Abstract

Swarm Intelligence is driving research in multi-agent system based robotic and mobile control applications. A swarm optimization algorithm- Ant Colony Optimization (ACO) provides a stochastic ‘shortest path’ approach inspired by ant colonies to obtain global solution in an optimization problem. This paper reviews the impact of ACO in robotics, computer vision, control systems and sensor networks for autonomous systems. The performance of ACO as a metaheuristic or general optimization is discussed with respect to its consequences on parameters like energy efficiency, time for convergence, route selection, etc.

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**Index Terms**

Computer Science

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**Keywords**

Ant Colony Optimization, Robotics, Mobile Robots