Abstract

This paper presents the proposed autonomous mobile robot navigation scheme. The navigation of mobile robot in unknown environments 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