

MES COLLEGE OF ENGINEERING, KUTTIPPURAM  
DEPARTMENT OF COMPUTER APPLICATIONS  
20MCA245 – MINI PROJECT

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**PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT**

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*(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)*

Mini Project Proposal No : \_\_\_\_\_  
(Filled by the Department)

Academic Year : \_2021-2022\_\_\_\_\_  
Year of Admission : \_\_\_\_\_2020\_\_\_\_\_

1. Title of the Project : Crime Analysis Mapping
2. Name of the Guide : Mr.Balachandran KP
3. Number of the Student: MES20MCA-2010
4. Student Details (in BLOCK LETTERS)

Name ARCHANA AP

Roll Number 10

Signature

1.

Date: 1/11/2021

**Approval Status :** Approved / Not Approved

Signature of  
Committee Members }

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**Comments of The Mini Project Guide**

Dated Signature

Initial Submission :

First Review :

Second Review :

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**Comments of The Project Coordinator**

Dated Signature

Initial Submission:

First Review

Second Review

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Final Comments :

Dated Signature of HOD

### Introduction & Objectives:

Crimes are one of the most predominant problems that is happening in most of the urban areas in the world. There are a lot of different types of crimes that happen, including robbery, theft of vehicles, etc. As crime increases, the investigation process gets longer and more complicated.

The use of information mining methods helps in resolving most complicated criminal cases. One of the best methods is crime analysis with crime mapping. Crime analysis with crime mapping helps in understanding the concepts and practices of crime analysis in assisting police and helps in the reduction and prevention of crimes and crime disorders.

Crime mapping is conducted and funded by the Office of Community Oriented Policing Services (COPS). Evidence based research helps in analyzing the crimes. We calculate the crime rate based on the previous data using data mining techniques. Crime analysis uses quantitative and qualitative data and analytic techniques in resolving the cases.

For public safety purposes, the crime mapping is an essential research area to concentrate on. We can identify the highest risk crime zones with the help of data mining techniques.

In this mini project, Crime Analysis is assisting police and helps in reduction and prevention of crimes and crime disorders using data mining tools. We collect the data from police department and try to get each and every detail, like the person's name, height, age, sex, fingerprint details, and pattern identification number for similar types of cases. Once we get the information, we start to process the data.

- To identify the frequent crime pattern in a particular area for assisting police and helps in reduction and prevention of crimes by providing patrol in hotspot areas.
- To store details of crimes and criminal, that make efficient retrieval whenever needed.

### Problem Definition & Initial Requirements:

In Our Proposed System Crime Mapping helps in understanding the concepts and practice of Crime Analysis in assisting police and helps in reduction and prevention of crimes and crime disorders using data mining tools. We collect the data from police department and try to get each and every detail, like the person's name, height, age, sex, fingerprint details, and pattern identification number for similar types of cases. Once we get the information, we start to process the data. ie once we get the details We take the data that has all the details about the case and we try to solve the other cases by training using this supervised data (ie the data we needed for training and prediction). We mainly collect the attributes information, like eye color, fingerprint details, characteristics, dimensions, or other features.

In the proposed system crime records including crime name, place, date, time and details of criminal like name, photo, place etc. are given, a table displaying place and frequently occurring crime pattern on each place are predicted.

**Existing System:** Crime has been increasing day by day and everyone in the world is trying to figure out how to manage the crime rate and to work on certain cases. Human errors can occur at any point of time. There are different types of crimes law enforcement levels, such as traffic violations, sex crime, theft, violent crime, arson, gang/drug offenses, cybercrime. In the existing crime analysis system most of the operations are done manually so these type of systems need more man power to track the records of crimes. So it is very time consuming and also make more effort to find out frequently occurring crime pattern in a particular area. In current system all the work is done on papers so it is very difficult to secure crime data. Human errors can occur at any point of time.

## **Basic functionalities:**

### **Apriori algorithm**

Apriori is an algorithm for frequent itemset mining and association rule learning over relational databases. It proceeds by identifying the frequent individual items in the database and extending them to larger and larger item sets as those item sets appear sufficiently often in the database.

### **Modules**

- Police
- User

Police- Login, Manage crime types, Manage crimes, Manage criminals, View complaints, View evidence uploaded

User- Register, Login, View crime types, View crimes, View criminals, Report a criminal found, Make a complaint

### **HARDWARE AND SOFTWARE REQUIREMENT**

PROCESSOR: Intel Pentium Core i3 and above, 64 bits

RAM: Min3GB RAM

HARD DISK: 10 GB

OPERATING SYSTEM: WINDOWS 10

FRONT END: HTML, CSS, JAVASCRIPT

BACK END: Mysql

IDE USED: JetBrainsPycharm, Android studio

TECHNOLOGY USED: PYTHON JAVA

FRAME WORK USED: Flask