Bahria University
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FINAL YEAR PROJECT REPORT

INTERNET OF THINGS PROVEN SECURITY MECHANISM USING PERSON IDENTIFICATION

In fulfillment of the requirement
For degree of Bachelors in INFORMATION TECHNOLOGY (BS-IT)

By

MUHAMMAD ZEESHAN SALEEM	41228
SAROSH AAMIR	41232
FARAZ SHAHID	41213
HAFSA MUNAWAR	41214
MUHAMMAD MAAZ	41225

SUPERVISED

BY

DR. GHULAM MUHAMMAD SHAIKH

BAHRIA UNIVERSITY (KARACHI CAMPUS)

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ABSTRACT

The project's objective is to develop a theft detection system based on facial recognition. The system would detect faces though a camera, process the faces and decide whether the face belongs to an authorized entity or not. If the person is not authorized to enter the room/area, the system would send an SMS to the authorized person through GSM module, and the authorized person would be able to surveillance the area using an Android application in real time though internet an internet connection. Different techniques that are used for recognition of faces are explored in this report. All of the different stages that are involved in the entire image processing stage will be studied and discussed. Finally the algorithm coded in python implemented in the Raspberry Pie module.

The report discusses the methods used for the completion of the project and the flow of the system. The report goes into detail about various stages in image processing about what methodology is used for facial detection, and then recognition. The report discusses how Har Cascade Classifiers are used for facial detection and LBPH for recognition with details of their working. And how SMS are sent using AT commands in python and how all the different applications are created for surveillance. The report focuses on details on how the different modules are brought together and integrated for the completion of the project.

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