

PAPER	OBJECTIVE	TECHNIQUE USED	OBSERVATION																																																									
1D_CNN.pdf	Deep learning method to classify ECG signals into 4 categories: normal sinus rhythm (NSR), atrial fibrillation (AF), other types of arrhythmia except AF (OTHER), and noise signal (NOISE).	continuous wavelet transform (CWT) + convolutional neural network (CNN)	<table><tr><th colspan="2" rowspan="2">Performance</th><th colspan="3">Wavelet basis</th></tr><tr><th>Mexh</th><th>Mor</th><th>Cmor</th></tr><tr><td colspan="2">Accuracy</td><td>97.24%</td><td>97.56%</td><td>97.17%</td></tr><tr><td colspan="2">Average sensitivity</td><td>97.24%</td><td>97.56%</td><td>97.16%</td></tr><tr><td colspan="2">Average specificity</td><td>99.08%</td><td>99.19%</td><td>99.06%</td></tr><tr><td rowspan="4">Sensitivity</td><td>NORMAL</td><td>96.61%</td><td>96.61%</td><td>96.50%</td></tr><tr><td>AF</td><td>98.33%</td><td>98.44%</td><td>98.38%</td></tr><tr><td>OTHER</td><td>96.30%</td><td>96.01%</td><td>95.84%</td></tr><tr><td>NOISE</td><td>97.70%</td><td>99.16%</td><td>97.93%</td></tr><tr><td rowspan="4">Specificity</td><td>NORMAL</td><td>99.04%</td><td>99.38%</td><td>99.18%</td></tr><tr><td>AF</td><td>98.88%</td><td>98.58%</td><td>98.58%</td></tr><tr><td>OTHER</td><td>98.68%</td><td>99.15%</td><td>98.89%</td></tr><tr><td>NOISE</td><td>99.72%</td><td>99.65%</td><td>99.59%</td></tr></table>	Performance		Wavelet basis			Mexh	Mor	Cmor	Accuracy		97.24%	97.56%	97.17%	Average sensitivity		97.24%	97.56%	97.16%	Average specificity		99.08%	99.19%	99.06%	Sensitivity	NORMAL	96.61%	96.61%	96.50%	AF	98.33%	98.44%	98.38%	OTHER	96.30%	96.01%	95.84%	NOISE	97.70%	99.16%	97.93%	Specificity	NORMAL	99.04%	99.38%	99.18%	AF	98.88%	98.58%	98.58%	OTHER	98.68%	99.15%	98.89%	NOISE	99.72%	99.65%	99.59%
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CNN_MLP.pdf	Distinguishing between 8 arrhythmias by using multi-layer perceptron (MLP)	multi-layer perceptron (MLP)	The results show the algorithm can make efficient diagnoses of various cardiovascular diseases with 88.7% accuracy																																																									
SDAE_Softmax.pdf	The ECG data is classified by the automatic cardiac arrhythmia classification system using stacked denoising auto encoder	stacked denoising auto encoder (SDAE) + Softmax Classifier	The value of Accuracy, Sensitivity and Specificity for VEB are 94.9% , 83.3% and 93.9% , respectively.																																																									
CNN_MS.pdf	Multiscaled fusion of deep CNN (MS-CNN) to screen out AF recordings from single lead short (ECG) recordings [4 Catagories]	MS-CNN	Accuracy -> 98.13% Sensivity -> 93.77% Specificity -> 98.77%																																																									

<p>CNN_Comparison OfClassifiers.pdf</p>	<p>Deep learning (DL) machine is developed for identifying patients with paroxysmal atrial fibrillation (PAF)</p>	<ul style="list-style-type: none"> • End-to-End CNN • CNN + KNN Classifier • CNN + Linear SVM Classifier • CNN + Gaussian SVM Classifier 	<p>CNN network is capable of Classifying the test subjects with an Accuracy of 85.33%.</p> <p>The highest Accuracy that is obtained for the ECG data is 91%</p> <p>The highest Accuracy that is obtained for the ECG data is 87.67%.</p> <p>The highest Accuracy that is obtained for the ECG data is 90%.</p>
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