**SHRI SHANKARACHARYA INSTITUTE OF PROFESSIONAL MANAGEMENT AND TECHNOLOGY, Raipur**

**DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION**

**B.E. VIII SEMESTER**

**MAJOR PROJECT SYNOPSIS**

Data modelling and analysis of COVID-19 cases epidemic in Raipur, Chhattisgarh, INDIA

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1. **PERSONAL DETAIL: -**
2. **PROJECT INFORMATION: -**

PROJECT TITLE- Data modelling and analysis of COVID-19 cases epidemic in Raipur, INDIA

SUBJECT AREA- Python (Data Science and predictive model using ML)

TYPE OF PROJECT- SOFTWARE

**PROJECT SUMMARY: -**

INTRODUCTION: -

The basic idea behind this project is to create a simple stand-alone application that helps less tech savvy people in the world to use the computer without feeling ignorant or computer illiterate. Computers have become a very important devices and as well as less expensive over time.

Here we will start by scraping covid-19 data from a website or collecting data from various sources, apply data cleaning and cluster technique. The basic concept behind the project is to analyse the data in such a way that data will become informative source and further can be used for visualization and prediction model.

1. WORKING PRINCIPAL: -

* With the precise use of data sheet contains the case set of confirmed, recovered and decreased cases outcome of COVID-19, from the first day of case found in Raipur, Chhattisgarh. Visualization of data will be done using matplotlib and seaborn python libraries. Clustering will be done under the following parameters;

1. Confirmed cases
2. Recovered cases
3. Decreased cases
4. Comparison between confirmed cases, recovered cases and decreased cases.
5. Lockdown
6. Weekend lockdown
7. Quarantine zoning and section 144
8. Face-mask and Social distancing made compulsory

(graphing w.r.t date)

* With the help of data visualization and data collecting, an algorithm is applied on to the data about, the recovery rate, average growth rate and fatality ratio in cases found at Raipur, IN.

1. FLOW DIAGRAM: -

DATA SET CREATED

DATA CLEANING

DATA COLLECTION

RESULT/ OUTPUT

VISULIZATION

PARAMETERS/ ALGORITHM

**Hardware Requirement: -** Nil

**Software Requirement: -** VS studio/ PyCharm/ Jupiter Notebook

Compiler: - VS studio code/ Jupiter Notebook

Language: - Python

1. APPLICATION: -

This model can help people to understand the data for covid cases, how it’s affecting the environment and society, precaution should be taken or not, is it dangerous or not, fatality rate and many more queries- answer will get solved. Also, with scientific and mathematical parameters.

1. **ARE YOU SURE THAT THE COMPONENTS/ SOFTWARE ARE AVAILABLE TO YOU?**

# YES

**REMARK BY PROJECT COORDINATOR: -**

**SIGN STUDENT PROJECT COORDINATOR**

**HOD**