## CAPSTONE PROJECT

I intend to build a DL model that uses gestures (such as eye and hand movements) as an input device for computers, television, and other electronic devices. The model, using the eye or the hand movement without an external keyboard, will complete words and sentences for the user. The model could be used by anyone, and its application can help physically challenged people to control their devices.

## FEATURES OF THE MODEL

The model should be able to perform the following task:

- ✓ Shut down when it recognized no one is watching the screen for some time (especially for TVs)
- ✓ Shut down when the user falls asleep in front of the screen.
- ✓ Able to control the screen with hand or eye gestures. For TVs, the eye or hand serves as a remote control. For PCs, the eye/hand gestures serve as the mouse/keyboard.
- ✓ When using a PC, eye/hand movements should be able to select characters, and for which the model will be able to predict subsequent words to be able to complete sentences faster.

## PROBLEM TO BE SOLVE

- ✓ I am looking forward to building this model to assist physically challenged people to control their devices.
- ✓ For public places, like hospitals, where there are screens for attendants, this will help reduce the contact between the human hand and other surfaces.
- ✓ This will also help in easy and faster typing for people who cannot access their mouse/keyboard

## IMPLEMENTATIONS

- ✓ The OpenCV library will be used for the detection of human gestures.
- ✓ The NLP library will be used for the textual part.