GLOBAL ACADEMY OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

(Accredited by NBA 2019-2022)

Rajarajeshwari Nagar, Bengaluru – 560 098

Academic Year: 2021 - 22

PROJECT SYNOPSIS

Subject Name	**Project Work Phase – 1**	**Subject Code**	**18CSP77**
Student Name	AKHILADEVI M	**USN**	1GA18CS017
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Domain	MACHINE LEARNING	**Group No:**	**10**
Project Title	ROAD ACCIDENT ANALYSIS USING MACHINE LEARNING		

ABSTRACT:

Today, traffic safety is one of the main priorities of governments. Considering the importance of topic, identifying the factors of road accidents has become the main aim to reduce the damage caused by traffic accidents. Here the concepts of machine learning and data mining is used to identify the various factors that affect road accidents and its severity. The application takes various inputs such as weather conditions, road conditions, time of day etc. and uses machine learning algorithm (Decision tree algorithm, KNN algorithm, Logistic Regression etc) to calculate the severity of a possible accident on a scale of 1 to 4 (1 being the least and 4 being the most severe). This data can be used for analysis of future inputs and improves the accuracy of the system output. The model can further be improved to send the report of the accident to the concerned authorities, such as hospitals, ambulance and insurance agencies and can therefore prove to be very helpful in reducing accident fatality rates in the country.

OBJECTIVES:

- Analyze the previously occurred accidents in the locality which will be helping to determine the most accident-prone area and help us to set up the immediate required help for them.

- To make predictions based on constraints like weather, pollution, road structure, etc.

REQUIREMENT SPECIFICATION:

Minimum Hardware Requirement specification:

Processor	: Any Processor above 500 MHz
RAM	: 512Mb
Hard Disk	: 10 GB
Input device	: Standard Keyboard and Mouse
Output device	: VGA and High Resolution Monitor

Minimum Software Requirement Specification:

Anaconda: Anaconda is a free and open-source distribution of the Python and R programming languages for scientific computing like data science, machine learning applications, largescale data processing, predictive analytics, etc. that aims to simplify package management and deployment.

Three Applications will be used :

Jupyter

Spyder

Google Colab