\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 50 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.96 0.93 0.95 146

1 0.47 0.64 0.55 14

accuracy 0.91 160

macro avg 0.72 0.79 0.75 160

weighted avg 0.92 0.91 0.91 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.84 0.91 146

1 0.34 0.86 0.49 14

accuracy 0.84 160

macro avg 0.66 0.85 0.70 160

weighted avg 0.93 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.38 0.55 146

1 0.13 0.93 0.22 14

accuracy 0.43 160

macro avg 0.55 0.66 0.39 160

weighted avg 0.91 0.43 0.52 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.21 0.35 146

1 0.10 0.93 0.18 14

accuracy 0.28 160

macro avg 0.54 0.57 0.27 160

weighted avg 0.89 0.28 0.33 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.94 146

1 0.45 1.00 0.62 14

accuracy 0.89 160

macro avg 0.73 0.94 0.78 160

weighted avg 0.95 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 100 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.95 0.97 146

1 0.61 0.79 0.69 14

accuracy 0.94 160

macro avg 0.79 0.87 0.83 160

weighted avg 0.95 0.94 0.94 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.85 0.91 146

1 0.33 0.79 0.47 14

accuracy 0.84 160

macro avg 0.65 0.82 0.69 160

weighted avg 0.92 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.34 0.51 146

1 0.12 0.93 0.21 14

accuracy 0.39 160

macro avg 0.55 0.64 0.36 160

weighted avg 0.91 0.39 0.48 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 1.00 0.22 0.36 146

1 0.11 1.00 0.20 14

accuracy 0.29 160

macro avg 0.55 0.61 0.28 160

weighted avg 0.92 0.29 0.35 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.90 0.95 146

1 0.48 1.00 0.65 14

accuracy 0.91 160

macro avg 0.74 0.95 0.80 160

weighted avg 0.95 0.91 0.92 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 150 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 1.00 0.93 0.96 146

1 0.58 1.00 0.74 14

accuracy 0.94 160

macro avg 0.79 0.97 0.85 160

weighted avg 0.96 0.94 0.94 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.86 0.91 146

1 0.32 0.71 0.44 14

accuracy 0.84 160

macro avg 0.65 0.79 0.68 160

weighted avg 0.91 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.95 0.96 146

1 0.59 0.71 0.65 14

accuracy 0.93 160

macro avg 0.78 0.83 0.80 160

weighted avg 0.94 0.93 0.93 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.34 0.50 146

1 0.12 0.93 0.21 14

accuracy 0.39 160

macro avg 0.55 0.63 0.35 160

weighted avg 0.90 0.39 0.47 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.25 0.39 146

1 0.11 0.93 0.19 14

accuracy 0.31 160

macro avg 0.54 0.59 0.29 160

weighted avg 0.90 0.31 0.38 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.93 146

1 0.44 1.00 0.61 14

accuracy 0.89 160

macro avg 0.72 0.94 0.77 160

weighted avg 0.95 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 200 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.93 0.95 146

1 0.52 0.79 0.63 14

accuracy 0.92 160

macro avg 0.75 0.86 0.79 160

weighted avg 0.94 0.92 0.93 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.84 0.90 146

1 0.29 0.71 0.42 14

accuracy 0.82 160

macro avg 0.63 0.77 0.66 160

weighted avg 0.91 0.82 0.86 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.38 0.54 146

1 0.12 0.93 0.22 14

accuracy 0.42 160

macro avg 0.55 0.65 0.38 160

weighted avg 0.91 0.42 0.52 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.20 0.33 146

1 0.10 0.93 0.18 14

accuracy 0.26 160

macro avg 0.53 0.56 0.26 160

weighted avg 0.89 0.26 0.32 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.86 0.93 146

1 0.41 1.00 0.58 14

accuracy 0.88 160

macro avg 0.71 0.93 0.75 160

weighted avg 0.95 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 250 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.94 0.96 146

1 0.55 0.79 0.65 14

accuracy 0.93 160

macro avg 0.76 0.86 0.80 160

weighted avg 0.94 0.93 0.93 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.84 0.90 146

1 0.33 0.86 0.48 14

accuracy 0.84 160

macro avg 0.66 0.85 0.69 160

weighted avg 0.93 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.35 0.52 146

1 0.12 0.93 0.21 14

accuracy 0.40 160

macro avg 0.55 0.64 0.36 160

weighted avg 0.91 0.40 0.49 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 1.00 0.15 0.26 146

1 0.10 1.00 0.18 14

accuracy 0.23 160

macro avg 0.55 0.58 0.22 160

weighted avg 0.92 0.23 0.26 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.86 0.92 146

1 0.40 1.00 0.57 14

accuracy 0.87 160

macro avg 0.70 0.93 0.75 160

weighted avg 0.95 0.87 0.89 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 300 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.96 0.90 0.93 146

1 0.39 0.64 0.49 14

accuracy 0.88 160

macro avg 0.68 0.77 0.71 160

weighted avg 0.91 0.88 0.89 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.84 0.90 146

1 0.31 0.79 0.45 14

accuracy 0.83 160

macro avg 0.65 0.81 0.67 160

weighted avg 0.92 0.83 0.86 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.99 0.96 0.97 146

1 0.67 0.86 0.75 14

accuracy 0.95 160

macro avg 0.83 0.91 0.86 160

weighted avg 0.96 0.95 0.95 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.38 0.54 146

1 0.12 0.93 0.22 14

accuracy 0.42 160

macro avg 0.55 0.65 0.38 160

weighted avg 0.91 0.42 0.52 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.23 0.37 146

1 0.10 0.93 0.19 14

accuracy 0.29 160

macro avg 0.54 0.58 0.28 160

weighted avg 0.89 0.29 0.35 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.89 0.94 146

1 0.45 0.93 0.60 14

accuracy 0.89 160

macro avg 0.72 0.91 0.77 160

weighted avg 0.94 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 350 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.86 0.91 146

1 0.33 0.71 0.45 14

accuracy 0.85 160

macro avg 0.65 0.79 0.68 160

weighted avg 0.91 0.85 0.87 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.87 0.92 146

1 0.34 0.71 0.47 14

accuracy 0.86 160

macro avg 0.66 0.79 0.69 160

weighted avg 0.91 0.86 0.88 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.97 0.97 146

1 0.67 0.71 0.69 14

accuracy 0.94 160

macro avg 0.82 0.84 0.83 160

weighted avg 0.95 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.40 0.57 146

1 0.13 0.93 0.23 14

accuracy 0.45 160

macro avg 0.56 0.67 0.40 160

weighted avg 0.91 0.45 0.54 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.20 0.33 146

1 0.10 0.93 0.18 14

accuracy 0.26 160

macro avg 0.53 0.56 0.26 160

weighted avg 0.89 0.26 0.32 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.86 0.92 146

1 0.38 0.93 0.54 14

accuracy 0.86 160

macro avg 0.69 0.89 0.73 160

weighted avg 0.94 0.86 0.89 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 400 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.90 0.94 146

1 0.44 0.79 0.56 14

accuracy 0.89 160

macro avg 0.71 0.84 0.75 160

weighted avg 0.93 0.89 0.91 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.84 0.91 146

1 0.34 0.86 0.49 14

accuracy 0.84 160

macro avg 0.66 0.85 0.70 160

weighted avg 0.93 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.96 0.37 0.53 146

1 0.12 0.86 0.20 14

accuracy 0.41 160

macro avg 0.54 0.61 0.37 160

weighted avg 0.89 0.41 0.51 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.21 0.35 146

1 0.10 0.93 0.18 14

accuracy 0.28 160

macro avg 0.54 0.57 0.27 160

weighted avg 0.89 0.28 0.33 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.93 146

1 0.44 1.00 0.61 14

accuracy 0.89 160

macro avg 0.72 0.94 0.77 160

weighted avg 0.95 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 450 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.89 0.93 146

1 0.38 0.71 0.50 14

accuracy 0.88 160

macro avg 0.68 0.80 0.71 160

weighted avg 0.92 0.88 0.89 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.86 0.91 146

1 0.33 0.71 0.45 14

accuracy 0.85 160

macro avg 0.65 0.79 0.68 160

weighted avg 0.91 0.85 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.93 0.95 146

1 0.50 0.71 0.59 14

accuracy 0.91 160

macro avg 0.74 0.82 0.77 160

weighted avg 0.93 0.91 0.92 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.96 0.38 0.54 146

1 0.12 0.86 0.21 14

accuracy 0.42 160

macro avg 0.54 0.62 0.37 160

weighted avg 0.89 0.42 0.51 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.21 0.34 146

1 0.10 0.93 0.18 14

accuracy 0.27 160

macro avg 0.53 0.57 0.26 160

weighted avg 0.89 0.27 0.33 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.93 146

1 0.44 1.00 0.61 14

accuracy 0.89 160

macro avg 0.72 0.94 0.77 160

weighted avg 0.95 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 500 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.96 0.88 0.92 146

1 0.35 0.64 0.45 14

accuracy 0.86 160

macro avg 0.65 0.76 0.69 160

weighted avg 0.91 0.86 0.88 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.82 0.90 146

1 0.32 0.86 0.46 14

accuracy 0.82 160

macro avg 0.65 0.84 0.68 160

weighted avg 0.93 0.82 0.86 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.99 0.97 0.98 146

1 0.71 0.86 0.77 14

accuracy 0.96 160

macro avg 0.85 0.91 0.87 160

weighted avg 0.96 0.96 0.96 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.36 0.53 146

1 0.12 0.93 0.22 14

accuracy 0.41 160

macro avg 0.55 0.65 0.37 160

weighted avg 0.91 0.41 0.50 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 1.00 0.18 0.30 146

1 0.10 1.00 0.19 14

accuracy 0.25 160

macro avg 0.55 0.59 0.25 160

weighted avg 0.92 0.25 0.29 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.93 146

1 0.44 1.00 0.61 14

accuracy 0.89 160

macro avg 0.72 0.94 0.77 160

weighted avg 0.95 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 550 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.96 146

1 0.60 0.64 0.62 14

accuracy 0.93 160

macro avg 0.78 0.80 0.79 160

weighted avg 0.93 0.93 0.93 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.87 0.92 146

1 0.34 0.71 0.47 14

accuracy 0.86 160

macro avg 0.66 0.79 0.69 160

weighted avg 0.91 0.86 0.88 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.40 0.56 146

1 0.12 0.86 0.21 14

accuracy 0.44 160

macro avg 0.54 0.63 0.39 160

weighted avg 0.89 0.44 0.53 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.24 0.38 146

1 0.10 0.93 0.19 14

accuracy 0.30 160

macro avg 0.54 0.58 0.29 160

weighted avg 0.90 0.30 0.37 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.86 0.92 146

1 0.38 0.93 0.54 14

accuracy 0.86 160

macro avg 0.69 0.89 0.73 160

weighted avg 0.94 0.86 0.89 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 600 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.94 146

1 0.45 1.00 0.62 14

accuracy 0.89 160

macro avg 0.73 0.94 0.78 160

weighted avg 0.95 0.89 0.91 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.84 0.91 146

1 0.34 0.86 0.49 14

accuracy 0.84 160

macro avg 0.66 0.85 0.70 160

weighted avg 0.93 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.93 0.95 146

1 0.50 0.71 0.59 14

accuracy 0.91 160

macro avg 0.74 0.82 0.77 160

weighted avg 0.93 0.91 0.92 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.38 0.55 146

1 0.13 0.93 0.22 14

accuracy 0.43 160

macro avg 0.55 0.66 0.39 160

weighted avg 0.91 0.43 0.52 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.96 0.16 0.27 146

1 0.10 0.93 0.17 14

accuracy 0.23 160

macro avg 0.53 0.54 0.22 160

weighted avg 0.88 0.23 0.26 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.88 0.93 146

1 0.42 0.93 0.58 14

accuracy 0.88 160

macro avg 0.71 0.90 0.75 160

weighted avg 0.94 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 650 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.96 0.94 0.95 146

1 0.50 0.64 0.56 14

accuracy 0.91 160

macro avg 0.73 0.79 0.76 160

weighted avg 0.92 0.91 0.92 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.99 0.79 0.88 146

1 0.30 0.93 0.46 14

accuracy 0.81 160

macro avg 0.65 0.86 0.67 160

weighted avg 0.93 0.81 0.84 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.38 0.54 146

1 0.12 0.93 0.22 14

accuracy 0.42 160

macro avg 0.55 0.65 0.38 160

weighted avg 0.91 0.42 0.52 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.20 0.33 146

1 0.10 0.93 0.18 14

accuracy 0.26 160

macro avg 0.53 0.56 0.26 160

weighted avg 0.89 0.26 0.32 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.86 0.93 146

1 0.41 1.00 0.58 14

accuracy 0.88 160

macro avg 0.71 0.93 0.75 160

weighted avg 0.95 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 700 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.89 0.93 146

1 0.41 0.79 0.54 14

accuracy 0.88 160

macro avg 0.69 0.84 0.73 160

weighted avg 0.93 0.88 0.90 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.82 0.89 146

1 0.31 0.86 0.45 14

accuracy 0.82 160

macro avg 0.65 0.84 0.67 160

weighted avg 0.92 0.82 0.85 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.99 0.96 0.97 146

1 0.67 0.86 0.75 14

accuracy 0.95 160

macro avg 0.83 0.91 0.86 160

weighted avg 0.96 0.95 0.95 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.40 0.57 146

1 0.13 0.93 0.23 14

accuracy 0.44 160

macro avg 0.56 0.66 0.40 160

weighted avg 0.91 0.44 0.54 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.23 0.38 146

1 0.10 0.93 0.19 14

accuracy 0.29 160

macro avg 0.54 0.58 0.28 160

weighted avg 0.90 0.29 0.36 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.88 0.93 146

1 0.43 0.93 0.59 14

accuracy 0.89 160

macro avg 0.71 0.91 0.76 160

weighted avg 0.94 0.89 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 750 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.91 0.94 146

1 0.46 0.79 0.58 14

accuracy 0.90 160

macro avg 0.72 0.85 0.76 160

weighted avg 0.93 0.90 0.91 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.90 0.94 146

1 0.42 0.79 0.55 14

accuracy 0.89 160

macro avg 0.70 0.84 0.74 160

weighted avg 0.93 0.89 0.90 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.99 0.96 0.97 146

1 0.67 0.86 0.75 14

accuracy 0.95 160

macro avg 0.83 0.91 0.86 160

weighted avg 0.96 0.95 0.95 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.32 0.48 146

1 0.12 0.93 0.21 14

accuracy 0.38 160

macro avg 0.55 0.63 0.35 160

weighted avg 0.90 0.38 0.46 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 1.00 0.20 0.33 146

1 0.11 1.00 0.19 14

accuracy 0.27 160

macro avg 0.55 0.60 0.26 160

weighted avg 0.92 0.27 0.32 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.88 0.93 146

1 0.42 0.93 0.58 14

accuracy 0.88 160

macro avg 0.71 0.90 0.75 160

weighted avg 0.94 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 800 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.89 0.93 146

1 0.41 0.79 0.54 14

accuracy 0.88 160

macro avg 0.69 0.84 0.73 160

weighted avg 0.93 0.88 0.90 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.84 0.90 146

1 0.32 0.79 0.46 14

accuracy 0.84 160

macro avg 0.65 0.81 0.68 160

weighted avg 0.92 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.94 0.95 146

1 0.53 0.71 0.61 14

accuracy 0.92 160

macro avg 0.75 0.83 0.78 160

weighted avg 0.93 0.92 0.92 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.40 0.56 146

1 0.12 0.86 0.21 14

accuracy 0.44 160

macro avg 0.54 0.63 0.39 160

weighted avg 0.89 0.44 0.53 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.21 0.34 146

1 0.10 0.93 0.18 14

accuracy 0.27 160

macro avg 0.53 0.57 0.26 160

weighted avg 0.89 0.27 0.33 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.87 0.93 146

1 0.42 1.00 0.60 14

accuracy 0.88 160

macro avg 0.71 0.93 0.76 160

weighted avg 0.95 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 850 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.95 0.96 146

1 0.56 0.64 0.60 14

accuracy 0.93 160

macro avg 0.76 0.80 0.78 160

weighted avg 0.93 0.93 0.93 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.99 0.80 0.89 146

1 0.31 0.93 0.46 14

accuracy 0.81 160

macro avg 0.65 0.86 0.68 160

weighted avg 0.93 0.81 0.85 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.99 0.96 0.97 146

1 0.67 0.86 0.75 14

accuracy 0.95 160

macro avg 0.83 0.91 0.86 160

weighted avg 0.96 0.95 0.95 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.39 0.56 146

1 0.13 0.93 0.22 14

accuracy 0.44 160

macro avg 0.56 0.66 0.39 160

weighted avg 0.91 0.44 0.53 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.21 0.35 146

1 0.10 0.93 0.18 14

accuracy 0.28 160

macro avg 0.54 0.57 0.27 160

weighted avg 0.89 0.28 0.33 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.93 146

1 0.44 1.00 0.61 14

accuracy 0.89 160

macro avg 0.72 0.94 0.77 160

weighted avg 0.95 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 900 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.92 0.95 146

1 0.48 0.79 0.59 14

accuracy 0.91 160

macro avg 0.73 0.85 0.77 160

weighted avg 0.93 0.91 0.92 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.86 0.91 146

1 0.32 0.71 0.44 14

accuracy 0.84 160

macro avg 0.65 0.79 0.68 160

weighted avg 0.91 0.84 0.87 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.94 0.95 146

1 0.53 0.71 0.61 14

accuracy 0.92 160

macro avg 0.75 0.83 0.78 160

weighted avg 0.93 0.92 0.92 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.96 0.38 0.54 146

1 0.12 0.86 0.21 14

accuracy 0.42 160

macro avg 0.54 0.62 0.37 160

weighted avg 0.89 0.42 0.51 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 1.00 0.21 0.34 146

1 0.11 1.00 0.19 14

accuracy 0.28 160

macro avg 0.55 0.60 0.27 160

weighted avg 0.92 0.28 0.33 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.87 0.93 146

1 0.42 1.00 0.60 14

accuracy 0.88 160

macro avg 0.71 0.93 0.76 160

weighted avg 0.95 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 950 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.97 0.97 146

1 0.69 0.64 0.67 14

accuracy 0.94 160

macro avg 0.83 0.81 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.84 0.90 146

1 0.30 0.71 0.43 14

accuracy 0.83 160

macro avg 0.64 0.78 0.66 160

weighted avg 0.91 0.83 0.86 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.97 0.97 146

1 0.67 0.71 0.69 14

accuracy 0.94 160

macro avg 0.82 0.84 0.83 160

weighted avg 0.95 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.39 0.56 146

1 0.12 0.86 0.21 14

accuracy 0.43 160

macro avg 0.54 0.62 0.38 160

weighted avg 0.89 0.43 0.53 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.96 0.18 0.31 146

1 0.10 0.93 0.18 14

accuracy 0.25 160

macro avg 0.53 0.56 0.24 160

weighted avg 0.89 0.25 0.30 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.86 0.93 146

1 0.41 1.00 0.58 14

accuracy 0.88 160

macro avg 0.71 0.93 0.75 160

weighted avg 0.95 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 1000 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.95 0.96 146

1 0.59 0.71 0.65 14

accuracy 0.93 160

macro avg 0.78 0.83 0.80 160

weighted avg 0.94 0.93 0.93 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.81 0.88 146

1 0.28 0.79 0.42 14

accuracy 0.81 160

macro avg 0.63 0.80 0.65 160

weighted avg 0.91 0.81 0.84 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.42 0.59 146

1 0.13 0.93 0.23 14

accuracy 0.46 160

macro avg 0.56 0.67 0.41 160

weighted avg 0.91 0.46 0.56 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.96 0.18 0.31 146

1 0.10 0.93 0.18 14

accuracy 0.25 160

macro avg 0.53 0.56 0.24 160

weighted avg 0.89 0.25 0.30 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.88 0.93 146

1 0.42 0.93 0.58 14

accuracy 0.88 160

macro avg 0.71 0.90 0.75 160

weighted avg 0.94 0.88 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 1050 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.97 0.97 146

1 0.64 0.64 0.64 14

accuracy 0.94 160

macro avg 0.80 0.80 0.80 160

weighted avg 0.94 0.94 0.94 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.87 0.92 146

1 0.39 0.86 0.53 14

accuracy 0.87 160

macro avg 0.69 0.86 0.73 160

weighted avg 0.93 0.87 0.89 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.36 0.53 146

1 0.12 0.93 0.22 14

accuracy 0.41 160

macro avg 0.55 0.65 0.37 160

weighted avg 0.91 0.41 0.50 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.22 0.36 146

1 0.10 0.93 0.18 14

accuracy 0.28 160

macro avg 0.54 0.57 0.27 160

weighted avg 0.89 0.28 0.34 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.85 0.92 146

1 0.39 1.00 0.56 14

accuracy 0.86 160

macro avg 0.69 0.92 0.74 160

weighted avg 0.95 0.86 0.89 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 1100 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.97 0.95 0.96 146

1 0.53 0.64 0.58 14

accuracy 0.92 160

macro avg 0.75 0.79 0.77 160

weighted avg 0.93 0.92 0.92 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.82 0.90 146

1 0.32 0.86 0.46 14

accuracy 0.82 160

macro avg 0.65 0.84 0.68 160

weighted avg 0.93 0.82 0.86 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.96 0.97 146

1 0.62 0.71 0.67 14

accuracy 0.94 160

macro avg 0.80 0.84 0.82 160

weighted avg 0.94 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.40 0.57 146

1 0.13 0.93 0.23 14

accuracy 0.44 160

macro avg 0.56 0.66 0.40 160

weighted avg 0.91 0.44 0.54 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.21 0.35 146

1 0.10 0.93 0.18 14

accuracy 0.28 160

macro avg 0.54 0.57 0.27 160

weighted avg 0.89 0.28 0.33 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 0.99 0.88 0.93 146

1 0.43 0.93 0.59 14

accuracy 0.89 160

macro avg 0.71 0.91 0.76 160

weighted avg 0.94 0.89 0.90 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 1150 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.91 0.94 146

1 0.46 0.79 0.58 14

accuracy 0.90 160

macro avg 0.72 0.85 0.76 160

weighted avg 0.93 0.90 0.91 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.87 0.92 146

1 0.39 0.86 0.53 14

accuracy 0.87 160

macro avg 0.69 0.86 0.73 160

weighted avg 0.93 0.87 0.89 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.97 0.97 146

1 0.67 0.71 0.69 14

accuracy 0.94 160

macro avg 0.82 0.84 0.83 160

weighted avg 0.95 0.94 0.94 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.40 0.57 146

1 0.13 0.93 0.23 14

accuracy 0.45 160

macro avg 0.56 0.67 0.40 160

weighted avg 0.91 0.45 0.54 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 0.97 0.19 0.32 146

1 0.10 0.93 0.18 14

accuracy 0.26 160

macro avg 0.53 0.56 0.25 160

weighted avg 0.89 0.26 0.31 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.88 0.93 146

1 0.44 1.00 0.61 14

accuracy 0.89 160

macro avg 0.72 0.94 0.77 160

weighted avg 0.95 0.89 0.91 160

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Iterations : 1200 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Classifier+Smote + SVD AdaBoost3

precision recall f1-score support

0 1.00 0.84 0.91 146

1 0.38 1.00 0.55 14

accuracy 0.86 160

macro avg 0.69 0.92 0.73 160

weighted avg 0.95 0.86 0.88 160

Classifier +Smote + PCA AdaBoost3

precision recall f1-score support

0 0.98 0.88 0.93 146

1 0.40 0.86 0.55 14

accuracy 0.88 160

macro avg 0.69 0.87 0.74 160

weighted avg 0.93 0.88 0.89 160

Classifier + Chi+ SMOTE AdaBoost3

precision recall f1-score support

0 0.97 0.93 0.95 146

1 0.50 0.71 0.59 14

accuracy 0.91 160

macro avg 0.74 0.82 0.77 160

weighted avg 0.93 0.91 0.92 160

Classifier + SVD AdaBoost3

precision recall f1-score support

0 0.98 0.41 0.58 146

1 0.13 0.93 0.23 14

accuracy 0.46 160

macro avg 0.56 0.67 0.40 160

weighted avg 0.91 0.46 0.55 160

Classifier + PCA AdaBoost3

precision recall f1-score support

0 1.00 0.22 0.36 146

1 0.11 1.00 0.20 14

accuracy 0.29 160

macro avg 0.55 0.61 0.28 160

weighted avg 0.92 0.29 0.35 160

Classifier + Chi AdaBoost3

precision recall f1-score support

0 1.00 0.87 0.93 146

1 0.42 1.00 0.60 14

accuracy 0.88 160

macro avg 0.71 0.93 0.76 160

weighted avg 0.95 0.88 0.90 160