

Model Of Ant-Based Robot Team For Exploratory Missions

Ninad N. Pradhan
ninad.pradhan@rediffmail.com

Abstract

Ants exhibit a variety of behaviours which synergise to result in discovery and exploitation of food sources around the nest. These behaviours can be adapted to robot teams which are performing exploratory missions on uncharted landscapes. Also, aspects of mobile robot coordination and control can be adapted to enhance the functionality of the team. This paper proposes a structure for a team of ant-emulating robots, a strategy for field operation, and behaviours which can be incorporated into the mobile agents on a foraging or exploratory mission.

