Abstract

Key factors like similarity, proximity, and good Many researchers have mentioned the significance of perceptual grouping and organization in vision and listed various continuation that guide to visual grouping of image. However, even to the present situation, many of the computational factors of perceptual grouping have remained unanswered. As there are several
probable partitions of the domain of an image into subsets, however it is significant to choose the correct choice. In general Image segmentation refers to the process of partitioning the input image into several disjoint regions with similar characteristics such as intensity, color, and texture, shape etc. There are several algorithms exist based on supervised, Unsupervised and Semi supervised techniques. But all algorithms has several disadvantages like lack of accuracy, more time, etc, The Existing semi supervised clustering method uses mouse clicks as prior information or certain constraints and then Clustering. In this paper semi supervised clustering using prior information is discussed. The prior information is nothing but selected color seeds using FGA and then EM Clustering. The proposed idea results in better visual appearance and also requires only lesser time when compared to the other segmentation using only GA or by using Kmeans clustering.

Reference

- Dong-Sun Kim, Member, IEEE, In-Ja Jeon, Seung-Yerl Lee, Phill-Kyu Rhee, and Duck-Jin Chung, Member, IEEE Embedded Face Recognition based on Fast Genetic Algorithm for intelligent Digital Photography
- A Yuntao Qian, Wenwu Si, School of Computer Science,Zhejiang University Hangzhou,310027, China,"Semi-supervised Color Image Segmentation Method",2005 IEEE.

**Index Terms**

Computer Science  
Pattern Recognition

**Key words**

EM Clustering  
Genetic Algorithm  
Fast Genetic Algorithm  
Semi Supervised Clustering