Abstract

This paper presents the proposed autonomous mobile robot navigation scheme. The navigation of mobile robot in unknown environment with obstacle avoidance is based on using fuzzy logic and wavelet network. Several cases are designed and modeled in Simulink and MATLAB. Simulation results show good performance for the proposed scheme.

References

Mobile Robot Navigation using Wavelet Network and Fuzzy Logic

- P. Kumar, "Short-Term Load Forecasting using PSO Based Local Linear Wavelet Neural Network," International Journal of Instrumentation, Control and Automation, Vol. 01, No. 02, 2011.

Index Terms

Computer Science

Fuzzy Systems

Keywords

An autonomous mobile robot Wavelet Neural network Particle swarm optimization

Navigation

Path Planning

Obstacle avoidance