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PROJECT APPROVAL SHEET

This Final Year Project full report of Mobile Robot Navigation using GPS System was prepared and be submit by MOHD RASHIDI CHE BESON (Matrix No: 031080555) and been found very satisfactory in terms of scope, quality and presentation as partial fulfillment of requirement for the Bachelor of Engineering (Communication Engineering) in UNIVERSITI MALAYSIA PERLIS (UniMAP).

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ABSTRAK

Matlamat penghasilan projek ini adalah untuk memberi gambaran kaedah ataupun teknologi yang boleh didapati dan diguna pakai pada masa hadapan iaitu menggunakan pengemudi global (GPS) dalam penghasilan robot bergerak untuk pergerakan dari satu lokasi ke lokasi yang lain. Dalam konteks ini, pengemudi global merujuk kepada kebolehan ataupun kepekaan untuk mendapatkan satu kedudukan tanpa mengetahui lokasi pada bumi. Sistem ini menggunakan papan litar penerima GPS-JP7 untuk menerima data dari satelit. Sistem ini juga menggunakan pengawal terbenam mikro 8 bit dari keluarga pengawal mikro 8051 yang dihasilkan daripada Atmel sebagai papan litar utama untuk mengawal aplikasi yang mempunyai kaitan dengan pembangunan Robot bergerak menggunakan sistem GPS. Sistem ini menggunakan Robot bergerak sebagai model percubaan untuk dikawal dan bergerak menggunakan longitud dan latitud yang diberikan oleh penerima GPS-JP7. Robot bergerak ini juga menggunakan pengesan cahaya merah untuk menghindarkan dari sebarang halangan pada laluan. Sistem ini boleh dikomersilkan sebagai mesin yang dapat membantu manusia dalam apa jua pekerjaan kerana ia dapat beroperasi secara keseluruhan dengan automatik.

ABSTRACT

The aim of this project is to give an overview to investigate into the methods available using current and future technologies of globally navigating a mobile robot using the Global Positioning System (GPS). In this context global positioning refers to the ability to discover ones position when placed in any unknown location on the earth. This system were used GPS-Receiver JP7 as a board to receive data from the satellite. This system also using 8 bit embedded microcontroller 8051 Family which manufactured by Atmel as the main board to control all the application which related to develop Mobile Robot Navigation using GPS System. Mobile Robot is use as a prototype to be control. Mobile Robot has the mission to move from base point to other point using the longitude and latitude given from the GPS Receiver JP7. Mobile robot also using the infrared sensor to evasion any obstacle exist in their path. This system also can be commercialized as the system which can help people in every kind of work because it fully operated automatically.

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