ABSTRACT
Detection of COVID-19 from Chest X-ray and CT-Scan images

Deep Learning has improved multi-fold in recent years and it has been playing a great role in image classification which also includes medical imaging. Convolutional Neural Networks (CNN) has been performing well in detecting many diseases including Coronary Artery Disease, Malaria, Alzheimer's disease, different dental diseases, and Parkinson's disease. Like other cases, CNN has a substantial prospect in detecting COVID-19 patients with medical images like chest X-rays and CTs. Coronavirus or COVID-19 has been declared a global pandemic by the World Health Organization (WHO). Till July 11, 2020, the total COVID-19 confirmed cases are 12.32 M and deaths are 0.556 M worldwide. Detecting Corona positive patients is very important in preventing the spread of this virus. On this conquest, a CNN model is proposed to detect COVID-19 patients from chest X-ray images. This model is evaluated with a comparative analysis of two other CNN models. The proposed model performs with an accuracy of 97.56% and a precision of 95.34%. This model gives the Receiver Operating Characteristic (ROC) curve area of 0.976 and F1-score of 97.61. It can be improved further by increasing the dataset for training the model.