Team Id	PNT2022TMID48615
Title	Classification of Arrhythmia by using deep learning with 2-D ECG spectral image representation

LITERATURE SURVEY

SL.NO	TITLE	YEAR OF THE PAPER	AUTHOR	METHODOLOGY USED	MERITS	DEMERITS
1	A modular cluster based collaborative recommender system for cardiac patients	2021	Mustaqeem, A.; Anwar, S.M.; Majid, M	Classification model to identify CVDs.	reduce the mortality rate by providing a timely treatment	A normal heartbeat varies with age, body size, activity, and emotions.
2	Deep Learning for Image Analysis.	2020	Irmakci, I.; Anwar, S.M.; Torigian, D.A.; Bagci, U.	Deep learning techniques - Supervised Learning	It provide significant performance in radiological image analysis	Good performance in radiological image
3	Speech emotion recognition using deep 1D & 2-D CNN LSTM networks	2019	Zhao, J.; Mao, X.; Chen, L	For time series data, 2-D CNNs are proposed .	Represents the sssstime series data in a 2-D format could benefit certain machine learning tasks	Time series maintenance is difficult.

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4.	Fast and accurate deep network learning by exponential linear units	2017	Clevert, D. A.; Unterthiner, T.; Hochreiter, S.	The three primary forms of noise in the ECG signal are power line interference, baseline drift, and electromyographic noise	The noise from the original ECG signal must be removed to ensure that a denoised ECG signal is obtained for further processing.	Only original ECG signal must be removed.
5.	CG arrhythmia classification using a 2-D convolutional neural network	2018	Jun, T.J.; Nguyen, H.M.; Kang, D.; Kim, D.; Kim, D.; Kim, Y.H.	classification algorithms such as SVM, fast Fourier neural network, and tree-based algorithms	The classification of a single image based representation of an ECG signal is always the same	Classification is based only in ECG signal.
6.	ECG arrhythmia classification using transfer learning from 2-dimensional deep CNN features.	2018	Salem, M.; Taheri, S.; Yuan, J.S.	The purpose of generalization, the performance should be tested on larger datasets.	1-D ECG signal is converted to 2-D images for using 2-D CNN models.	Large data sets violates privacy principles. Not useful in short terms.