

A Comparative Study of Deep Learning Methods for COVID-19 Detection

Authors : Aishrith Rao

Abstract : COVID 19 is a pandemic which has resulted in thousands of deaths around the world and a huge impact on the global economy. Testing is a huge issue as the test kits have limited availability and are expensive to manufacture. Using deep learning methods on radiology images in the detection of the coronavirus as these images contain information about the spread of the virus in the lungs is extremely economical and time-saving as it can be used in areas with a lack of testing facilities. This paper focuses on binary classification and multi-class classification of COVID 19 and other diseases such as pneumonia, tuberculosis, etc. Different deep learning methods such as VGG-19, COVID-Net, ResNET+ SVM, Deep CNN, DarkCovidnet, etc., have been used, and their accuracy has been compared using the Chest X-Ray dataset.

Keywords : deep learning, computer vision, radiology, COVID-19, ResNet, VGG-19, deep neural networks

Conference Title : ICMLC 2021 : International Conference on Machine Learning for Control

Conference Location : London, United Kingdom

Conference Dates : March 15-16, 2021