LIBRARY AUTOMATION:

JSSATEN library has continuously changed itself from a traditional to a modern one with the introduction of different technologies available for library. The library uses KOHA **Library Management Software,** which supports all in-house operations (basic as well as advanced) and services of the Library. All in-house activities in the Library including Acquisition, Cataloguing, Circulation and Serials Control are fully computerized since July 2008. Retrospective conversion of bibliographic records has been completed and Online Public Access Catalogue (OPAC) of the Library is operational and accessible on the Intranet. Using OPAC, user can search the books by Author, Title, Subject and keywords. Also, the user can get information about the latest edition of periodicals, books and the status of the documents.

RFID LIBRARY MANAGEMENT SYSTEM

In 2016, Library implemented **RFID enabled Automation and Surveillance**. Every document in the Library is being tagged with **RFID tags** and users are being issued **Smart cards**. One self – services station is installed to facilitate users with self issue/return of documents and one automatic drop box have been installed to return the books. Two security gates, i.e. theft detection pedestals, have been installed at the entrance and exit gates of the library to check the movement of unissued books outside the library. The database of books available in the Library is being updated on day to day basis with details of recently acquired books.

Fig 1: RFID Gate Antenna

Using RFID in libraries saves library staff's time by automatising their tasks. An establishment that uses RFID library management saves a book reader, precious time that he would have been spent, waiting for his turn in a queue for borrowing or returning a book. Taking care of books and making them available to the book readers are important tasks. Most of the library staff's time is spent in recording information of incoming and outgoing books. Borrowing and returning of books can be fully automatized with the help of self checkin/out systems. This system involves installation of special software. A person using this system to borrow books, is presented with options on a computer screen. The person has to identify himself with a code, which is preferably a personal identification number, or any form of unique identity code. Books selected by the person are identified by the system's built-in RFID reader. And, the surveillance bit in the book's tag is deactivated by the system. When a book is returned, the check-in/out system activates the surveillance bit.

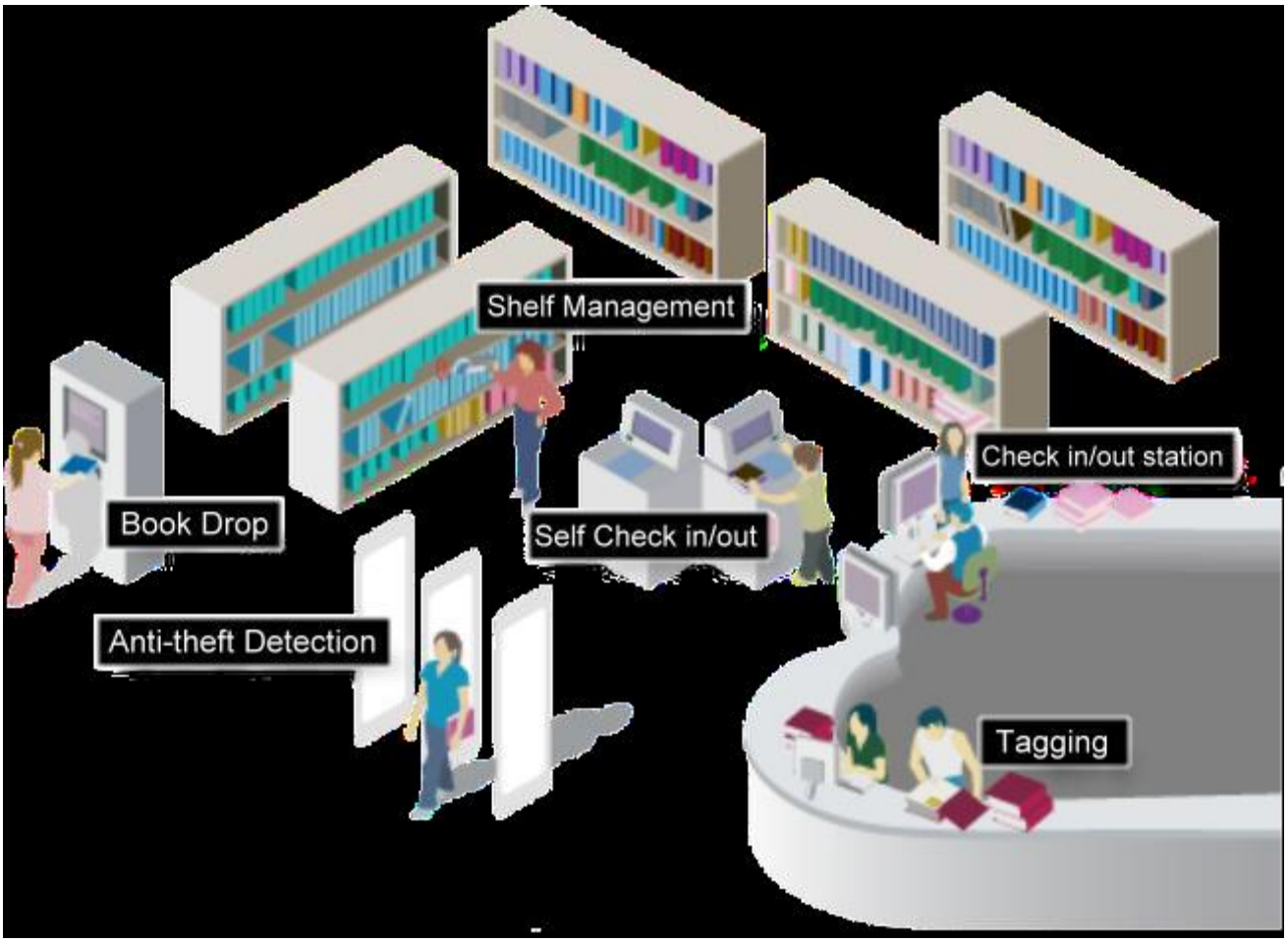
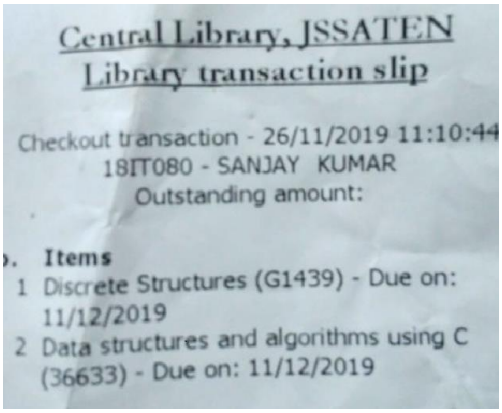


Fig 2: RFID Library Management System

Fig 3: RFID shelf check-In & Check-Out (KIOSK) System



Central Library, JSSATEN
Library transaction slip

Checkout transaction - 26/11/2019 11:10:44
18IT080 - SANJAY KUMAR
Outstanding amount:

Items
1 Discrete Structures (G1439) - Due on: 11/12/2019
2 Data structures and algorithms using C (36633) - Due on: 11/12/2019

Fig 4: RFID Check-In – Check-Out Receipt

Fig 5: RFID Shelf Check-In & Check-Out (KIOSK) System

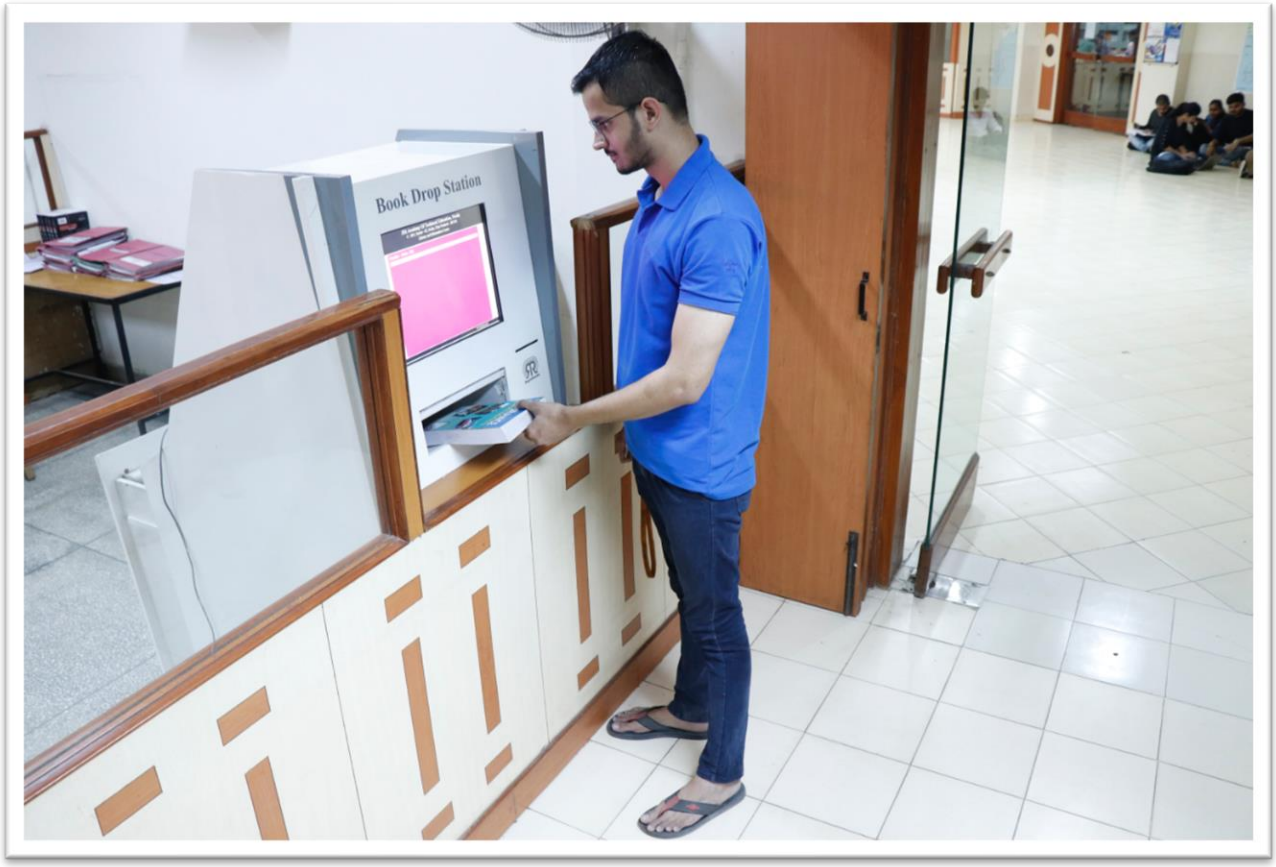


Fig 6: RFID Automatic Book Drop Box (Book Return box)