LITERATURE SURVEY

TEAM ID : PNT2022TMID28478

Team Title : Gesture Based Tool For Sterile Browsing Of Radiology Images

College Name : AGNI College of Technology

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1	**Paper title**	Combining Hand detection and gesture recognition algorithms for minimizing Computational cost - Roman Golovanov**,**Darina Kalina **- 2020**
	Problem definition	Hand gesture is very important in human-computer interactions(HCI).The most common way to build a recognition system is to use a pretrained CNN.
	Methodology/ Algorithm	Convolution layer of neural network(CNN)
	Advantages	• Relatively new architectures called convolutional pose machines can represent a skeleton model of a hand or body from an image with sufficiently high accuracy. • Computational cost is minimum.
	Disadvantages	It presents a combined hand gesture recognition system that uses a hand detector to detect a hand in the frame and then switches to a gesture classifier if a hand was detected.

2	**Paper title**	Deep learning based approach for sign language gesture recognition with efficient hand gesture representation - Muneer Al-Hammadi,Wadood Abdul - **2020**.
	Problem definition	Hand gesture recognition is an attractive research field with a wide range of applications including video games and telesurgery techniques
	Methodology/ Algorithm	Multiple deep learning architectures for hand segmentation, local and global feature representations, and sequence feature globalization and recognition.
	Advantages	However developing an efficient recognition system needs to overcome the challenges of hand segmentation,local hand shape representation,global body configuration representation,and gesture sequence modeling
	Disadvantages	Another important application of hand gesture recognition is the translation of sign language, which is a complicated structured form of hand gestures.

3	**Paper title**	A method for recognition of dynamic hand gestures based on wrist tendon sounds - Bailin He**,**Can Wang **- 2021**
	Problem definition	.In this paper,a novel method for dynamic hand gesture recognition based on sounds of wrist tendon is proposed.
	Methodology/ Algorithm	• Support Vector Machine(SVM) • Continuous Wavelet Transform(CWT)
	Advantages	• Hand gesture recognition are widely applied in rehabilitation engineering. • Gestures allow the user to handle multiple points of input and even define several parameters at once.
	Disadvantages	• Some kind of input also raises issues that are not relevant with traditional input. • The ambient noise may cause some interrupt.

4	**Paper title**	Multiview hand gesture recognition using deep learning - Mallika Garg**,**Pyari Mohan Pradhan - **2021**
	Problem definition	Gesture recognition is a challenging research topic since different gestures have different sizes,poses,and sometimes face occlusion.
	Methodology/ Algorithm	Multiview gestures in a convolutional neural network(convnet)
	Advantages	• Utilizing multiview gestures for recognition. • Evaluations are performed based on the system accuracy and found that as the number of views increases, the system more accurately recognizes the gestures
	Disadvantages	Extensive experiments are performed on isolated gestures for different possible combinations of multiview training and testing sets.

5	**Paper title**	A Structured and Methodological Review on Vision-Based Hand Gesture Recognition System - Fahmid Al Farid , Noramiza Hashim - **2022**.
	Problem definition	Researchers have recently focused their attention on vision-based hand gesture recognition systems in real time has remained a challenge.
	Methodology/ Algorithm	• Conventional neural network algorithm. • Kanada-Lucas-Tomas(KMT)tracking algorithm.
	Advantages	• To operate powerpoint and VLC media players,proposed a hand gesture detection method. • High recognition rate was achieved 94% from testing the dataset
	Disadvantages	Many training images needed for testing the system performance.The whole system implemented in MATLAB which is slower than other languages that have complexity in design but speed in execution time.