# Crime Prediction and Analysis Using Machine Learning

**Abstract:**

Crime is one of the biggest and dominating problem in our society and its prevention is an important. task. Daily there are huge numbers of crimes committed frequently. This require keeping track of all the crimes and maintaining a database for same which may be used for future reference. The current problem faced are maintaining of proper dataset of crime and analyzing this data to help in predicting and solving crimes in future. The objective of this project is to analyze dataset which consist of numerous crimes and predicting the type of crime which may happen in future depending upon various conditions. In this project, we will be using the technique of machine learning and data science for crime prediction of Chicago crime data set. The crime data is extracted from the official portal of Chicago police. It consists of crime information like location description, type of crime, date, time, latitude, longitude. Before training of the model data preprocessing will be done following this feature selection and scaling will be done so that accuracy obtain will be high. The K-Nearest Neighbor (KNN) classification and various other algorithms will be tested for crime prediction and one with better accuracy will be used for training. Visualization of dataset will be done in terms of graphical representation of many cases for example at which time the criminal rates are high or at which month the criminal activities are high. The soul purpose of this project is to give a jest idea of how machine learning can be used by the law enforcement agencies to detect, predict and solve crimes at a much faster rate and thus reduces the crime rate. It not restricted to Chicago, this can be used in other states or countries depending upon the availability of the dataset.