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Abstract

Gait based gender identification has received a great attention from researchers in the last decade due to its potential in different applications. This will help a human identification system to focus only on the identified gender related features, which can improve search speed and efficiency of the retrieval system by limiting the subsequent searching space into either a male database or female database. In this paper after preprocessing, four binary moment features and two spatial features are extracted from human silhouette. Then the extracted features are used for training and testing two different pattern classifiers k- Nearest Neighbor (kNN) and Support Vector Machine(SVM). Experimental results show superior performance of our approach to the existing gender classifiers. To evaluate the performance of the proposed algorithm experiments have been conducted on NLPR database.

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Index Terms

Computer Science   Pattern Recognition

Keywords

Gender   Gait   Binary moments   Silhouette   Visual Surveillance   kNN   SVM.