**KYAMBOGO UNIVERSITY**

**SCHOOL OF COMPUTING AND INFORMATION SCIENCE**

**CCTV MONITORING SYSTEM**

By

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**INTRODUCTION**

**Introduction**

This study is an attempt to assess the implementation of a web based application called **Thabiti Camera**. This chapter comprises of the background of the study, Problem statement, Purpose of the study, objectives of the study, research questions and the scope of the study and significance of the study.

**Background**

Uganda faces a problem of high crime rates both in the rural and urban centers. These are rampant in urban areas. With the evolution of technology, individuals and the government decided to install cameras in areas where these crimes usually occur as a way of curbing down the crime rates and also to have a starting point for investigation when they occur. They are installed to monitor crime, fire outbreaks, accidents and suspicious behavior.

Survey shows that most CCTV operators tend to use CCTV as a symbol to deter crime and these cameras are made clearly visible to the public. They have been embraced by Ugandans in their businesses and other sectors of the country like at schools, petrol stations, hospitals, homes, government facilities and along major roads.

So far, 2547 cameras have been installed by the Uganda Police Force where 1565 of them work online and others are connected by fibre cable to surveillance centers. Roughly less than 1000 cameras have been installed and monitored by private individuals.

The current installed cameras require an individual to seat around and continuously monitor them or monitor them remotely for individuals with high administrative rights. This is expensive as the individual hired to monitor them has to be paid.

**Problem statement**

Without continuous monitoring, the cameras just watch the events without an immediate response to any occurrence of a crime.

**Objectives of the study.**

This study is guided by the following research objectives.

**General/Main Objective**

To develop an automated web-based system that uses Artificial Intelligence and Machine Learning to watch activities and send signals to authorities in events of crime and accidents.

**Specific objectives**

* For individuals to monitor their homes and assets
* To reduce on the damage caused by accidents and crimes by providing real time alerts.
* To predict human behaviors hence predicting crimes too.

**Research Questions**

1. How do individuals get notified of premise’s security breach in case of their absence?
2. How do authorities get news about accidents in areas where they have no cameras?
3. What time is spent to respond to accidents and crime occurrences?
4. What do authorities think of automating the system?

**Scope**

**Context Scope**

The scope provides for the boundary of the research in terms of depth of investigation, content, sample size, methodology, geographical and theoretical coverage this scope is limited to developing a web-based application with emphasis on events response.

**Geographical scope**

The study will be conducted in the central part of Uganda since there is a high concentration of CCTV camera use.

**Time Scope**

The time frame for this study will be of 5 months between November 2022 to March 2023. This period will enable the researcher to get sustainable data about the study.

**Significances**

* To ease the process of responding to events of accidents and crime.
* To provide an immediate response to crimes and accidents.
* To reduce on damage caused by accidents and crimes
* To predict crimes

**CHAPTER TWO**

**LITERATUE REVIEW**

**2.0 Introduction**

This section consists of a critical review of research work from journals, internet sources and other projects already done which is related to the subject area as well as analysis of existing literature on Surveillance Management system with the objective of reveling, contributions, weaknesses and gaps.

**2.1 General overview about CCTV and other monitoring and Surveillance systems.**

**2.2 Conclusion.**

# **CHAPTER THREE**

# **METHODOLOGY**

## **3.0 Introduction**

This chapter covers the methods that will be used in carrying out the project and the analysis of the methods that will be used.

## **3.1 Research Methodology**

During the project work, data collection will be carried out in various ways. In gathering and collecting necessary data and information needed for the success of this project, newspapers, journals, articles, e-books and the internet in general will be vital sources. Useful information for the development of the system will also be collected from police and other authorities and student interactions (case study) using appropriate data collection techniques.

Software development approach that will be used in the design of this system is the top-down approach. A top-down approach (also known as stepwise design or deductive reasoning) is essentially the breaking down of a system to gain insight into its compositional subsystems. In the top-down approach, an overview of the system was formulated.

## **3.2 Data collection Techniques**

As a means of improving the existing system, system analysis will be conducted. For this project, I look into the analysis of surveillance system where input data will be accessed and see how the system accomplishes its goal. This will help to detect the existing system problems of which suggestion to the new system which will be made to improve the services.

The collection of information from the authorities and individuals will be carried out in order to get the user requirements, what they expect of the new system which will help in the development of this monitoring and surveillance management system. The tools that will be used for data gathering include interviews, reading literature (written documents) and observation.

**Literature Review**

**Interviews**

**Observation**

**REFERENCES**