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<p>(51) International classification :G06N0003040000, G06K0009620000, G06N0003080000, G06T0007000000, G06K0009460000</p> <p>(31) Priority Document No :NA (32) Priority Date :NA (33) Name of priority country :NA (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Dr. Sushma Jaiswal,CSIT, Guru Ghasidas Central University Address of Applicant :Assistant Professor, CSIT, Guru Ghasidas Central University, C.G, Koni, Bilaspur, Chhattisgarh India 495009 Chattisgarh India 2)Dr.N.C.Brintha,Kalasalingam Academy of Research and Education 3)Dr.V.Ajantha Devi,AP3 Solutions 4)Dr. Rajeev Kant,GGSESTC 5)Dr K Sumathi,Sri Sairam Engineering College 6)Dr E Priya,Sri Sairam Engineering College 7)T. Jagadesh,KPR Institute of Engineering and Technology 8)Dr. S. Sugumaran,Vishnu Institute of Technology 9)Ms. Farida Begum. N,Rathinam college of Arts and Science 10)Dr. R. Krishnamoorthy,Sree Sastha Institute of Engineering and Technology</p> <p>(72)Name of Inventor : 1)Dr. Sushma Jaiswal,CSIT, Guru Ghasidas Central University 2)Dr.N.C.Brintha,Kalasalingam Academy of Research and Education 3)Dr.V.Ajantha Devi,AP3 Solutions 4)Dr. Rajeev Kant,GGSESTC 5)Dr K Sumathi,Sri Sairam Engineering College 6)Dr E Priya,Sri Sairam Engineering College 7)T. Jagadesh,KPR Institute of Engineering and Technology 8)Dr. S. Sugumaran,Vishnu Institute of Technology 9)Ms. Farida Begum. N,Rathinam college of Arts and Science 10)Dr. R. Krishnamoorthy,Sree Sastha Institute of Engineering and Technology</p>
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(57) Abstract :

In recent years, multi fold improvement is viewed in the field of Artificial Intelligence hence plays a significant role in image classification especially classification of medical images. In specific Convolutional Neural Networks (CNN) belonging to Artificial Intelligence performs well in detection of several diseases such as heart disease, Dental diseases, Malaria and ParkinsonTMs disease. CNN has significant vision in detection of lung disease utilizing the medical images of the patient such as X-rays. Lung disease is the basic symptom of the global pandemic disease COVID-19. This invention proposes a CNN model for the detection of lung disease where the model involves four layers namely input layers, convolutional layers, fully connected layers and output layers. The three layered two dimensional convolutional layers involves ReLu activation function along with Max pooling making the detection process easier by training the model using dataset. The proposed CNN model provides 97.4% of accuracy and 94.5% of precision. F1 score of the model is achieved as 97.60 and the curve area of Receiver Operating Characteristic (ROC) is obtained as 0.975.

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