Intelligent High-Security Monitoring System

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Dedication

I am dedicating this thesis to people who have meant and continue to mean so much to me. First and foremost to Almighty God for giving us the strength to overcome pressure while doing this thesis, to my parents whose love for me knew no bounds and, who taught me the value of hard work. Thank you so much.

Next to my supervisor, who help us in everything and motivate us, to all the people who make this study possible to make such a project that can be useful to mankind.

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Abstract

Video monitoring systems are becoming very significant in private and public atmosphere to observer actions of the peoples whether they are normal or abnormal. The study and detection of an abnormal behavior in real time has gradually becoming popular in an area of the Intelligent Video Surveillance (IVS), since it lets to remove the large amount of useless information which increase the efficiency in the security surveillance system and which save many human and material resources.

The idea behind making this project was to save the peoples from the terrorist attacks and by other crimes like robbery, kidnapping etc. In this project, we implement an intelligent security system that detect the abnormal behaviors in the video by using Convolution Neural Networks (CNN). We make our system embedded so it can install anywhere easily by using a raspberry pi. The raspberry pi act as the main processing unit and we use a camera module to take input and give it to the raspberry pi.

This system detect and give the real-time alarming better than the previous monitoring systems. This system detect the abnormal behaviors and does not depend on any environment. Our method has high accuracy that is greater than the previous proposed methods.

Table of Contents

List of Figures