

# Intelligent High-Security Monitoring System

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# Certificate

We accept the work contained in this report as a confirmation to the required standard for the partial fulfillment of the degree of BS (EE).

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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 observe actions of the people whether they are normal or abnormal. The study and detection of an abnormal behavior in real time has gradually become popular in an area of the Intelligent Video Surveillance (IVS), since it lets to remove the large amount of useless information which increases the efficiency in the security surveillance system and which saves many human and material resources.

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

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

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