

## **Registration form for Minor Project-I**

<b>Roll No</b>	<b>Name of the Student</b>
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**Proposed Project Title: Hand Gesture Recognition**

**Proposed Guide** (If you are working under any one)

**Abstract:**

Hand gesture recognition is one of the system that can detect the gesture of hand in a real time video. The gesture of hand is classify within a certain area of interest. In this project. firstly the detection of hand will occur. Another problem is to create the sign that is suitable to be used for one hand in a time. This project concentrates on how a system could detect, recognize and interpret the hand gesture recognition through computer vision with the challenging factors which variability in pose, orientation, location and scale. To perform well for developing this project, different types of gestures such as numbers and sign languages need to be created in this system. The image taken from the realtime video is analysed via Haar-cascaded Classifier to detect the gesture of hand before the image processing is done or in the other word to detect the appearance of hand in a frame. In this project, the detection of hand will be done using the theories of Region of Interest (ROI) via Python programming. The explanation of the results will be focused on the simulation part since the different for the hardware implementation is the source code to read the real-time input video. The developing of hand gesture recognition using Python and OpenCV can be implemented by applying the theories of hand segmentation and the hand detection system which use the Haar-cascade classifier.

**Objective:-**

The primary objective of this system shows how a computer can be operated by using human hand gestures. This project can allow us the use of computers without any physical operation. Use of hand gestures to operate machines would make interaction interesting.  
Hand gestures are used to control various applications like windows media player, robot control, gaming etc. Use of gesture makes interaction easy, convenient and does not require any extra device.

**Official Use**

**Group No:**

**Supervisor:**

**Panel Member**

**Panel Member**

**Class Teacher**

**Project Coordinator**  
**3<sup>rd</sup> year**

**HOD, CSE**  
**3<sup>rd</sup> year**