|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Accuracy** | **Precision** | **Recall** | **F1-Score** |
| BiLSTM | 0.8246 | 0.84 | 0.82 | 0.82 |
| SE-Enhanced 1D-CNN for Time Series Classification | 0.8304 | 0.85 | 0.83 | 0.83 |
| Custom CNN | 0.8401 | 0.84 | 0.84 | 0.84 |
| Random Forest Classifier | 0.8876 | 0.89 | 0.89 | 0.89 |
| WIREnet | 0.9147 | 0.92 | 0.91 | 0.91 |
| ResNet FC | 0.9225 | 0.92 | 0.92 | 0.92 |
| ResCNN-Attention-BiGRU | 0.9302 | 0.93 | 0.93 | 0.93 |
| SVM | 0.9486 | 0.95 | 0.95 | 0.95 |

**13 MFCC + Other features**

**26 MFCC + Other features**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Accuracy** | **Precision** | **Recall** | **F1-Score** |
| Random Forest Classifier | 0.9284 | 0.93 | 0.93 | 0.93 |
| BiLSTM | 0.9316 | 0.94 | 0.93 | 0.93 |
| Custom CNN | 0.9446 | 0.94 | 0.94 | 0.94 |
| ResCNN-Attention-BiGRU | 0.9596 | 0.96 | 0.96 | 0.96 |
| SE-Enhanced 1D-CNN for Time Series Classification | 0.9718 | 0.97 | 0.97 | 0.97 |
| WIREnet | 0.9728 | 0.97 | 0.97 | 0.97 |
| ResNet FC | 0.9742 | 0.97 | 0.97 | 0.97 |
| SVM | 0.9780 | 0.98 | 0.98 | 0.98 |

**39 MFCC + Other features**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Accuracy** | **Precision** | **Recall** | **F1-Score** |
| Random Forest Classifier | 0.9322 | 0.94 | 0.93 | 0.93 |
| BiLSTM | 0.9340 | 0.94 | 0.93 | 0.93 |
| Custom CNN | 0.9526 | 0.95 | 0.95 | 0.95 |
| ResCNN-Attention-BiGRU | 0.9562 | 0.96 | 0.96 | 0.96 |
| WIREnet | 0.9720 | 0.97 | 0.97 | 0.97 |
| ResNet FC | 0.9746 | 0.97 | 0.97 | 0.97 |
| SE-Enhanced 1D-CNN for Time Series Classification | 0.9764 | 0.98 | 0.98 | 0.98 |
| SVM | 0.9854 | 0.99 | 0.99 | 0.99 |