Existing Models Vs Proposed Models Analysis

Models State of Art Literat	Accuracy	Precisio	Recall	F1 Score	MCC	Remarks
Suresh Kumar an Asha RB (2021)[]	99.23	81.15	76.19	78.59	80.255	• Direct usage of highly unbalanced dataset leads to high accuracy.
Saurabh Dubey, Ke Mundhe& Aditya A (2020) []	99.2	99.96	99.96	99.96	81.46	• No data preprocessing is done; directly using the imbalanced data leading to model overfitting (model will always consider every transaction as legitimate). • Model is overfitted can be predicted from the curve provided. • Only 10% of the dataset is taken for testing purpose.
Khalid, Ahmad, Mothann& Omar (2021) []	95.3	95.2	95.55	95.55	-	• The dataset is divided into (70%) Training and (30%) Testing data, are used for training and validating the model. The testing data used for evaluating the model.
Proposed Model:						
Model1	97.77589	99.5902	95.9183	97.7198	95.61482	• In the proposed models, the dataset is processed and balanced before training the model. • Early stopping during training process and one dropout layer is introduced between hidden layers to stop overfitting or underfitt model. • The number of neurons is optimised in the hidden layers for bette performance.
Model2	97.790025	99.6049	95.9183	97.73398	95.6441	
Model3	98.5408	99.09365	97.9591	98.52315	97.08759	
Model4	94.7603	99.6213	89.79591	94.4537	89.94749	