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RESEARCH ARTICLE

GAIT RECOGNITION OF HUMAN USING SVM AND BPNN CLASSIFIERS

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ABSTRACT

Recognition of any individual is a task to identify people. Human identification using Gait is method to identify an individual by the way he walk or manner of moving on foot. Gait recognition is a type of biometric recognition and related to the behavioural characteristics of biometric recognition. Gait recognition is one kind of biometric technology that can be used to monitor people without their cooperation. Controlled environments such as banks, military installations and even airports need to be able to quickly detect threats and provide differing levels of access to different user groups. Gait shows a particular way or manner of moving on foot and gait recognition is the process of identifying an individual by the manner in which they walk. Gait is less unobtrusive biometric, which offers the possibility to identify people at a distance, without any interaction or co-operation from the subject; this is the property which makes it so attractive. In this thesis, firstly binary silhouette of a walking person is detected from each frame. Secondly, feature from each frame is extracted using image processing operation. Here center of mass, step size length, and cycle length are talking as key feature. At last BPNN and SVM technique is used for training and testing purpose. Here all experiments are done on gait database and input video.

Keywords: Silhouette extraction; Feature Extraction; Gait Recognition System; BPNN; SVM

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