

Aditya Nagar, ADB Road, Surampalem - 533437

# DEPARTMENT OF INFORMATION TECHNOLOGY B. Tech 4/4, II-SEMESTER II Semester 2021-22

### PREDICTION OF CRIME HOTSPOTS USING MACHINE LEARNING

#### ABSTRACT

A crime is an unlawful act which is punishable by a state or other authority. It is an act which is harmful not only to individual but also to community, state or society. A crime hotspot is generally defined as an area containing huge number of criminal activities. So, identification of crime hotspots helps public safety sectors to allocate various measures for crime prevention. The main objective of this project is to implement machine learning techniques to predict the crime hotspot. Crime prediction plays a vital role in the implementation of crime prevention and control. So, machine learning is the current mainstream method for the prediction of crime hotspots. It takes advantage of historical data and characteristics associated with the crime. The final result of this project is to efficiently analyze and predict the crime hotspot. In this project, we propose a machine learning algorithm Kmeans for crime hotspot prediction.

# **Course Outcomes (COs)**

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After completing this course, the student will be able to:

CO Number	CO Statement	Taxonomy
CO1	Demonstrate the technical knowledge to identify problems in the field of Information Technology and its allied areas.	Understand
CO2	Use literature to identify the objective, scope and the concept of the work.	Apply
CO3	Analyze and formulate technical projects with a comprehensive and systematic approach.	Analyse
CO4	Identify the modern tools to implement technical projects.	Evaluate
CO5	Design engineering solutions for solving complex engineering problems.	Create
CO6	Develop effective communication skills, professional behaviour and team work.	Understand

	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PSO	PSO	PSO
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	2	1	1					3	1	1	1	2	2	
CO2	2	2	1	1					3	2	2	2	2	2	
CO3	2	3	2	2					3	2	2	2	2	1	1
CO4	2	1	3	2	3				3	2	2	2	3	2	1
CO5	2	2	3	3	1				2	2	1	2	3	3	2
CO6	2			2	1				2	3	3	3	1	1	2
Course	2.0	1.7	1.7	1.8	0.8				2.7	2.0	1.8	2.0	2.2	1.8	1.0

PO1	Engineering Knowledge	PO7	Environment & Sustainability
PO2	Problem Analysis	PO8	Ethics
PO3	Design / Development of Solutions	PO9	Individual & Team Work
PO4	Conduct Investigations of complex problems	PO10	Communication Skills
PO5	Modern Tool usage	PO11	Project Management & Finance
PO6	Engineer & Society	PO12	Life-long Learning