

ABSTRACT

Different situations demand different approaches. Contagious diseases impact the normal life of public. Effective prediction mechanisms are necessary to model this problem. Adding to this situation, a situation created by a pandemic is worst to imagine and face. Recently, world has been going through the Covid-19 pandemic. The implications and effect on human race are still unmeasured. Covid-19 in other words Coronavirus has affected millions of lives across the globe financially, psychologically and physically. Unfortunately, there is loss of human life considerably is a major concern.

Data Scientists, Mathematicians and Virology experts are engaged in predicting the impact of this pandemic in near future. An attempt has been made in this work by taking a case study approach in India. The patterns are studied and a prediction has been made to alert the health sector authorities. The real time data has been acquired, analyzed and the patterns of infection spread has been predicted using machine learning algorithms such as ARIMA and deep learning algorithms such as RNN and LSTM.

Deep learning based prediction method is used in this research work on real time data sets collected. A weather prediction model and dengue disease spread also studied initially to get measure the efficiency of this deep learning based approach.

This study proven that the deep learning based approach has produced better results than the conventional methods, while predicting the sporadic yet statistical data outcomes. The implications of these studies are drawn and the prediction of pandemic outburst in India and the dynamics related to the impact created by the pandemic are discussed.

