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DESIGN OF ROBOTIC VEHICLES BY LOCALIZATION OF SMALL COST AND SIZE

Manbodh Kumar Gond[1], B.Naveena[2]

[1]M.Tech Student, Dept of ECE, Vidya Vikas Institute of Technology, Chevella, R.R Dist, T.S, India

[2]Assistant Professor, Dept of ECE, Vidya Vikas Institute of Technology, Chevella, R.R Dist, T.S, India

ABSTRACT:

In most of the cases or the situation the vehicles designed by the features of the robotic concept is implemented in the both indoor and outdoor for the task evaluation of its autonomous performance. Here the design of the system includes of the reduced cost that is of the low cost equipment and the reliable performance and of the reduced size respectively. Here in the present method a new technique is proposed by the design of the LOBOT based feature which includes the integration of the system of localization and the reduced cost constraints related to the working structure of the ground navigation basis features are included in it. Here the implementation of the p[resent system is based on the aspect of the real-time basis and must be addicted to the environments of the inside and outside that is capable of the both of the situation in terms of the affectionate functionality where the simple reduced cost equipments are considered in the system and is completely independent of the externalities and the factors of the external structures respectively. The main functionality of the LOBOT is identification of the moment based relativeness of the system followed by the inexpensive sensor integration and the augmentation of the GPS respectively. Experiments have been conducted on the present method where the evaluation takes place on the large number of the datasets in a well efficient manner in a positive way in which it is effective and efficient in terms of the performance and the outcome as compared to the drawbacks of the several previous methods respectively.

Keywords: LOBOT, Global positioning system, Robotic system, Sensor, Detector, Radio positioning, Data navigation and Localization respectively.

1. INTRODUCTION:

Now a days with the advancement in the technology there is a huge technological advancement takes place in the system in terms of the deployment where the humans can't be done and it is hard for the humans to implement is done by the design of the robot[1]. These plays a crucial role in the system where it is designed as per the requirement of the user with the reduced cost based constraints and independent on the externalities respectively. Here these are implemented under the scenario of the real time basis where the localization is accurate followed by the mission fulfillment respectively[2][4]. Actually these are designed based on the requirement and on the basis of the purpose of implementation and its design oriented specifications respectively. Previously there are a lot of methods for the implementation of the system based on the robot but there is no proper integration of the task in a combined fashion respectively.

BLOCK DIAGRAM

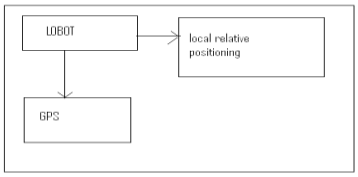

Fig 1: Shows the block diagram of the proposed method

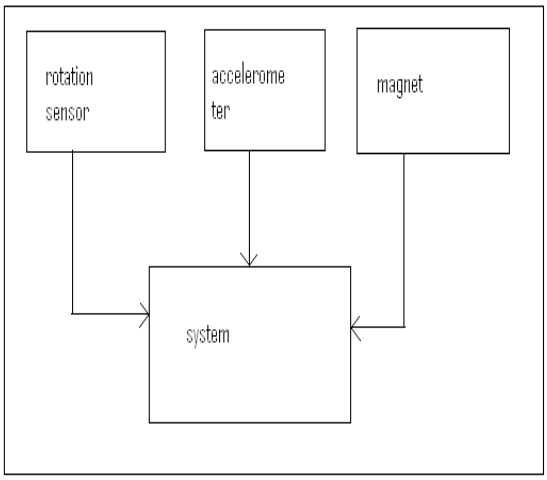

Fig 2: Shows the block diagram of local relative positioning

2. METHODOLOGY

In the proposed method the implementation of the system or the algorithm is shown in the above block diagram that too in a summarized fashion respectively. Here the present design of the system is based on the

real time aspect of the LOBOT based features where it includes the vehicle of the robot localization followed by the utilization of the help of the receiver oriented with the GPS for the proper positioning of the module which is relative and is done by the accelerometer respectively and it is a three dimensional strategy[5]. Here the complete control of the robot is done by the help of the integration of the sensors in side of the robot depending on the requirement and the functionality of the robot. Here the complete sensors and the other components are directly or indirectly interrelated to the microcontroller. Microcontroller is the heart of the embedded systems in which it takes the data completely in the form of the digitized fashion and it analyses the data and further processes the data and it sends the signal depending on the design of the applicability[7][8]. Here the activity of the accelerometer followed by the other components work or the functions based on the data acquired from the sensors and processed from the microcontroller respectively.

3. EXPECTED RESULTS

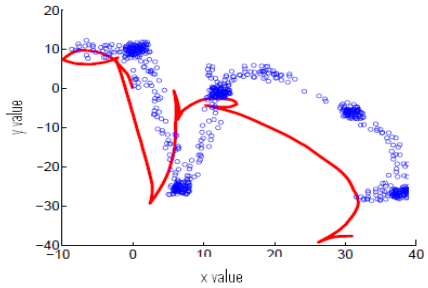

Fig 3: Shows the representation of the relative positioning

In this paper a comparison of the present method to that of the several previous methods are shown in the above figure in which the present method completely overcome the drawbacks of the several previous methods in a well oriented fashion respectively. Here the present method completely analyzes the problems of the several previous method is an integrated fashion where at the time of the design of the present method it must give importance at that situations again the problems must not be faced and to be successful in its strategy respectively.

4. CONCLUSION

Here the present method is completely different from the several previous methods here it completely works on the design of the real time analysis point of view and also

the three dimensional basis respectively. Here in the proposed method it is based on the implementation of the LOBOT based features which are cost effective and self constrained and the system of the accurate localization features, Here the approach of the localization is based on the hybrid scenario where it is concerned with the receiver oriented positioning of the module and also the complete control of the position is done by this scenario respectively. Here the LOBOT is the integrated form of the accelerometer followed by the sensor of the magnetic and also the sensor of the rotation of the motor respectively. Here the augmentation of the moment of the vehicle of the robot is completely under the control of the GSM module that is the receiver. Here we finally conclude that the present method is accurate in terms of the analysis and design followed by the working based characteristics respectively.

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