CHAPTER 4

RESULTS AND CONCLUSION

4.1. Introduction

The details of RFID based library management system are presented in earlier chapters. This library management system is developed and implemented using the MATLAB software. The implementation results are presented in the following sections. The present system is provided with the mentioned used features for the efficient management of library functioning.

(i) Books

(ii) Add Books

(iii) Books Under Issue

(iv) Books not Returned

(v) Books Search by UID

4.1.1 Books

When we click on Books item, the entire books data available in main library and clicking on to department menu, it displays the books data available list in the department as shown in Figure 4.1.

Figure 4.1 : Electronics and communication library books database
4.1.2. Add Books

When the new books are added to the library database using RFID Read/Writer, the reader reads book tag information and adds it to library database. After the addition of new books to the library database the menu will appear as shown in figure 4.2.

![Figure 4.2: Electronics and communication books database before adding]

Adding new books on to library database, reading the new books information using RFID Read/Writer is as shown in Figure 4.3.

![Figure 4.3: Book tag information reading through RFID Reader]
After the addition of new books to the library database the menu will appear as shown in figure 4.4.

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<tr>
<th>UID</th>
<th>Title</th>
<th>Author</th>
<th>Edition</th>
<th>Price</th>
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</table>

Figure 4.4: Electronic and communication books database after adding five books

4.1.3. Books Under Issue

To issue the book to the student, the student Name, UID No, issue and return date must be entered. Before issuing of books, department books database and student databases are as shown in Figures 4.4 and 4.5 respectively.

Figure 4.5 : Student database

Before issuing books student database shown in above Figure 4.4. To issue five books to the student, open the item issue of books main window and enter
the all information in the window, and click the delete option so that the issued books are deleted from department books database and add same to student database. They are shown in Figures 4.6 and 4.7 respectively.

4.1.4. Returning of books

When the student returns the books, the system will read the student and book UID through RFID reader and delete the books from the student database and adds to department books database. The student and department books database are shown in Figures 4.8 and 4.9 respectively.
4.1.5. Book search by UID

The book search in the library can be made by two ways, one is using book UID and second one is by student UID. In general the search is down by with book UID. when we enter the book UID as shown in window of Figure 4.10, if the book is available it will displayed in the window other wise displayed with NO DATA as shown in Figure 4.11.
4.2. Conclusion

RFID technology is found to be a versatile technology in many real-time applications, especially in library management systems. This provides an intelligent library management, which creates better service quality with quick and effective benefits to both library management and students. This technology can be applied to a system of volume. Either it may be a small departmental library or vast university library, in big libraries, its effects are more obvious and applicable. This RFID technology also provides the facility of self-check for the
library staff and non-returned books effectively. So, it is expected that this RFID technology will soon replace the presently existing technology method.

4.3. Scope of Future Work

The present work is intended to further, by adding web technology. This web technology can provide additional features of searching the books present in the library using their computers or mobile devices. For this online service, a suitable web-based system is under process in our department. For this purpose, the new features available in RFID and internet technologies are to be applied effectively, and planned to develop this application.