

Installation of Software:

1. Install Matlab R2016a .
2. Install Image Acquisition Tool :-
 - 2.1. On the MATLAB Home tab, in the Environment section, click Add-Ons > Get Hardware Support Packages.
 - 2.2. In the Add-On Explorer, scroll to the Hardware Support Packages section, and click show all to find your support package.
 - 2.3. You can refine the list by selecting Imaging/Cameras in the Refine by Hardware Type section on the left side of the Explorer.
 - 2.4. Select the support package for your adaptor. The table in [Image Acquisition Support Packages for Hardware Adaptors](#) shows the names of the support packages for each adaptor type.

Running the Code :

1. Open **source_code** folder in MATLAB.
2. Type **train_gui** in MATLAB command window and press enter

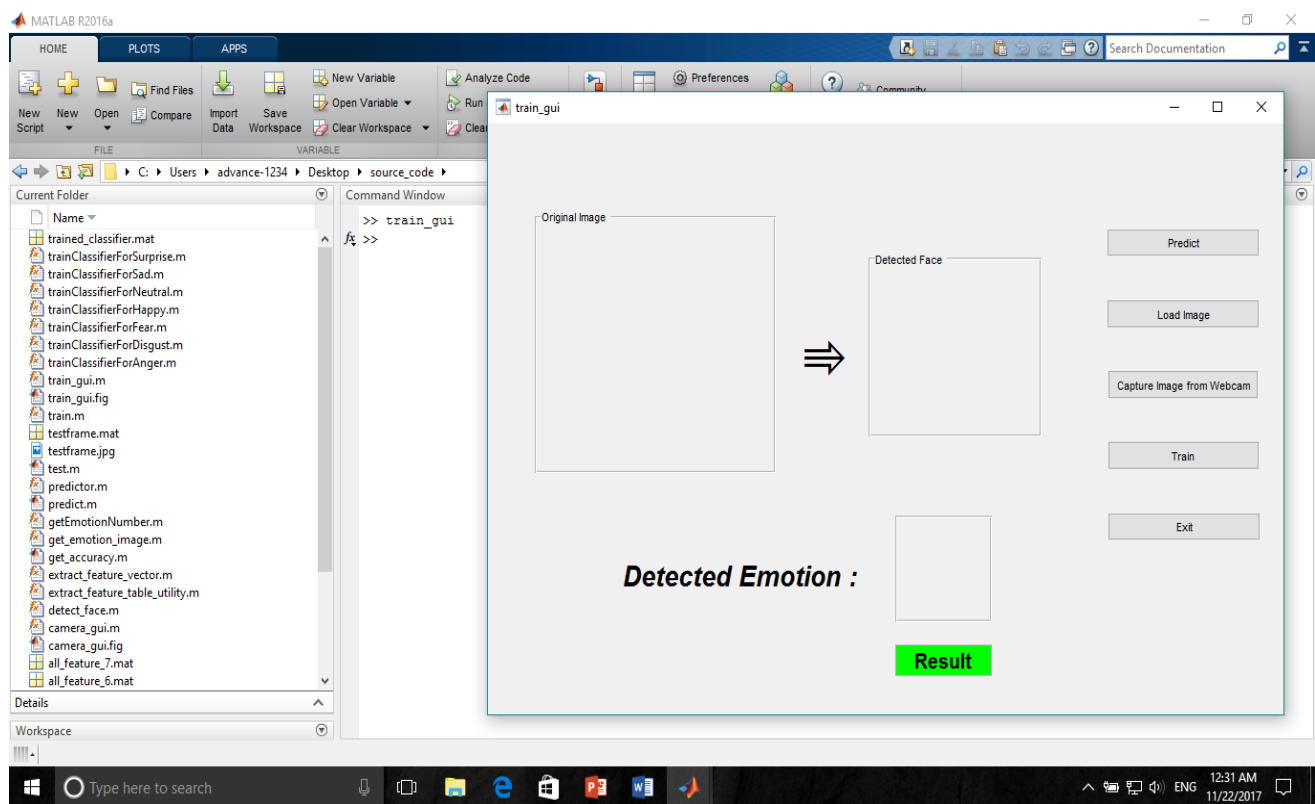


Fig-1 : Project GUI

3. Software is Already trained on our own dataset which is in '[source_code/dataset](#)' folder. To train it on the different dataset just put your images in the dataset folder (in the same format).
4. To detect emotion for an image two options are available:
 - 4.1. Load image:
 - 4.1.1. Click on load image button and select your image for emotion detection.
 - 4.1.2. Now original image and detected face will be present on GUI.
 - 4.1.3. Click on Predict button to detect emotion.
 - 4.2. Capture Image from Webcam.
 - 4.2.1. Click on Capture Image from Webcam.
 - 4.2.2. It will open webcam GUI now Click on Take Snapshot button and Close Webcam.
 - 4.2.3. Click on Predict button to detect emotion.

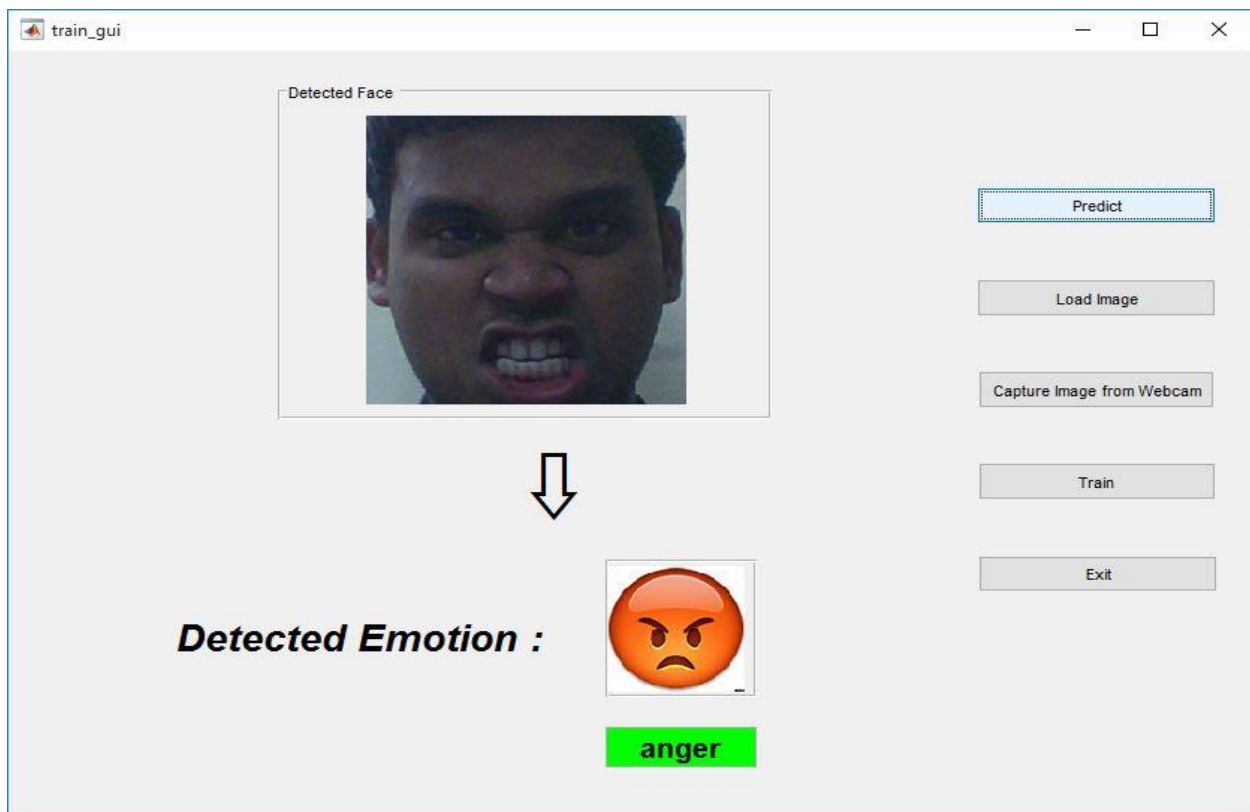


Fig-2 : detected emotion