

# Lung Infection Severity Assessment using Deep Learning Algorithm

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**Abstract:** A CT scan of the chest is used to find problems such as infection, lung cancer, blockage, pneumonia, and COVID-19. In this work, a CT scan is used to classify the stages of lung infection as normal, mild, moderate, and severe. Computed tomography (CT) is one of the imaging techniques for the diagnosis of lung infections. Fast and accurate screening is possible using computed tomography (CT) scan images. Automated diagnosis of severity level of lung infection from the CT scan pictures can be used by doctors as a quick and efficient method for treating patients to save their lives. In the proposed system, a convolutional neural network is used to classify the stages of lung infection and obtain accurate results.

**Keywords:** Convolutional Neural Network (CNN), Computed tomography (CT), Lung, Deep Learning (DL)

## V. CONCLUSION

In this work, convolutional neural network (CNN) is used for automatically finding the severity level of lung infection from CT scan image. It is classified as normal, mild, moderate, and severe. CNN layers work well, extract the features, and take less time. In this work, 7 layers are used. The layers start with the input layer, ReLU, max pooling, fully connected layer, softmax, and classification layer that produce the predicted class. The proposed architecture achieved 100% accuracy and zero percentage data loss.

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