Abstract

The ability of object recognition system is to recognize a large number of objects constrained by a variety of factors such as the selection of a feature extraction method, quality of the images, and the classification models. This paper presents an approach to the recognition of complex shape objects using shape representation features. The shape representation features are the disk components which are calculated from morphological shape decomposition technique. The disk components of the shapes are generated using disk component generation Algorithm. These disk components are more primitive and easily matched with other disk components that are from another shape. These features are tested using the Quadratic classifier on different shapes. It is observed that the classifier gives good accuracy.
References

Object Recognition using Disk based Morphological Shape Decomposition Features


Index Terms

Computer Science Pattern Recognition

Keywords

Mathematical morphology Shape decomposition Disk components Feature vector Object recognition
and Classification