

## RESULT:

### ➤ Spearman Technique:

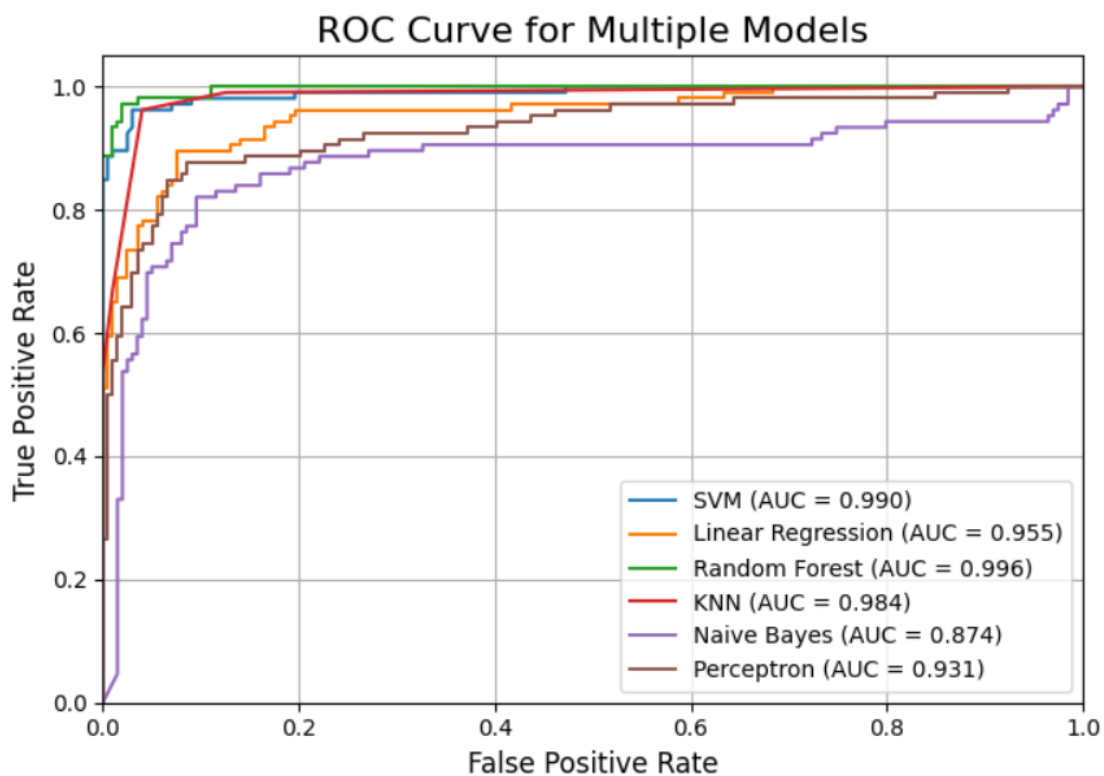
Method Name	K=16	K=23	K=30	K=35
Chi-Square	67.81	63.89	88.96	89.40
Relief	77.01	79.76	44.54	82.04
Mrmr	86.85	65.00	73.40	88.41
Pearson	87.79	63.38	52.20	75.26
Ensemble	88.29	87.67	85.50	84.28

### ➤ Kendall Technique:

Method Name	K=16	K=23	K=30	K=35
Chi-Square	57.98	56.40	75.52	76.76
Relief	67.36	67.81	37.88	67.45
Mrmr	76.41	52.93	59.17	74.25
Pearson	76.98	52.06	41.35	60.71
Ensemble	77.48	74.79	72.29	69.67

## Parameteric values of different ML models with ensemble features:

Model	Accuracy	Precision	Recall	F1 Score	AUC Score
SVM	0.948 (94.8%)	0.948 (94.8%)	0.948 (94.8%)	0.947 (94.7%)	0.990 (99.0%)
Linear Regression	0.885 (88.5%)	0.888 (88.8%)	0.885 (88.5%)	0.882 (88.2%)	0.955 (95.5%)
Random Forest	0.961 (96.1%)	0.963 (96.3%)	0.961 (96.1%)	0.960 (96.0%)	0.996 (99.6%)
KNN	0.879 (87.9%)	0.892 (89.2%)	0.879 (87.9%)	0.872 (87.2%)	0.984 (98.4%)
Naive Bayes	0.852 (85.2%)	0.856 (85.6%)	0.852 (85.2%)	0.846 (84.6%)	0.874 (87.4%)
Perceptron	0.902 (90.2%)	0.901 (90.1%)	0.902 (90.2%)	0.901 (90.1%)	0.931 (93.1%)



### ➤ Models with highest metrics:

Highest Accuracy: Random Forest with 0.961 (96.1%)

Highest Precision: Random Forest with 0.963 (96.3%)

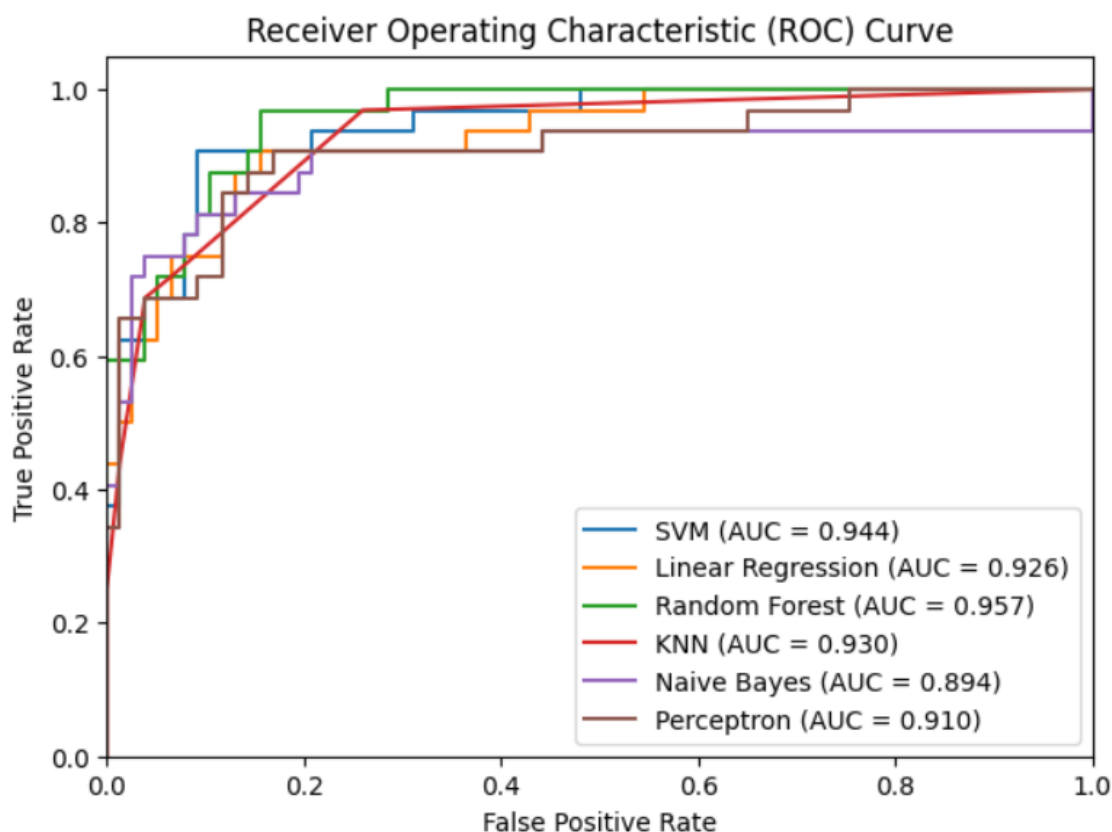
Highest Recall: Random Forest with 0.961 (96.1%)

Highest F1 Score: Random Forest with 0.960 (96.0%)

Highest AUC Score: Random Forest with 0.996 (99.6%)

## Parameteric values of different ML models without ensemble features:

Model	Accuracy	Precision	Recall	F1 Score	AUC Score
SVM	0.862 (86.2%)	0.863 (86.3%)	0.862 (86.2%)	0.855 (85.5%)	0.944 (94.4%)
Linear Regression	0.872 (87.2%)	0.870 (87.0%)	0.872 (87.2%)	0.867 (86.7%)	0.926 (92.6%)
Random Forest	0.872 (87.2%)	0.870 (87.0%)	0.872 (87.2%)	0.867 (86.7%)	0.957 (95.7%)
KNN	0.881 (88.1%)	0.881 (88.1%)	0.881 (88.1%)	0.876 (87.6%)	0.930 (93.0%)
Naive Bayes	0.872 (87.2%)	0.874 (87.4%)	0.872 (87.2%)	0.873 (87.3%)	0.894 (89.4%)
Perceptron	0.835 (83.5%)	0.835 (83.5%)	0.835 (83.5%)	0.835 (83.5%)	0.910 (91.0%)



## ❖ Models with highest metrics:

Highest Accuracy: KNN with 0.881 (88.1%)

Highest Precision: KNN with 0.881 (88.1%)

Highest Recall: KNN with 0.881 (88.1%)

Highest F1 Score: KNN with 0.876 (87.6%)

Highest AUC Score: Random Forest with 0.957 (95.7%)