Library management using IoT

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ABSTRACT

The main aim of this paper is to develop an advanced technology of library management with the application of iBeacon and Bluetooth module. Python is used as the main programming language which is the default, provided by Arduino. It is meant to save time and human energy also. This project is made with the help of iBeacon technology. Our system aim is easy to track the book and save time.

Keywords— Python, Library management, IoT

1. INTRODUCTION

This system is about library management using the internet of things. This is useful to search for a book easily. Since for saving human energy, the circuit can be built with minimal resources. It is efficient, user-friendly and easily accessible. Current library scenario makes library management tedious and hectic job using this system we can avoid this problem. The main aim of this system is to develop an advanced technology of library management with the application of iBeacon and Bluetooth module it is a small electronic device. This system is the fastest easiest most efficient way to track, Locate and manage library materials with low cost compared. Python is used as the main programming language which is the default, provided by Arduino. It is meant to save time and human the readers to the system that allows the user to control and access the entire library from one location. The main goal of this system is to overcome issues like finding books and stack maintenance. The other goal includes reducing manual work, reducing the time wasting in the queue.

Energy also the system is made with the help of iBeacon technology which is used to track book easily and save time. It also includes the functioning of the library environment in a smart and efficient fashion with an enhanced part in the connectivity of systems, the level of service is dependent on individuals and this puts a requirement on management to run training continuously for staff to keep them motivated and to ensure they are following the correct procedures. It can be easy to accidentally switch details and end up with inconsistency in data entry or in handwritten orders. This has the effect of not only causing problems with customer service but also making information unable to be used for reporting or finding trends with data discovery. Reporting and checking that data is robust can be timely and expensive. This is often an area where significant money can be saved by automation.

2. OBJECTIVE

Manual systems put pressure on people to be correct in all details of their work at all times, the problem being that people aren’t perfect, however much each of us wishes we were. With manual
Bluetooth. There is a QR code on the librarian's desk which needs to be scanned from users mobile so as to confirm the booking for a book which is needed. The QR code scanned enables the system to identify the starting point of user and after knowing the position of the user system will start to navigate the user by providing needed direction in users mobile. When the user reaches nearby the book application will give low distance signal in the device. Then the user needs to check whether book is in that shelf or else continue walking. After the user reaches near the appropriate shelf the mobile application will give notification on the user device that user is in right shelf which contains a book. RGB lights situated in front of the book on the shelf will start glowing to indicate the book user needs. And hence the user can search book easily that is needed.

4. CONCLUSION
The Library Management System allows the user to store the book details. This software allows storing the details of all the data related to the library. The implementation of the system will reduce data entry time and provide readily calculated reports.

5. REFERENCES
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