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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Feature\_Selection\_Method | Classifier\_Techniques | Evaluation Criteria | | | | | | | | |
| Accuracy | TP  Rate | FP  Rate | Precision | Recall | FAR | F-  Measure | MCC | MAE |
| Info\_Gain | J48 | 78.006 | 0.781 | 0.172 | 0.84 | 0.781 | 0.364 | 0.779 | 0.623 | 0.229 |
| **Random**  **Forest** | **79.36** | **0.794** | **0.163** | **0.846** | **0.794** | **0.341** | **0.792** | **0.641** | **0.229** |
| PART | 77.102 | 0.771 | 0.18 | 0.835 | 0.771 | 0.382 | 0.768 | 0.609 | 0.231 |
| Nave Bayes | 72.068 | 0.721 | 0.227 | 0.789 | 0.721 | 0.442 | 0.715 | 0.514 | 0.279 |
| DT | 72.595 | 0.726 | 0.214 | 0.814 | 0.726 | 0.461 | 0.718 | 0.545 | 0.197 |
| RBFN | 71.965 | 0.72 | 0.228 | 0.787 | 0.72 | 0.441 | 0.714 | 0.511 | 0.299 |
| Bayes Net | 73.203 | 0.732 | 0.209 | 0.816 | 0.732 | 0.45 | 0.725 | 0.553 | 0.268 |
| CFS Subset  Evaluator | J48 | 73.984 | 0.74 | 0. 203 | 0.82 | 0.74 | 0.436 | 0.734 | 0.564 | 0.267 |
| Random  Forest | 74.84 | 0.784 | 0.197 | 0.823 | 0.748 | 0.42 | 0.743 | 0.575 | 0.345 |
| **PART** | **79.249** | **0.792** | **0.167** | **0.839** | **0.792** | **0.333** | **0.791** | **0.633** | **0.264** |
| Nave Bayes | 74.702 | 0.747 | 0.829 | 0.829 | 0.747 | 0.43 | 0.741 | 0.58 | 0.253 |
| DT | 43.075 | 0.431 | 0.431 | 0.186 | 0.431 | 1 | 0.259 | 0 | 0.504 |
| RBFN | 71.127 | 0.711 | 0.222 | 0.817 | 0.711 | 0.505 | 0.7 | 0.533 | 0.323 |
| Bayes Net | 60.632 | 0.606 | 0.298 | 0.794 | 0.606 | 0.691 | 0.564 | 0.401 | 0.447 |
| Gain Ratio | J48 | 81.871 | 0.819 | 0.145 | 0.858 | 0.819 | 0.293 | 0.818 | 0.677 | 0.193 |
| Random  Forest | 81.946 | 0.819 | 0.143 | 0.86 | 0.819 | 0.297 | 0.819 | 0.681 | 0.232 |
| **PART** | **77.905** | **0.779** | **0.179** | **0.835** | **0.779** | **0.362** | **0.777** | **0.616** | **0.231** |
| Nave Bayes | 76.242 | 0.762 | 0.186 | 0.832 | 0.762 | 0.398 | 0.758 | 0.597 | 0.237 |
| DT | 72.595 | 0.726 | 0.214 | 0.814 | 0.726 | 0.461 | 0.718 | 0.545 | 0.197 |
| RBFN | 75.177 | 0.752 | 0.193 | 0.828 | 0.752 | 0.419 | 0.747 | 0.584 | 0.272 |
| Bayes Net | 71.517 | 0.715 | 0.221 | 0.812 | 0.715 | 0.483 | 0.705 | 0.532 | — |
| Symmetric  Uncertainty | J48 | 78.927 | 0.789 | 0.167 | 0.842 | 0.789 | 0.346 | 0.787 | 0.633 | 0.218 |
| **Random**  **Forest** | **80.708** | **0.807** | **0.153** | **0.853** | **0.807** | **0.317** | **0.806** | **0.661** | **0.221** |
| PART | 80.371 | 0.804 | 0.157 | 0.848 | 0.804 | 0.318 | 0.803 | 0.653 | 0.221 |
| Nave Bayes | 73.292 | 0.733 | 0.21 | 0.813 | 0.733 | 0.444 | 0.726 | 0.551 | 0.266 |
| DT | 72.595 | 0.726 | 0.214 | 0.814 | 0.726 | 0.461 | 0.718 | 0.545 | 0.197 |
| RBFN | 73.522 | 0.735 | 0.209 | 0.812 | 0.735 | 0.438 | 0.729 | 0.552 | 0.288 |
| Bayes Net | 71.562 | 0.716 | 0.222 | 0.808 | 0.716 | 0.478 | 0.706 | 0.529 | 0.282 |
| Chi-square  Test | J48 | 78.051 | 0.781 | 0.173 | 0.838 | 0.781 | 0.363 | 0.778 | 0.621 | 0.229 |
| Random  Forest | 80.132 | 0.801 | 0.157 | 0.85 | 0.801 | 0.328 | 0.8 | 0.653 | 0.222 |
| **PART** | **77.989** | **0.78** | **0.173** | **0.84** | **0.78** | **0.367** | **0.777** | **0.622** | **0.218** |
| Nave Bayes | 72.618 | 0.726 | 24  0.224 | 0.79 | 0.726 | 0.43 | 0.722 | 0.521 | 0.273 |
| DT | 72.595 | 0.726 | 0.214 | 0.814 | 0.726 | 0.461 | 0.718 | 0.545 | 0.197 |
| RBFN | 70.723 | 0.707 | 0.234 | 0.789 | 0.707 | 0.475 | 0.699 | 0.502 | 0.31 |
| Bayes Net | 72.409 | 0.724 | 0.215 | 0.812 | 0.724 | 0.463 | 0.716 | 0.541 | 0.275 |

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| --- | --- | --- | --- | --- | --- |
| Time-steps | Learning rate | Train Accuracy | Precision | Recall | FAR |
| 10 | 86.632 | 0.9994 | 0.99 | 0.9977 | 0.0022 |
| 20 | 85.534 | 0.9943 | 0.3296 | 0.9922 | 0.0077 |
| 30 | 84.510 | 0.986 | 0.9952 | 0.9418 | 0.05812 |
| 40 | 86.613 | 0.9996 | 0.9902 | 0.9983 | 0.0016 |
| 50 | 85.434 | 0.9967 | 0.9919 | 0.9865 | 0.0134 |
| 60 | 72.89 | 0.8914 | 0.9935 | 0.5011 | 0.4988 |
| **70** | **87.911** | **0.9981** | **0.9939** | **0.9923** | **0.0076** |
| 80 | 83.243 | 0.9999 | 0.9842 | 0.9997 | 0.0002 |
| 90 | 83.323 | 0.9995 | 0.9859 | 0.9981 | 0.0018 |
| 100 | 82.167 | 0.9937 | 0.9925 | 0.974 | 0.0257 |