

LIBRARY MANAGEMENT

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RFID Based Library Management System

- The RFID based Library Management system facilitates the fast issuing, reissuing and returning of books with the help of RFID enabled modules. Traditional technology like Barcode system had so many issue, it require line of sight while reading barcode stickers as well we can read only one barcode at a time. To overcome this RFID technology is invented.
- It directly provides the book information and library member information to the library management system and does not need the manual typing.
- This technology has slowly begun to replace the traditional barcodes on library items and has advantages as well as disadvantages over existing barcodes.
- The RFID tag can contain information related to books such as book's title or code, without having to be pointed to a separate database. With RFID technology we can reduce manual work and improve utilization of resources like manpower, infrastructure.



Logic Behind the software

- The concept of RFID is an extension to electronic barcode, which can be used to uniquely identify or track the tags attached with books in library.
- The tag consists of an antenna and a tiny chip which stores small amount of data to identify each item. These tags are applied directly on library books and can be read with a RFID Reader.
- Line of sight is not essential for reading the tags with the reader, therefore, the books require much less human handling to be read and processed. Server software integrates the reader hardware with the Library Automation Software for seamless functioning of book keeping.
- UHF RFID readers with antennas installed at gate and library cards contain RFID-transponders which are able to electronically store information that can be read / written even without the physical contact with the help of radio waves.
- The RFID tag does required line of sight that's why It can be read even when it is embedded in an item, such as in the cardboard cover of a book. It can also store data such as stack number, accession number, book number,

author information etc., but barcode is limited to just an identification number.



RFID in library

- A library is a collection of books, apart from books many libraries are become access points for maps, prints, or other documents on various storage media.
- such as audio tapes, CDs, LPs, cassettes and DVDs.
- Basic tasks in library management include the planning of acquisitions of materials, arranging the books according to the library classification, preservation of materials and developing and administering library computer systems.



Advantages of RFID based Library Management System

- Accessing number of books at a time.
- Locating the physical location of the book
- Accounting/Stock verification of the materials.
- Reduce manual work.
- Time saving approach.

