

DAR ES SALAAM INSTITUTE OF TECHNOLOGY (DIT)
DEPARTMENT OF COMPUTER STUDIES
BACHELOR OF ENGINEERING IN COMPUTER ENGINEERING



**PROJECT TITLE : A WEB-BASED AND MOBILE APPLICATION FOR
CRIME PATTERN ANALYSIS AND
VISUALIZATION**

PROJECT TYPE : PROBLEM SOLVING

CASE STUDY : DAR ES SALAAM

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Abstract

- In recent years and more crime has just been reported to the news sources (news papers, blog and website) and there is no an appropriate Mechanism for Revealing crime statistics and patterns
- Hence, the proposed system a web-based and mobile application for crime and pattern analysis and visualization provide a solution by helping to analyze data based on crime related reported on newspapers articles and news blog and display the results to the Public to assist decision making and inhibiting crimes to the goals of the law enforcement organizations that fits with the changing society

Introduction

- Crime analysis is one of the important application of data mining
- Data mining is the process of identifying valid, potentially , useful and ultimately understandable structure in data
- Data mining represents of the emerging field that can be used a wide disciplinary application including marketing, banking and many other field that are highly affect the communities.
- Crime analysis is the qualitative and quantitave study of crime and police related information in combination with socio- demographic and partial factors to apprehend criminals, prevent crime, reduce disorder and evaluate organizational procedures

Problem Statement

- There is not an appropriate Mechanism for Revealing crime statistics and patterns to individuals/Public also, there is no focus seen over the crimes reported over the news sources(newspapers, blogs and websites), for instance in newspapers websites like www.mwananchi.com there exist not less than 283 articles that reports about crime
- The current way of analyzing crimes lacks enough data as it bases only on crimes reported directs to the police stations also it uses manual processes thus contributing little support to the decision making.

Main Objective

- The main objective is to develop a web- based and a mobile application for crime pattern analysis and visualization.

Specific Objectives

The specific objectives are

- To design and develop user management subsystem
- To design and develop data mining subsystem
- To design and develop a web for data analysis
- To design and develop and implement a data visualization subsystem
- To design and develop the API system integration
- To design and develop a mobile application

Significance of the Project

- The study presents crime pattern analysis and visualization tool that will help in identifying the general and specific crimes trends, patterns and series in a continuous period, this will improve decision making in law enforcement organizations and increase alternative ways of combatting against possible future crimes. This project work to emphasis on providing solutions that can improve the process of crime analysis for identifying and reducing crime in Tanzania.