## HAND GESTURE RECOGNITION USING CLUSTERING BASED TECHNIQUE

By

JIGNASHA B. PANCHAL Enrollment No.: 130370701511

## Mr. KARSHAN P. KANDORIYA

M.E. (CST) Assistant Professor, CSE Dept.

A Thesis Submitted to Gujarat Technological University in Partial Fulfillment of the Requirements for the Degree of Master of Engineering In Computer Science & Engineering

May - 2015



Computer Science & Engineering Department, Parul Institute of Engineering & Technology P.O: Limda, Ta.: Waghodia, Dist.: Vadodara

# Hand Gesture Recognition using Clustering Based Technique

## **Submitted By**

Jignasha B. Panchal

#### **Supervised By**

Mr. Karshan P. Kandoriya M.E (CST), Assistant professor Parul Institute of Engineering and Technology, Limda, Vaghodia, Vadodara

## ABSTRACT

Hand Gesture Recognition play vital role for developing human computer interaction and sign language recognition. Sign language recognition is used for deaf and dump people. Existing system based on vision based static hand gesture recognition. It performed static hand gesture recognition. In existing system, Contour tracking algorithm is used for feature extraction and radial basis functional neural network (RBFNN) is used for classification. RBFNN provides good classification accuracy. Existing system is limited to static hand gesture recognition. Proposed work performs Dynamic Hand Gesture Recognition using clustering based technique. Clustering based technique provides good classification accuracy. Fourier Descriptor method is used for feature extraction in the proposed method. This method will reduce time complexity and it will improve accuracy.