CONCEPT DESIGN FOR A RFID ENABLED STUDENT WORKBOOK

ABSTRACT

Embedded systems are commonly found in consumer, cooking, industrial, automotive, medical, commercial and military applications. Telecommunications systems employ numerous embedded systems from telephone switches for the network to cell phones at the end-user. Computer networking uses dedicated routers and network bridges to route data.

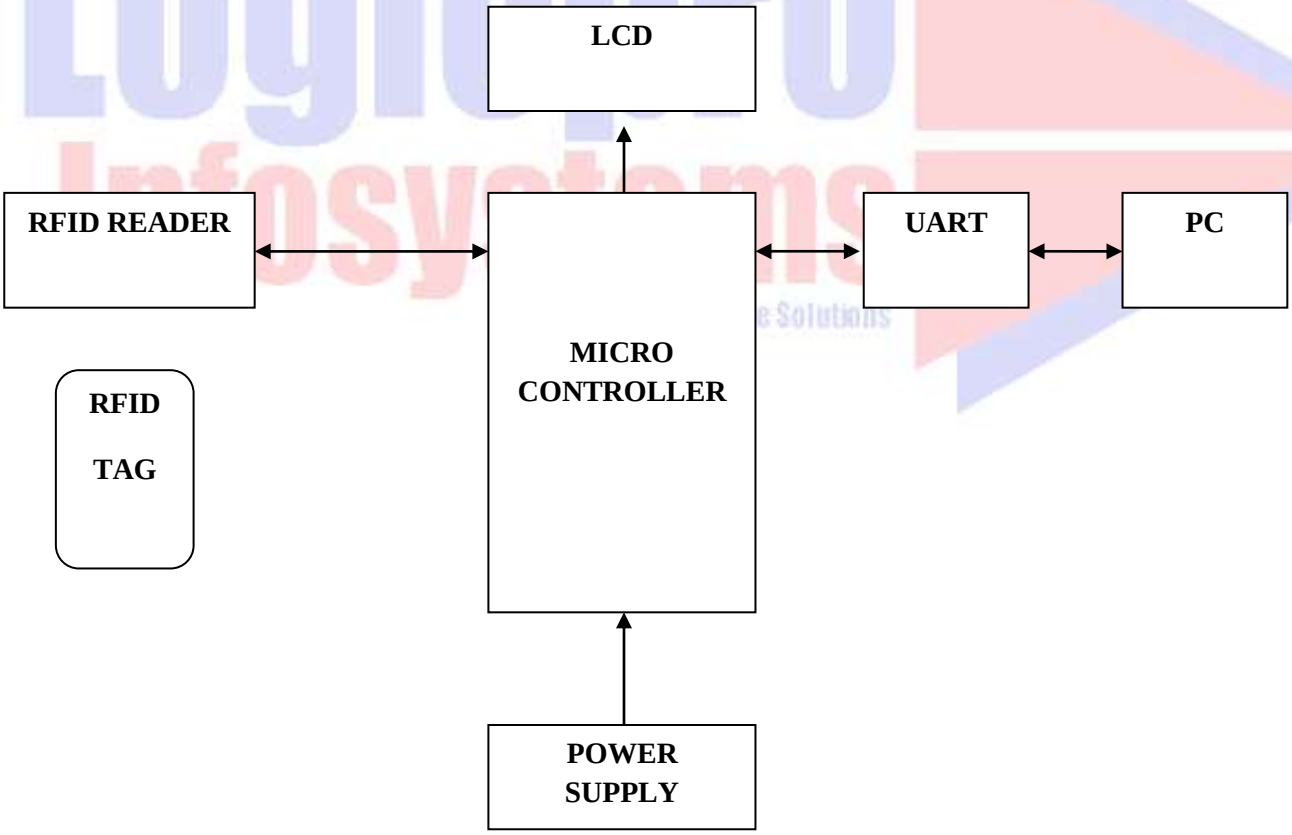
In this paper, the concept for radio frequency identification (RFID) enabled student workbook is discussed and a prototype system developed. The workbook is a question-answer notebook in traditional paper format in which hand written solutions to student assignments are written.

An embedded RFID tag in the workbook is then used for the student to store his/her solution to the attempted assignment questions at home. On entry to the classroom and once the questions have been attempted, an RFID reader in the classroom will retrieve the answers from the workbook, automatically collate the results and instantly provide a summary of these results for the individual student and the class as a whole. If problems are highlighted, the teacher can then investigate issues with individual students and review the answers provided in the workbook.

PROPOSED SYSTEM

In this project, we are going to implement RFID enabled student notebook. It is not necessary that students should carry their notebooks to the school, they can just take the RFID tag so that we can use it as a portable thing for carrying it to school. At home, students will use the RFID tag and do their work in PC, which can be stored in Tag. Then students can bring the tag to school and the reader in the school reads the tag, which can be viewed in school PC. And we can use the Tag for the student's attendance, because each tag has unique code.

BLOCK DIAGRAM



HARDWARE REQUIREMENTS

- MICRO CONTROLLER
- PC
- RFID reader
- RFID tag
- LCD
- POWER SUPPLY
- UART

SOFTWARE REQUIREMENTS

- MCU COMPLIERS
- PROTEUS SOFTWARE

MICROCONTROLLER may ATMEGA,8051,PIC OR Arduino