MANIPAL INSTITUTE OF TECHNOLOGY

(A constituent Institute of Manipal University)

MANIPAL - 576 104, KARNATAKA, INDIA

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CRIME RATE ANALYSIS AND PREDICTION

BY,

RAJNEESH KAUSHAL - 140911039
SAI TEJA SARANGU - 140911128

Under the Guidance of

Ms ANJU R
Ms GIRIJA ATTIGERI
Mr NIRMAL KUMAR NIGAM

INTRODUCTION

An analysis of Crime in India. This R project analyzes the crime based on the data available for different states against different crime heads. A linear regression model is used to fit the data for the state for a particular crime. This is then used to make projections of the crime in the years to come

PROBLEM DEFINITION

We aim to explore in this work the applicability of data mining technique in the efforts of crime prediction with particular emphasis to the data set. We propose to implement a model that could help us to extract crime patterns. These patterns will be applied to some data mining algorithms such as linear regression analysis.

OBJECTIVE

Here we look at use of data mining approach of regression analysis to help detect the crimes patterns and speed up the process of solving crime

SCOPE/IMPORTANCE OF PROJECT

Data mining can be used to model crime detection problems. Crimes are a social nuisance and cost our society dearly in several ways. Any research that can help in solving crimes faster will pay for itself.

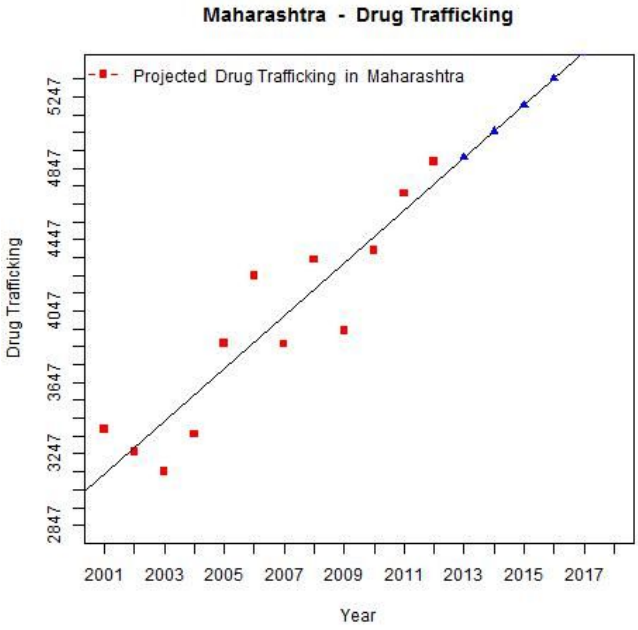
METHODOLOGY

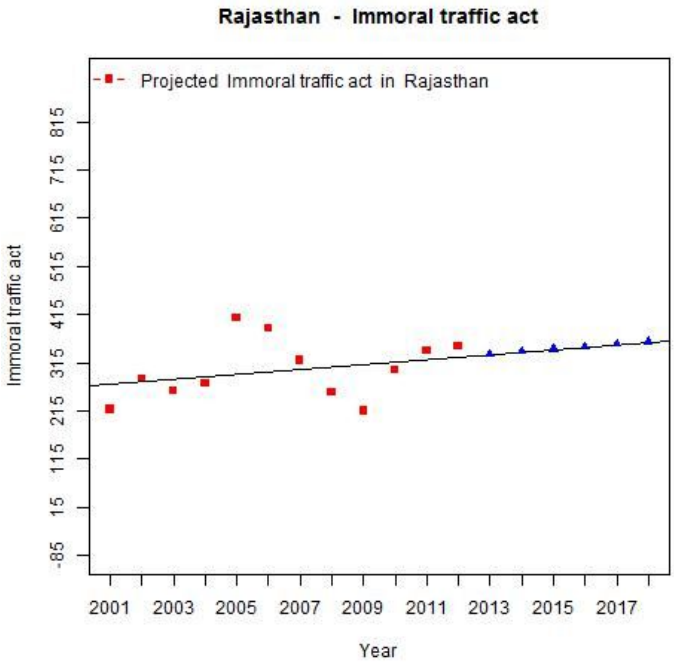
In linear regression, the model specification is that the dependent variable, $\{y_i\}$ is a linear combination of the parameters (but need not be linear in the independent variables). For example, in simple linear regression for modeling $\{n\}$ data points there is one independent variable: $\{x_i\}$, and two parameters, β_0 , β_1

Straight line : $y_i = \beta_0 + \beta_1 (x_i) + \varepsilon_i$

RESULTS

The tables below are based on the projected incidence of crimes under various categories assuming that these states maintain their torrid crime rate.





CONCLUSION

By using the present dataset of crimes among different states of India we are predicting the crime rate for the future years.

VII. REFERENCES

1. *C McCue, "Using Data Mining to Predict and Prevent Violent Crimes".*

*2.*Open Government Data (OGD) Platform India

3.R: Documentation