CMR College of Engineering & Technology

(UGC Autonomous)

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Department of Computer Science and Engineering

MINI PROJECT-II	
Domain of the Project	DATA ANALYSIS
Title of the Project	COVID19 TRACKER
Year/Sem	3rd /VI
Name of the Guide& Designation	Dr.S.KIRUBAKARAN (ASSOCIATE PROFESSOR)
Date of Submission	31/05/2022
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ABSTRACT

The novel coronavirus (COVID-19) that was first reported at the end of 2019 has impacted almost every aspect of life as we know it. This paper focuses on the incidence of the disease in Italy and Spain—two of the first and most affected European countries. Using two simple mathematical epidemiological models—the Susceptible-Infectious-Recovered model and the log-linear regression model, we model the daily and cumulative incidence of COVID-19 in the two countries during the early stage of the outbreak, and compute estimates for basic measures of the infectiousness of the disease including the basic reproduction number, growth rate, and doubling time. Estimates of the basic reproduction number were found to be larger than 1 in both countries, with values being between 2 and 3 for Italy, and 2.5 and 4 for Spain. Estimates were also computed for the more dynamic effective reproduction number, which showed that since the first cases were confirmed in the respective countries the severity has generally been decreasing. The predictive ability of the log-linear regression model was found to give a better fit and simple estimates of the daily incidence for both countries were computed.

Guide Signature