REAL-TIME AUTOMATED CRIME DETECTION SYSTEM

DINUSHA KAUSHALYA

A dissertation submitted in partial fulfillment of the requirement for

BEng (Hons) Software Engineering Degree in Computer Science

School of Computing

Department of Computing Informatics Institute of Technology, Sri Lanka

in Collaboration with

University of Westminster, UK

2022

ABSTRACT

Social security is the most challenging thing in the modern world. People's lifestyles are getting complicated and people face economic and social challenges. As a result of these challenges, people's mentality is deteriorating and they are moving to criminal ways. A violent crime can mention murder, robbery, kidnapping, sexual assault, homicide, etc. On the other hand, increasing weapon usage in civil society is a huge problem to social security. Especially violent crimes are committed even in countries with favorable living conditions. They have straight police enforcement and tough sentences for violent crimes. But considering the increase the crime, things are not enough for social security.

The use of new technology should be done to help avoid this situation. as usage of technology can mention the CCTV camera systems .as an example, there are about 415.8 million CCTV cameras located in china and also if take the whole world over 1 billion CCTV cameras are using for social security (Paul B,2021). But CCTV cameras can't work alone they need human supervision. It is very difficult to thing. It needs 24 hours supervision because we can't say when the crime will be committed. on the other hand, sometimes the human eye done mistakes because it is difficult to monitor several screens at one time. So this shows that without human supervision CCTV cameras are useless things.

As an answer for this problem can mention an Automated crime detection system. The Automated crime detection system use object detection algorithms and can identify human violent criminal activities and dangerous weapon usage. when the crime is committed, the system will notify the situation without human supervision.