**ABSTRACT**

In this paper, described a Deep Convolutional Neural Network-based solution which can detect the COVID-19 positive patients using chest X-Ray images. Multiple state-of-the-art CNN models — Resnet50V2, Xception and Inceptionv3, have been adopted in the proposed work. They have been trained individually to make independent predictions. Then the models are combined, using a new method of **weighted average ensembling** technique, to predict a class value. To test the efficacy of the solution publicly available chest X-ray images of [COVID-19 Radiography Dataset](https://www.kaggle.com/code/gpiosenka/feature-rich-callback-f1-score-95/data) was used. To make dataset balanced extra dataset of Chest X-Ray Images (Pneumonia) was concatenated to initial dataset. Total dataset have been divided into training and test sets. The proposed approach gave a classification accuracy **of 91.62%** which is higher than the state-of-the-art CNN models as well the compared benchmark algorithm.