Abstract

Face recognition is one of the most significant achievements in human vision. It has emerged that eigenface, neural network, graph matching, hidden markov model, geometrical feature matching, template matching, 3D morphable model, line edge map (LEM), support vector machine (SVM), multiple classifier systems (MCSs) are fashionable techniques of face recognition. Till date, all existing techniques could not provide satisfactory results. In this view, paper is presented a new system OFRS (Optimal Face Recognition System). This system can be find optimal accuracy of face recognition. The system is based on PCA-SVM (Principle component analysis-Support Vector Machine) combinations. It is used preprocessing, feature extraction, classification, optimization, techniques in the best way. Since, "PCA-SVM combination" suffers from the limitation of scalability. Hence, IPCA (Incremental PCA) is proposed to be used, for the first time with this combination, as feature selection strategy to overcome scalability problem. GA (Genetic Algorithm) is proposed to be used, for the first time, as optimization of SVM kernel for face recognition. At last, paper describes impact of proposed system in academic as well as industry.
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Index Terms
Computer Science  Pattern Recognition

Keywords
Pca  SVM  MCS  OFRS  Face Recognition