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| **SL.NO** | **TITLE AND AUTHOR** | **METHODOLOGY** | **ADVANTAGES** | **LIMITATIONS** |
| 1. | Rafiqul Zaman Khan and Noor Adnan Ibraheem,  **COMPARATIVE STUDY OF HAND GESTURE RECOGNITION SYSTEM,** AIRCC Digital Library - 2012 | Three main steps for hand gesture recognition system:  1.Segmentation  2.Feature Representation  3.Recognition Techniques  Hand gesture recognition by modelling of the hand in spatial domain.  Uses various 2D and 3D geometric and non-geometric models for modelling  It has used Fuzzy c-Means clustering algorithm which resulted in an accuracy of 85.83%. | 1.Recognises gestures from both 2D and 3D images.  2.Different groups of features are examined to decide the good performance group. | 1.The main drawback of the system is it does not consider gesture recognition of temporal space, i.e; motion of gestures.  2.It uses images to classify the gesture and is not in real time.  3.It is unable to classify images with complex background i.e; where there are other objects in the scene with the hand objects .  4.The computation time to recognise a gesture is high (2-4 seconds).  5. Classification of same gesture in two different images with variation of hand position gives contradicting outputs. |
| 2. | Pei Xu,  **A REAL-TIME HAND GESTURE RECOGNITION AND HUMAN-COMPUTER INTERACTION SYSTEM**, Arxiv Journal Repository (Cornell University Library) – April 2017 | The system consists of three components: 1.Hand detection  2.Gesture recognition  3. Human-Computer Interaction (HCI)  It has implemented the following methodology:  1.The input image is preprocessed and the hand detector tries to filter out the hand from the input image  2.A CNN classifier is employed to recognize gestures from the processed image, while a Kalman Filter is used to estimate the position of the mouse cursor.  3.The recognition and estimation results are submitted to a control centre which decides the action to be taken. | 1.The system uses Convolutional Neural Networks(CNN) which reach an accuracy rate of 99% rather than other approaches such as Hidden Markov Model(HMM), Orientation Histogram which are less accurate.  2.It uses only one monocular camera to capture the image. | 1.The system recognizes only static images.  2.The CNN used is not robust and reliable since the number of images and used to train and test the classifier is less.  3.It only recognizes a gesture and not a motion of gestures to control the mouse actions. |

Accident detection and alert system has been

extensively studied over the past several years. Research work

in this field has proposed a Telematics model which has three

main modules [1]. The system is intended to capture the

location of the vehicle through GPS receiver, send the location

information to vehicle owner’s mobile number through SMS

and also to the telematics operator server through GPRS.

Another prototype proposes a system to detect and provide

faster assistance to traffic accident victims [2]. A prototype

architecture to improve the chances of survival for passengers

involved in car accidents has also been proposed [3]. The

proposed system offers automated detection, reports, and

assistance to passengers involved in road accidents by

exploiting the capabilities offered by vehicle to vehicle

communication technologies. Here a low cost alert system is

proposed to provide immediate medical aid to the accident

victims by alerting the nearby medical assistance center with

the exact place of accident and the details of the patient through

SMS. This system also takes the medical condition of the

accident victim by checking the heartbeat to understand the

seriousness of the accident and inform the medical aid center.

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