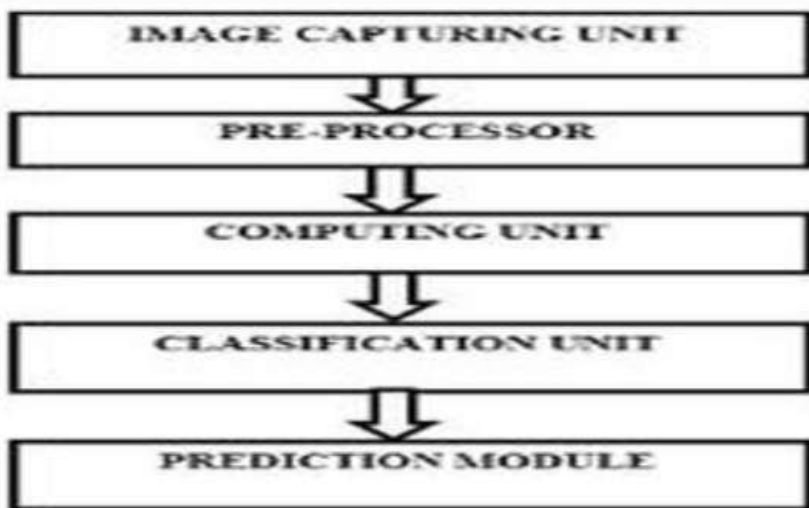


(54) Title of the invention : PULMONARY INFECTION DETECTION SYSTEM

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| (51) International classification | :G06T0007000000, G06K0009620000, G06N0003080000, A61B0007000000, G06N0005040000 | (71)Name of Applicant : 1)CGC Technical Campus Jhanjeri Address of Applicant :State Highway 12A Jhanjeri, Sahibzada Ajit Singh Nagar, Punjab 140307, India. Punjab India |
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(57) Abstract :

A pulmonary infection detection system comprise of an image capturing unit (i.e. scanner, smart phone that is accessed by a practitioner to upload medical image(s) (i.e. X-ray images) , a pre-processor that encompasses cropping of chest region from the image(s) to eliminate unwanted data such as random variations of brightness, a computing unit for extracting radiological feature(s) (i.e. positional and rotational invariant features) related to pulmonary infection via a multi-source deep learning neural protocol from the region and a classification unit that have multiple ensemble classifiers (such as Ada-boost, random forest, decision tree, Naive Bayes but not limited to XGBoost) to classify the feature(s) into normal or abnormal groups and a prediction module for analyzing the feature(s) and groups to forecast the type (i.e. bacterial, viral, fungal, parasitic, atypical, aspiration, eosinophilic) of pulmonary infection.



No. of Pages : 12 No. of Claims : 9