Abstract

Ant Colony Optimization (ACO) is nature inspired algorithm based on foraging behavior of ants. The algorithm is based on the fact how ants deposit pheromone while searching for food. ACO generates a pheromone matrix which gives the edge information present at each pixel position of image, formed by ants dispatched on image. The movement of ants depends on local variance of image's intensity value. This paper proposes an improved method based on heuristic which assigns weight to the neighborhood. Experimental results are provided to support the superior performance of the proposed approach.

References

- J. Kennedy and R. C. Eberhart, "Particle swarm optimization," Proceedings

**Index Terms**

Computer Science Algorithms

**Keywords**

Ant Colony Optimization Weighted Heuristics Edge Detection Pheromone