

SOFT COMPUTING APPROACHES FOR HAND GESTURE RECOGNITION

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ABSTRACT

Real time hand gesture recognition can be used in many applications (such as remote for television, rotate a CAD model by rotating hand, video games etc). The main objective of this paper is hand gesture should be recognized within short period of time cost of the system should be low & the system should be robust. Images are captured using web camera with static background. The paper is divided in to 2 parts, Feature extraction phase & classification phase. In feature extraction phase hand is extracted from the frame using background subtraction, & edge detection. Patterns are calculated neural network, SVM (Support vector machine) and KNN (K-nearest neighbour) which is classification phase.

KEYWORDS: Hand Gesture Recognition, Neural Network, Backpropagation Algorithm, Background Subtraction, SVM, KNN