

## Article

# An Effective Method for Lung Cancer Diagnosis from CT Scan Using Deep Learning-Based Support Vector Network

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## Supplementary Material

**Table S1.** Acronyms used in this study.

Acronym	Full Word
AM-FM	Amplitude modulation frequency modulation
ANN	Artificial neural network
CAD	Computer-aided design
CapsNet	Capsule network
CNN	Convolutional neural network
CT	Computer tomography
DCNN	Deep convolutional neural network
DITNN	Deep learning instantaneously train a neural network
DL	Deep learning
DNA	Deoxyribonucleic acid
DIP	Digital image processing
DT	Decision tree
F-CNN	Fast regions with a convolution net
GBM	Gradient boosting machine
GPU	Graphical processing unit
IPCT	Improved profuse clustering technique
KNN	K nearest neighbor
MIP	Maximum projection intensity
ML	Machine learning
NB	Naïve Bayes
PLSR	Partial least squares regression
RBF	Radial basis function
RF	Random Forest
ROI	Region of interest
SVM	Support vector machine



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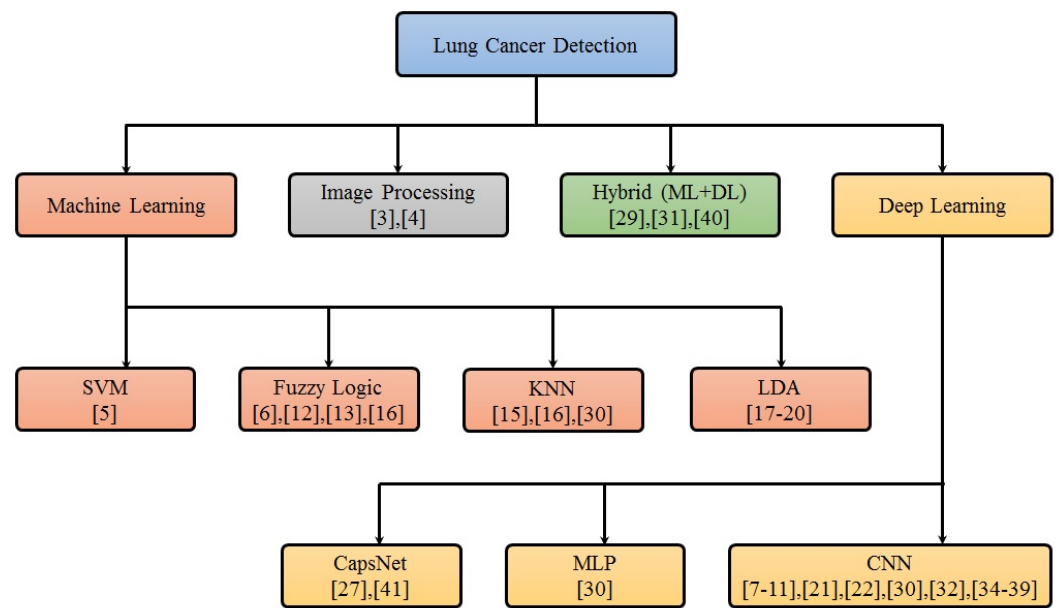
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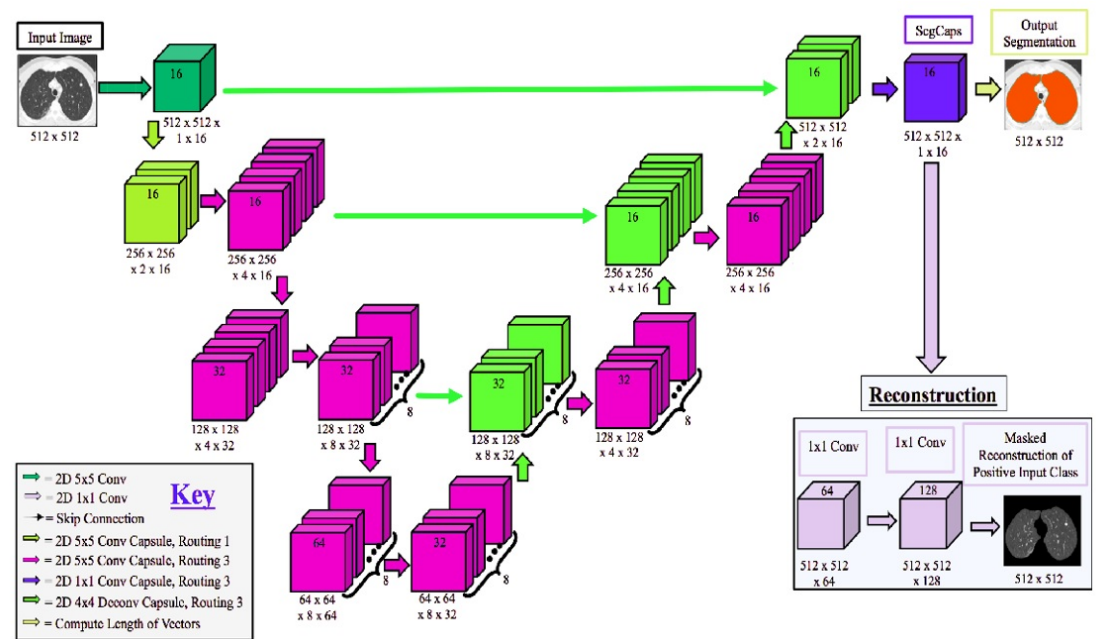
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**Figure S1.** Types of methodologies for lung cancer detection.



**Figure S2.** Capsule network model for lung segmentation.