

Sparse signal representation showed promising results in the field of face recognition in the last few years. In this work, an algorithm based on sparsifying transform is considered. It mainly learns a dictionary that can transform the image into sparse vectors. In the transformation domain, the images of the same class should have similar nonzero coefficients pattern that can be used for identification. The classification process of this method only require to transform the image and make norm comparisons to determine the class of the image. The proposed method shows a comparable performance with the other known methods in the literature by means of accuracy. This paper proposes a novel method in sparsity based image identification that uses analysis dictionaries unlike the conventional sparsity based methods. one advantage of the proposed algorithm is the low computational cost of the classification process.