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## Increasing Log-Access Security System Based On Face Recognition

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Today's nuclear institutions are facing major security issues; consequently, they need several specially trained personnel to attain the desired security. This personnel may make human mistakes that might affect the level of security. The human face plays an important role in social interaction, identifying people. Using the human face as a key to security, face recognition technology has received considerable attention, very popular and it is used more widely because it does not require any form of physical contact between the users and the device. This system is composed of two parts: the hardware part and software part. The hardware part consists of a camera and a motorized microcontroller system, while the software part consists of face-detection and face-recognition algorithms software. A camera scans the person's face and matches it to a database for verification. In this paper, we present an access control entering system to a must highly secured environments like nuclear/radiation environments. First, when a person enters to the zone in question, a real-time video stream is run by the camera and sent to the software to be analyzed and compared with an existing database of trusted people, and we propose an algorithm to detect and recognize the face of the person who wants to enter to the secured area and verify if he is allowed. The access door will be opened if the user is recognized and an alarm goes off if the user is not recognized.

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