

Analysis of various methodologies and sensors used for navigational control of various types of robots in today's world

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Abstract

This paper gives a review analysis of various methodologies and sensors used for navigational control of different types of mobile robots during the past few decades. For the review analysis various methodologies such as fuzzy logic, neural network, genetic algorithm, swarm intelligence, ant colony, dayani, daykun-bip, bacteria foraging, artificial immune system, gravitational search and other AI techniques for robot navigational control have been undertaken. Discussion and analysis of Ultrasonic, Infrared, Vision, Laser, Touch, IMU, Pressure and other sensors used for navigational control of robots have been carried out. This review analysis focuses on navigational control of wheeled robots, humanoid robots, legged robots, underwater robots, areal robots and other types of robots. This paper gives an overall knowledge in the field of robotics till date to the engineering and scientific communities around the world.

Key Words: Mobile Robot, Humanoid Robot, Underwater Robot, Neural, Fuzzy.

Biography

Dayal R. Parhi has his PhD on Robotics from UK. Now He is working as a Professor in the Department of Mechanical Engineering, NIT Rourkela. He has over 300 publications in various Journals and Conferences. He has guided more than 25 PhDs. His H-index is 36.



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