

Autonomous five legs robot navigation in cluttered environment using fuzzy Q-learning and hybrid coordination node

Related Articles

[Global path planning using artificial potential fields](#)

[Haptic object recognition using a multi-fingered dextrous hand](#)

[View All](#)

[Sign In or Purchase to View Full Text](#)

56 Full Text Views

8

Author(s)

[Prihastono](#) ; [Handy Wicaksono](#) ; [Khairul Anam](#) ; [Rusdhianto Effendi](#) ; [Adji S. Indra](#) ; [Son Kuswadi](#) ; [Achmad Jazidie](#) ; [Mitsuj...](#) [View All Authors](#)

[Abstract](#)

[Authors](#)

[Figures](#)

[References](#)

[Citations](#)

[Keywords](#)

[Metrics](#)

[Media](#)

Abstract:

The research of legged robot was rapidly developed. It can be seen from recent ideas about new systems of robot movement that take ideas from nature, called biology inspired. This research focused on five legs robot that inspired from sea star (phylum echinodermata). For cluttered environment, it is necessary to uses more than one learning module to control navigation of five legs robot. This paper proposes the use of hybrid coordination node to coordinate multi fuzzy Q-learning module. The fuzzy Q-learning was incorporated in behavior-based control structure and was considered as generation of primitive behavior like obstacle avoidance.

Published in: ICCAS-SICE, 2009

