

# Smart Library Management Using RFID

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**Abstract:** *This research paper proposes a smart library management system that uses radio-frequency identification (RFID) technology. The system aims to automate various library functions, such as book borrowing, returning, and inventory management, and make them more effective, and secure. The RFID tags are attached to the books, and RFID readers are placed at a station in the library. The system can identify and track the books in real-time, and update the library database accordingly. This paper discusses the design, implementation, and evaluation of the proposed system, including its hardware and software components, user interface, security features, and performance metrics. The results show that the smart library management system using RFID can significantly improve the library's operations, reduce the workload of the staff, enhance the user experience, and prevent theft and loss of books. The paper concludes with recommendations for further research and practical applications of RFID technology in library management.*

**Keywords:** Library Management, GSM, PIC16F886, RFID Reader, RFID Tag, RFID Technology..

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