Title	Year	Main writer	Feature selection	Classifier	Accuracy
WITHOUT Neural Network					
Interstitial Lung Disease Classification Using Feed Forward Neural Networks	2017	A.Dudhane	GLCM + GLRLM + Histogram of LBP codes	two layer feed forward NN	0.9341
Large Margin Local Estimate with Applications to Medical Image Classification	2015	Yang Song	Large Margin Local Estimate : LMLE	Large Margin Local Estimate	0.861
3D Lung Image Retrieval Using Localized Features	2011	A. Depeursinge	content–based image retrieval (CBIR) + 3D localization system	SVM	0.86
Feature-Based Image Patch Approximation for Lung Tissue Classification	2013	Yang Song	rotation-invariant Gabor-local binary patterns (RGLBP) intensity features multi-coordinate histogram of oriented gradients (MCHOG)	SVM , KNN patch-adaptive sparse approximation (PASA)	0.8319
Lung Texture Classification Using Bag of Visual Words	2014	Marina Asherov	path size : 7*7 bag-of-visual-words (BoVW) from histogram	non-linear multi class SVM with histogram intersection kernel	0.79
Lung Texture Classification Using Locally–Oriented Riesz Components	2011	A. Depeursinge	Locally–Oriented Riesz	LOPO CV rbf SVM	0.783
classification of ILD patterns using local DCT features and random forests	2014	Anthimopoulos	Local DCT +Histogram	Random forest	0.7809
Near-Affine-Invariant Texture Learning for Lung Tissue Analysis Using Isotropic Wavelet Frames	2012	A. Depeursinge	tailored WT: isotropic polyharmonic Bspline wavelets deployed as a redundant frame transform with quincunx subsampling. The quantification of the wavelet co-efficients using parameters of a mixture of Gaussians combined with GLH bins in Hus	LOPO CV rbf SVM	0.769
Quantitative analy- sis of pulmonary emphysema using local binary pat- terns	2010	Sorensen	LBP + Histogram	KNN	0.7333
A texton-based	2010	Gangeh	Intensity	SVM-RBF	0.7152
WITH Neural Network					
Differential diagnosis of Interstitial Lung Diseases using Deep Learning	2020	Doddavarapu	CNN model	-	0.9467
ILD via Deep CNNs: Segmentation Label Propagation, Unordered Pooling and Cross-Dataset Learning	2017	Mingchen Gao	deep network : first expand labels in all lung slice then train	-	0.928
Holistic classification of CT attenuation patterns for interstitial lung diseases via deep convolutional neural networks	2016	Mingchen Gao	31*31 to 224*244 and CNN	-	0.911
Multi-Scale Rotation-Invariant Convolutional Neural Networks for Lung Texture Classification	2017	Qiangchang Wang	input : Gabor LBP 3conv + FC + drop out Relu Activation and pooling in every layer	-	0.901
A Perlin noise-based augmentation strategy for deep learning with small data samples of HRCT images	2018	Hyun-Jin Bae	data augmentation with perlin noise and use in FusionNet (CNN)	-	0.879
Quantitative CT analysis in chronic hypersensitivity pneumonitis : a convolutional neural network approach	2020	Lorenzo Aliboni	CNN model	-	0.85
Fusing learned representations from Riesz Filters and Deep CNN for lung tissue classification	2019	Ranveer Joyseeree	1- Riesz features only : acc 0.803 2-CNN only : acc 0.786 3-combine CNN and Riesz: AUC of 0.948	-	0.803
Deep Convolutional Neural Networks for Computer-Aided Detection: CNN Architectures, Dataset Characteristics and Transfer Learning	2016	Hoo-Chang Shin	FIVE-FOLD CV USING GOOGLENET-TL	-	0.768
Medical image classification with the CNN	2014	Li	CNN model	-	0.6705
All on our dataset, i.e. HUG database					
Title	**Year**	**Main writer**	**Feature selection**	**Classifier**	**F1 score**
WITHOUT Neural Network					
Classification of Interstitial Lung Disease Patterns Using Local DCT Features and Random Forest	2014	M. Anthimopoulos	local spectral analysis using a DCT-based filter bank + gray- level histogram values of the original image	Random forest	0.89
Diffuse lung disease classification based on texture features and WELM: TALISMAN	2021	Shyla Raj	Modifiedintuitionisticfuzzylocalbinarypattern(MILBP) + Gaborfilterbank + Greylevelco-occurrencematrix(GLCM)	Weighted Extreme Learning Machine: WELM classifier	0.86
WITH Neural Network					
Interstitial lung disease classification using improved DenseNet	2018	Wenping Guo	small kernel DenseNet (SK-DenseNet)	-	0.984
A deep CNN architecture for ILD pattern classification	2020	Sheng Huang	Transfer learning with CNN and deep convolutional autoencoder (DCAE) Unsupervised learning for unlabled data and augmentation	-	0.96
Multi-source Transfer Learning with CNN for Lung Pattern Analysis	2015	S. Christodoulidis	Ensemble of CNNs with transfer learning of 6 texture datasets and fine tunning on ILD	-	0.88
A Perlin noise-based augmentation strategy for deep learning with small data samples of HRCT images	2018	Hyun-Jin Bae	data augmentation with perlin noise and use in FusionNet (CNN)	-	0.879
Quantitative CT analysis in chronic hypersensitivity pneumonitis : a convolutional neural network approach	2020	Lorenzo Aliboni	CNN model	-	0.85