verifying a person from a digital image or a video frame from a video source. One of the ways to do this is by comparing selected facial features from the image and a facial database. It is typically used in security systems and can be compared to other biometrics such as fingerprint or eye iris recognition systems. Nowadays we have seen a lot of change in technology but for face recognition there are still many things to discover. Most of face recognition system implemented are not a real time type. Besides that 2-dimensioinal face recognition aren't good enough for security purpose.

Biometric solution for access control system has recently received significant attention. The system eliminates demand for primitive security systems such as staff card and password. This project will utilize 3-dimensional recognition technique which is more accurate than 2D face recognition technique. This security system captures the facial details of the individual and saves the data electronically into the database of the computer. When the individual revisits the premise for the next time, the face recognition system again captures the facial details and performs a match with the already stored patterns. When it finds a match, it gives the permission for access right. By this our access control system checks the access of the individuals to certain restricted areas or resources. Intel atom motherboard will be used as the main controller.