**Time - Frequency Domain – Alpha – Dominance**

**NaiveBayes classifier**

**- Filter:** Partition membership (Random Tree)

Correctly Classified Instances 871 68.0469 %

Incorrectly Classified Instances 409 31.9531 %

Kappa statistic 0.344

Mean absolute error 0.331

Root mean squared error 0.5318

Relative absolute error 68.452 %

Root relative squared error 108.1535 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,713 0,366 0,737 0,713 0,725 0,344 0,712 0,765 1

0,634 0,287 0,605 0,634 0,619 0,344 0,712 0,585 0

Weighted Avg. 0,680 0,334 0,683 0,680 0,682 0,344 0,712 0,691

=== Confusion Matrix ===

a b <-- classified as

539 217 | a = 1

192 332 | b = 0

**SVM(SMO) Classifier**

**- Filter:** Partition membership (Random Tree)

**- Classifier:** SMO(Sequential minimal optimization)

- **FilterType**: Standardize training data

- **Kernel:** PUK

Correctly Classified Instances 1250 97.6563 %

Incorrectly Classified Instances 30 2.3438 %

Kappa statistic 0.9511

Mean absolute error 0.0234

Root mean squared error 0.1531

Relative absolute error 4.8464 %

Root relative squared error 31.1341 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

1,000 0,057 0,962 1,000 0,981 0,952 0,971 0,962 1

0,943 0,000 1,000 0,943 0,971 0,952 0,971 0,966 0

Weighted Avg. 0,977 0,034 0,977 0,977 0,976 0,952 0,971 0,964

=== Confusion Matrix ===

a b <-- classified as

756 0 | a = 1

30 494 | b = 0

**İBK Classifier**

- **Filter:** Partition membership (Random Tree)

Correctly Classified Instances 1215 94.9219 %

Incorrectly Classified Instances 65 5.0781 %

Kappa statistic 0.8953

Mean absolute error 0.051

Root mean squared error 0.2234

Relative absolute error 10.5495 %

Root relative squared error 45.4422 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,951 0,053 0,963 0,951 0,957 0,895 0,968 0,975 1

0,947 0,049 0,931 0,947 0,939 0,895 0,968 0,939 0

Weighted Avg. 0,949 0,052 0,949 0,949 0,949 0,895 0,968 0,960

=== Confusion Matrix ===

a b <-- classified as

719 37 | a = 1

28 496 | b = 0

**RandomForest Classifier**

- **Filter:** Partition membership (Random Tree)

Correctly Classified Instances 1219 95.2344 %

Incorrectly Classified Instances 61 4.7656 %

Kappa statistic 0.9017

Mean absolute error 0.0698

Root mean squared error 0.1865

Relative absolute error 14.4391 %

Root relative squared error 37.9333 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,955 0,052 0,964 0,955 0,959 0,902 0,992 0,994 1

0,948 0,045 0,936 0,948 0,942 0,902 0,992 0,989 0

Weighted Avg. 0,952 0,049 0,952 0,952 0,952 0,902 0,992 0,992

=== Confusion Matrix ===

a b <-- classified as

722 34 | a = 1

27 497 | b = 0

**Time-Frequency Domain – Beta – Dominance**

**NaiveBayes classifier**

**- Filter:** Partition membership (Random Tree)

Correctly Classified Instances 864 67.5 %

Incorrectly Classified Instances 416 32.5 %

Kappa statistic 0.341

Mean absolute error 0.3385

Root mean squared error 0.5276

Relative absolute error 69.9934 %

Root relative squared error 107.3056 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,680 0,332 0,747 0,680 0,712 0,343 0,720 0,796 1

0,668 0,320 0,591 0,668 0,627 0,343 0,720 0,579 0

Weighted Avg. 0,675 0,327 0,683 0,675 0,677 0,343 0,720 0,707

=== Confusion Matrix ===

a b <-- classified as

514 242 | a = 1

174 350 | b = 0

**SVM(SMO) Classifier**

**- Filter:** Partition membership (Random Tree)

**- Classifier:** SMO(Sequential minimal optimization)

- **FilterType**: Standardize training data

- **Kernel:** PUK

Correctly Classified Instances 1246 97.3438 %

Incorrectly Classified Instances 34 2.6563 %

Kappa statistic 0.9445

Mean absolute error 0.0266

Root mean squared error 0.163

Relative absolute error 5.4926 %

Root relative squared error 33.1448 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

1,000 0,065 0,957 1,000 0,978 0,946 0,968 0,957 1

0,935 0,000 1,000 0,935 0,966 0,946 0,968 0,962 0

Weighted Avg. 0,973 0,038 0,975 0,973 0,973 0,946 0,968 0,959

=== Confusion Matrix ===

a b <-- classified as

756 0 | a = 1

34 490 | b = 0

**İBK Classifier**

- **Filter:** Partition membership (Random Tree)

Correctly Classified Instances 1212 94.6875 %

Incorrectly Classified Instances 68 5.3125 %

Kappa statistic 0.8901

Mean absolute error 0.053

Root mean squared error 0.2292

Relative absolute error 10.9604 %

Root relative squared error 46.6088 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,955 0,065 0,955 0,955 0,955 0,890 0,974 0,977 1

0,935 0,045 0,935 0,935 0,935 0,890 0,974 0,949 0

Weighted Avg. 0,947 0,057 0,947 0,947 0,947 0,890 0,974 0,965

=== Confusion Matrix ===

a b <-- classified as

722 34 | a = 1

34 490 | b = 0

**RandomForest Classifier**

- **Filter:** Partition membership (Random Tree)

Correctly Classified Instances 1215 94.9219 %

Incorrectly Classified Instances 65 5.0781 %

Kappa statistic 0.895

Mean absolute error 0.0694

Root mean squared error 0.1884

Relative absolute error 14.3502 %

Root relative squared error 38.3141 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,956 0,061 0,958 0,956 0,957 0,895 0,992 0,994 1

0,939 0,044 0,937 0,939 0,938 0,895 0,992 0,989 0

Weighted Avg. 0,949 0,054 0,949 0,949 0,949 0,895 0,992 0,992

=== Confusion Matrix ===

a b <-- classified as

723 33 | a = 1

32 492 | b = 0

**Time-Frequency Domain – Gamma – Dominance**

**NaiveBayes classifier**

**- Filter:** Partition membership (Random Tree)

Correctly Classified Instances 871 68.0469 %

Incorrectly Classified Instances 409 31.9531 %

Kappa statistic 0.3398

Mean absolute error 0.3316

Root mean squared error 0.539

Relative absolute error 68.5711 %

Root relative squared error 109.6198 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,728 0,387 0,730 0,728 0,729 0,340 0,712 0,769 1

0,613 0,272 0,609 0,613 0,611 0,340 0,712 0,606 0

Weighted Avg. 0,680 0,340 0,681 0,680 0,681 0,340 0,712 0,702

=== Confusion Matrix ===

a b <-- classified as

550 206 | a = 1

203 321 | b = 0

**SVM(SMO) Classifier**

**- Filter:** Partition membership (Random Tree)

**- Classifier:** SMO(Sequential minimal optimization)

- **FilterType**: Standardize training data

- **Kernel:** PUK

Correctly Classified Instances 1240 96.875 %

Incorrectly Classified Instances 40 3.125 %

Kappa statistic 0.936

Mean absolute error 0.0313

Root mean squared error 0.1768

Relative absolute error 6.4619 %

Root relative squared error 35.9505 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,952 0,008 0,994 0,952 0,973 0,937 0,972 0,975 1

0,992 0,048 0,935 0,992 0,963 0,937 0,972 0,931 0

Weighted Avg. 0,969 0,024 0,970 0,969 0,969 0,937 0,972 0,957

=== Confusion Matrix ===

a b <-- classified as

720 36 | a = 1

4 520 | b = 0

**İBK Classifier**

- **Filter:** Partition membership (Random Tree)

Correctly Classified Instances 1210 94.5313 %

Incorrectly Classified Instances 70 5.4688 %

Kappa statistic 0.8868

Mean absolute error 0.053

Root mean squared error 0.2271

Relative absolute error 10.9509 %

Root relative squared error 46.1908 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,955 0,069 0,953 0,955 0,954 0,887 0,971 0,972 1

0,931 0,045 0,935 0,931 0,933 0,887 0,971 0,957 0

Weighted Avg. 0,945 0,059 0,945 0,945 0,945 0,887 0,971 0,966

=== Confusion Matrix ===

a b <-- classified as

722 34 | a = 1

36 488 | b = 0

**RandomForest Classifier**

- **Filter:** Partition membership (Random Tree)

Correctly Classified Instances 1221 95.3906 %

Incorrectly Classified Instances 59 4.6094 %

Kappa statistic 0.9046

Mean absolute error 0.0717

Root mean squared error 0.1869

Relative absolute error 14.8268 %

Root relative squared error 38.0075 %

Total Number of Instances 1280

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0,963 0,059 0,959 0,963 0,961 0,905 0,992 0,995 1

0,941 0,037 0,946 0,941 0,944 0,905 0,992 0,989 0

Weighted Avg. 0,954 0,050 0,954 0,954 0,954 0,905 0,992 0,992

=== Confusion Matrix ===

a b <-- classified as

728 28 | a = 1

31 493 | b = 0