A Tutorial for GR-sEMG

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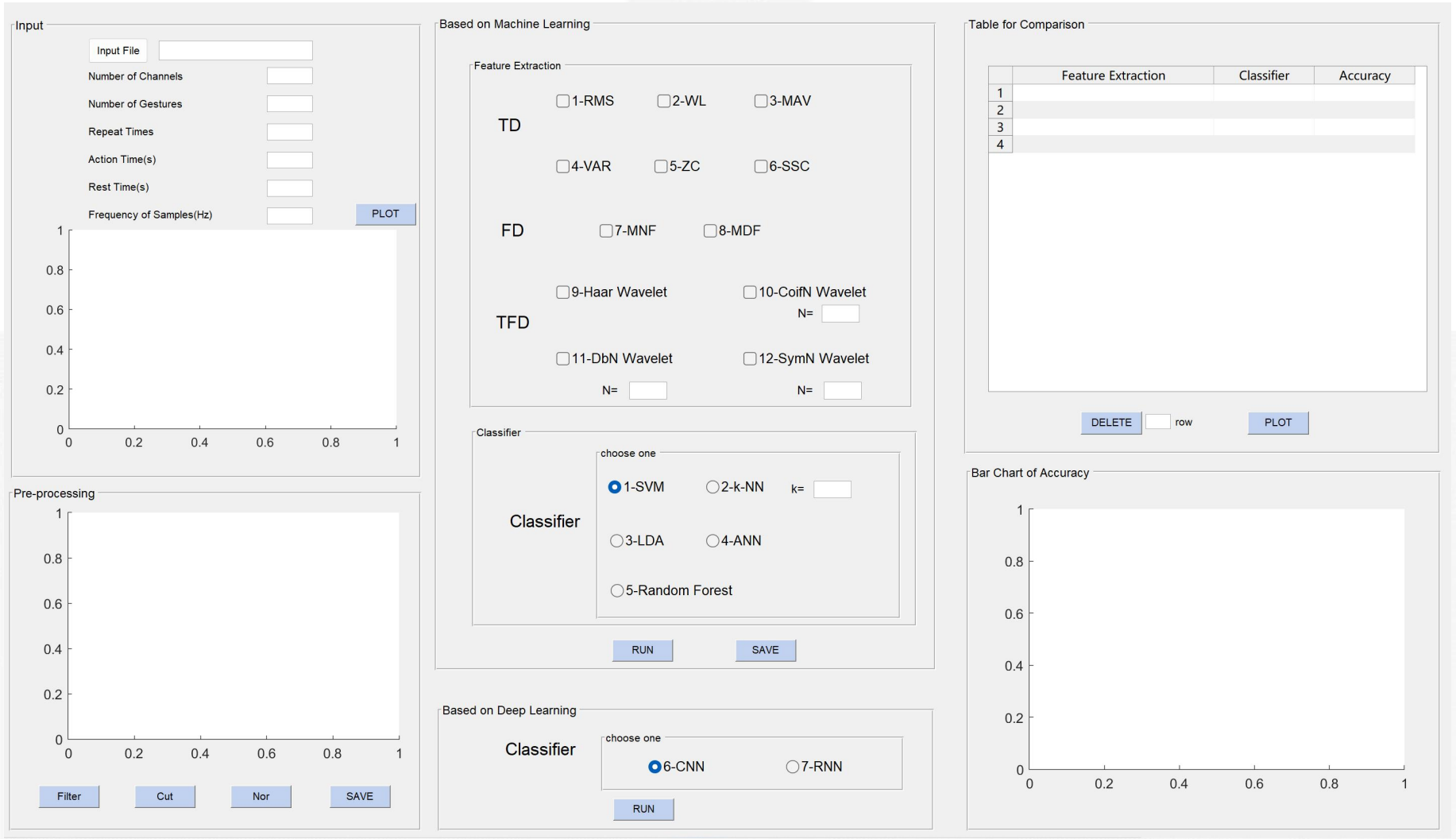
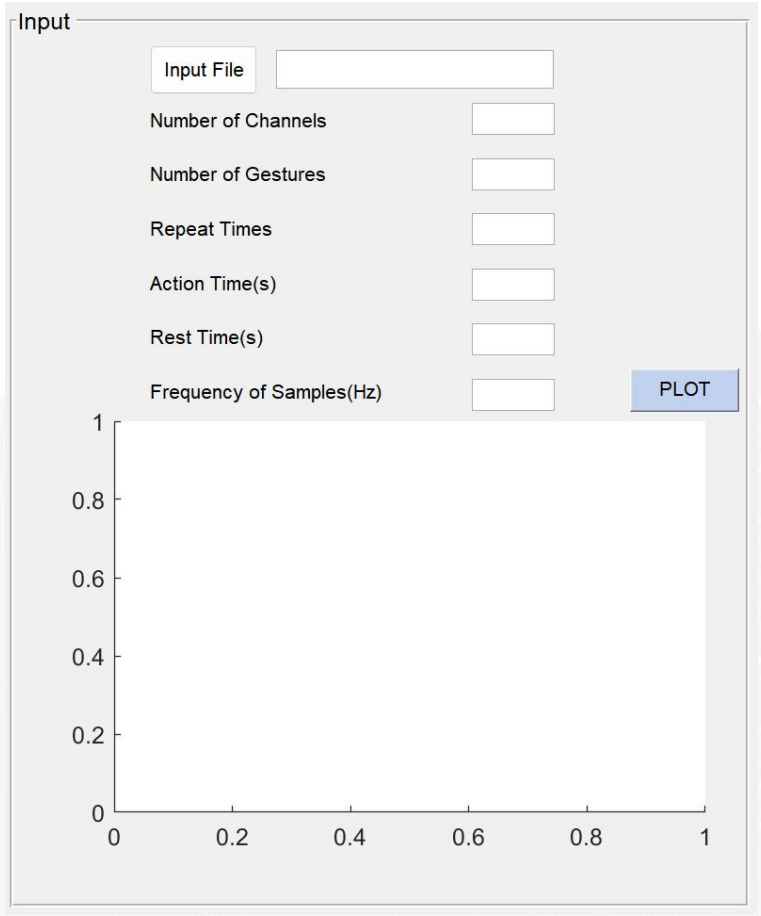
The interface of GR-sEMG

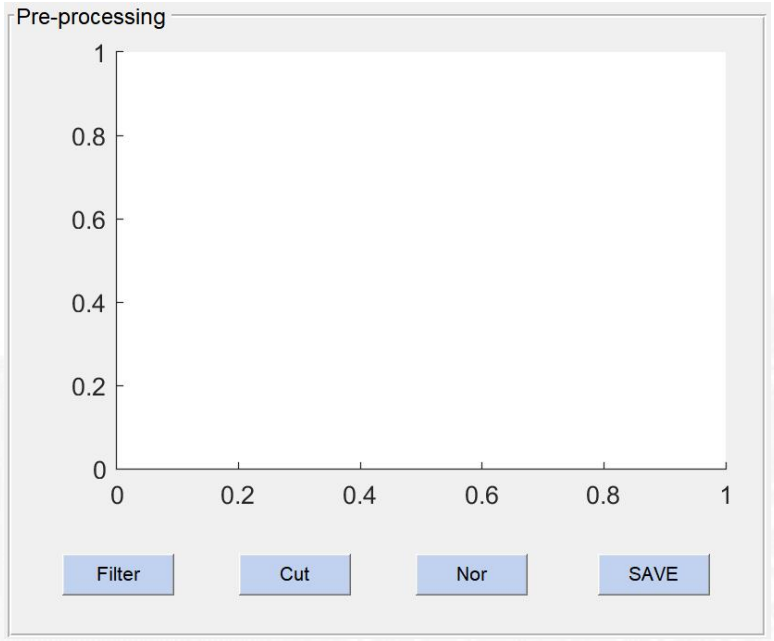


1.Data Inputting



1.Click the button “Input File” to input your data which must be a .mat file.
2.Fill in the blanks with the basic information of the data.
3.Click the button “PLOT” if you want to plot the data.

2.Pre-processing

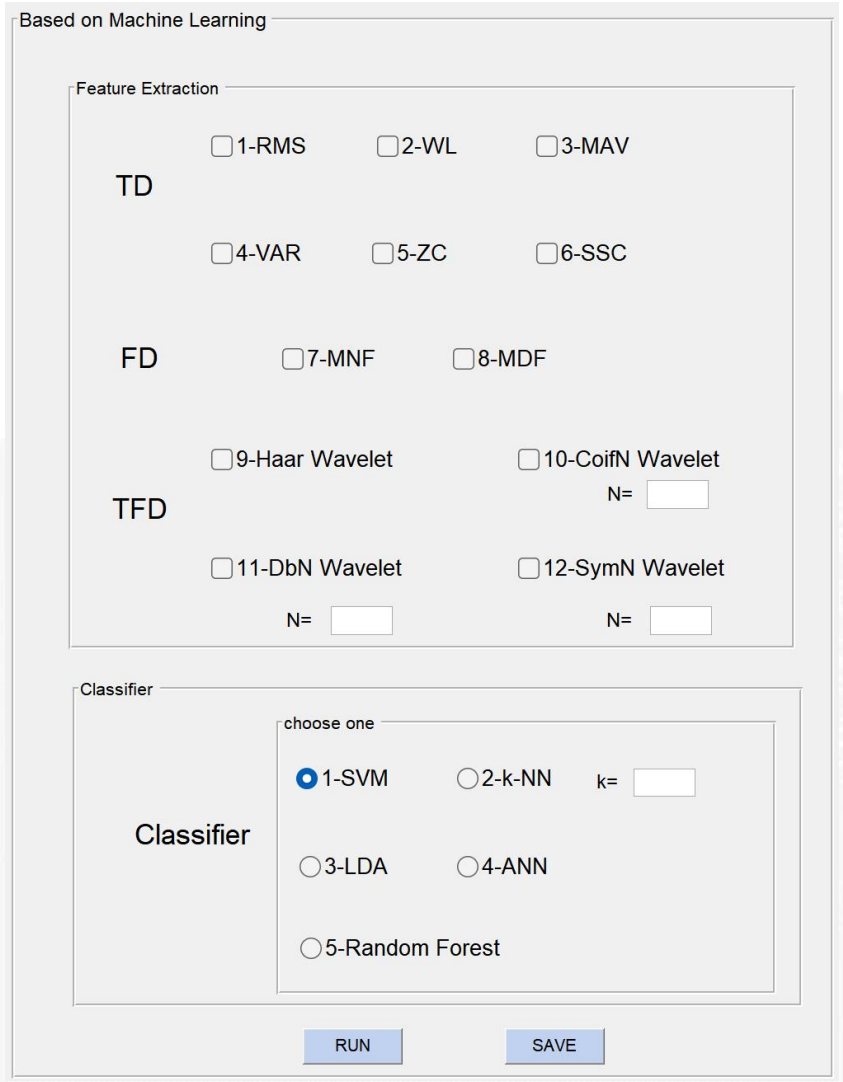


1.Click the buttons “Filter”, “Cut” and “Nor” in turn to finish the function of this part.

*P.S.*After doing that, you click them at will.

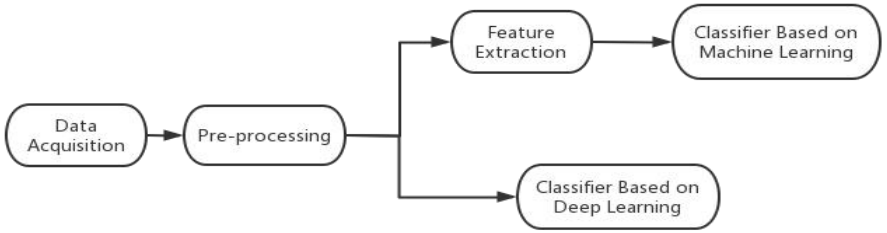
2.Click the button “SAVE” if you want to save the data plotted currently as a .mat file.

3.Feature Extraction

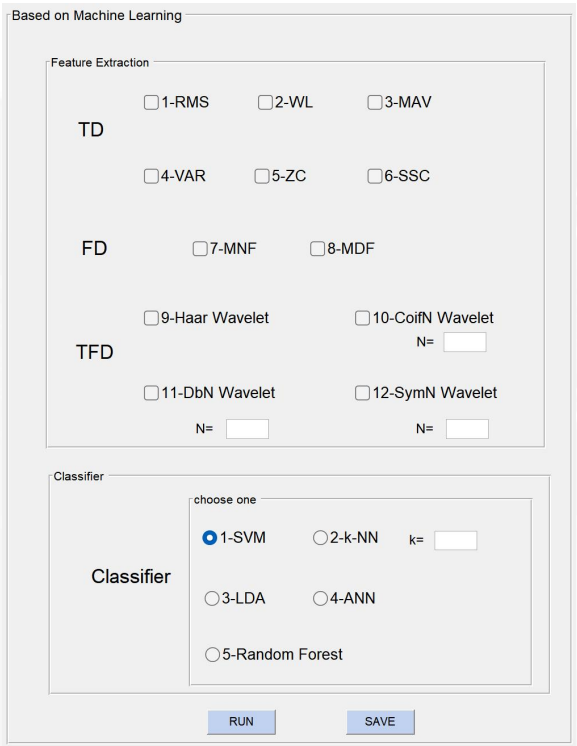


1.Choose one or more feature extraction methods.
2.Input the parameter if you choose the methods with a blank.

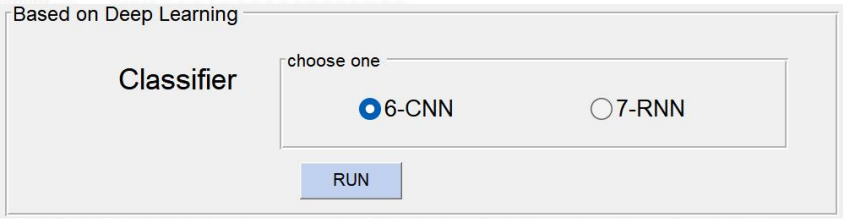
4.Classification



No matter you choose which way, classifier is necessary.

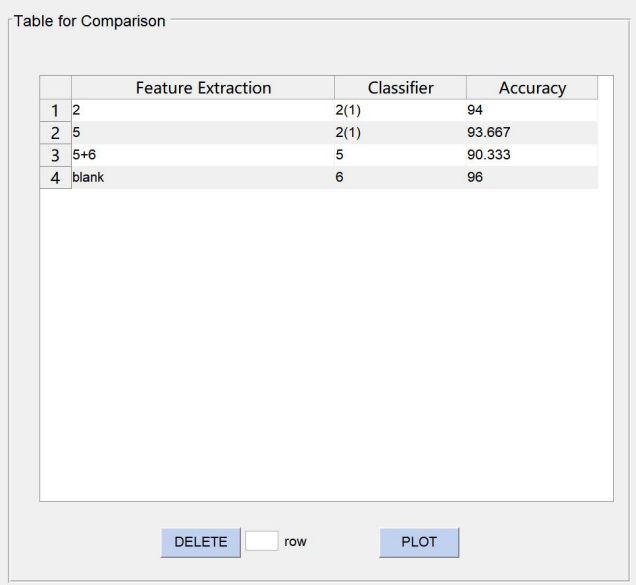


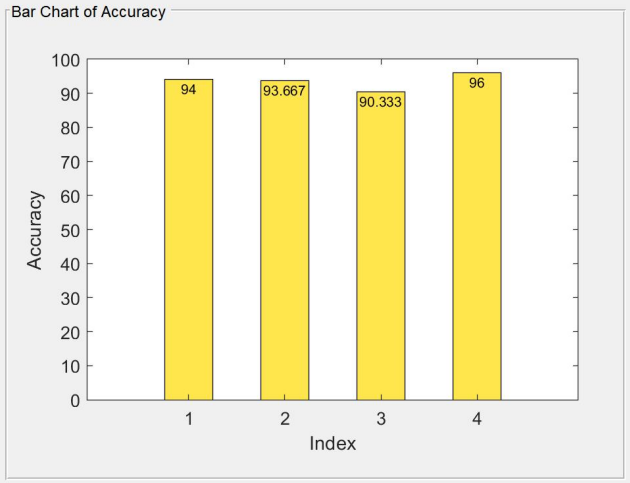
For the first way, after feature extraction:
1.Choose one classifier and input the value of k if you choose k-NN.
2.Click the button “RUN” for gesture recognition.
3.Click the button “SAVE” if you want to save the features as a .mat file.



For the second way:
1.Choose one classifier.
2.Click the button “RUN” for gesture recognition.

5.Table and Bar Chart





After clicking the button “RUN”, the accuracy and the corresponding methods will be shown in the table using the numbers before them.

1.Input the row number if you want to delete the row, then click the button “DELETE”.
2.Click the button “PLOT” to plot the data in the table as a bar chart.