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A Project Report
On

"A MODULAR COST-EFFECTIVE MOBILE ROBOT NAVIGATION USING RFID TECHNOLOGY"

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ABSTRACT

A Modular Cost Effective Mobile Robot Navigation Using RFID Technology is used to collect the information of the surroundings and it decides the tasks based on the analyzed decisions. That is when no prior knowledge of the environment is available; the robot has to build a map of its surroundings as it moves. These three tasks ought to be solved in conjunction due to their interdependency. To realize this autonomous behavior, this robot system consists of complex hardware components and software components. This method is computationally simpler and more cost-effective than many of its counterparts in the state of the art. It is also modular and easy to implement since it is independent of the robot's architecture and its workspace. A set of numerical computer simulations are provided to illustrate the effectiveness of the proposed scheme.

This robotic vehicle is designed to know the status of the desired environment where the human can unable to go. Therefore he can thus judge the status of the environment depending upon the information given by the display.

In this project we are using two microcontrollers AT89C52, one at the base station and the other at the robotic vehicle. The microcontroller at the base station provides continuous flow messages to the display. The microcontroller at the robotic vehicle receives the knowledge of destination from the decoders. The microcontroller AT89c52, is superior as it has a built in memory of 256 bytes and 8k bytes of flash memory. The thermisterabs is used to sense the heat.