QR Code Based Human Position System

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Abstract— The QR code recognition often faces the challenges of irregular background fluctuations, inadequate illuminations, and distortions due to the unsuitable image acquisition method. This makes the identification of QR codes problematic, and hence, to deal with this problem, artificial intelligence-based systems came into presence. To improve the recognition rate of QR image codes, this article adopts an upgraded adaptive median filter algorithm and a QR code distortion correction method based on back propagation (BP) neural networks. This combination of artificial intelligence algorithms is capable of fitting the inaccurate QR image into the geometric deformation pattern, and QR code recognition is accomplished. The two-dimensional code distortion is addressed in this study, which was a serious research problem in the current software systems.

Keywords- artificial intelligence algorithm, QR image code, image recognition, two-dimensional code distortion.
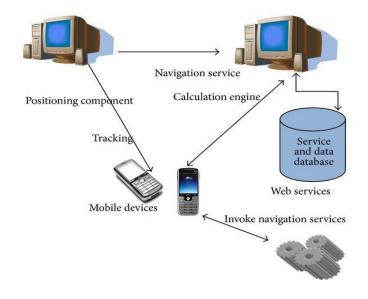
1. INTRODUCTION

It is a mobile application for Android platform with QR codes with reading capability that allows the user to readily

localize, navigate, and view the map of buildings on their smartphones. QR codes are Two Dimensional codes where data is encoded in optically readable format. QR code will be used all across the building to carry information required for the navigation system. The navigation application in mobile uses the camera to read frames continuously. The location detail from the QR code is used to provide the user his/her current location. The indoor positioning system is based on the application of Wi-Fi access points found abundantly in smartphones and buildings. Wi-Fi's indoor localization system has the least complexity. Thus, the methodology is partitioned into five steps: Indoor map design, selecting implementation technology, indoor localization development, indoor navigation integration and feedback display. Wi-Fi has been improved in terms of decreasing the power consumption and the complexity of design while maintaining the accuracy and speed of the system

2. PROPOSED METHODOLGY

The proposed system will provide quick and easy navigation as it is using QR code. The indoor positioning will be very accurate using QR code. Designing a system with QR code which is used for positioning. QR code will be used across

the building to carry information required for the positioning system.

The mobile application will scan the QR codes to provide accurate human positioning for users. The proposed system has modules.

3. ADVANTAGES

It is very Quick, easy. Paper-pen is not using in this system (Paperless). It's very Safe, reliable and it provide the Top-quality service. It is user-friendly. Easy to integrate. The cost of QR code is very low. Complexity and time to implement is less.

Use-full for organizational level. Easy to use, not complicated

4.DISADVANTAGES

This application Require Android Phone and Require Internet Connection.

5.SYSTEM REQUIREMENT

HARDWARE REQUIREMENTS:

Processor   : Intel CORE I3
RAM   : 4 GB
Hard Disk   : 64 GB

SOFTWARE REQUIREMENTS:

Operating System: Microsoft Windows-7.

Software Package: MySQL, Android Studio

6.FUTURE SCOPE

This system can be useful for school, colleges, and industry. For tracking location of staff in an organization. Finding a room or office in a hospital, school or other building that is unfamiliar

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REFERENCES

[1]] A. S. and V. B, "Location based intelligent mobile organizer" Mobile and Pervasive Computing Department TIFAC-CORE in Pervasive Computing Technologies IEEE, pp no. 488-491, 2011.

[2] A. S. Manav Singhal, "Implementation of location-based services in android using GPS and web services", IJCSI International Journal of Computer Science Issues, Vol. 9, Issue 1, No 2, January 2012, 2012.

[3] G. S. P. P. Prof. Seema Vanjire, Umesh Kanchan, "Location based services on smartphone through the android application", International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), Vol. 3, Issue 1, January 2014.

[4] Hongyu L, Hui C, Ying W, Yong C, Wei Y. Prediction of two-dimensional topography of laser cladding based on neural network. Int J Mod Phys B. 2019; 33:1940034.

[5] Rathee G, Sharma A, Saini H, Kumar R, Iqbal R. A hybrid framework for multimedia data processing in IoT-healthcare using blockchain technology. Multimed Tools Appl. 2019; 19:1–23

[6] Jiang S, Wu W. inventors; Fujian Landi Commercial Equipment Co Ltd, assignee. Method and system for decoding two-dimensional code using weighted average greyscale algorithm. United States patent US 10,108,835; 2018.

[7] Vera E, Lucio D, Fernandes LAF, Velho L. Hough transform for real-time plane detection in depth images. Pattern RecognitLett. 2018;103(FEB.1):8–15