

**G.PULLA REDDY ENGINEERING COLLEGE (Autonomous):Kurnool**

Affiliated to JNTUA, Ananthapuramu



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

BATCH NO: 14

SEMESTER : VII

SECTION: A

**MINI PROJECT TITLE:**

ALARM CLOCK USING REAL TIME CLOCK

**Project Batch:**

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## **ABSTRACT**

Traditionally College or School bells were operated by Human beings. As automation is increased in every sector here design of automatic college bell system is being presented. The main Aim of this project is to implement an Automatic college bell system using RTC and Arduino board. The main task of this system is to ring the bell at predetermined time with accuracy and without any human intervention. We used three major components which are IC RTCDS1307, Arduino Uno Board, and 16<sup>2</sup> LCD modules. Here Arduino is used for reading time from ds1307 and display it on 16<sup>2</sup> LCD. DS1307 sends time/date using 2 lines to Arduino. A buzzer is also used for alarm indication, which beeps when alarm is activated. Here, the code is designed in a way such that when this programmed time is equals to real time then the bell is switched on through relay for predetermined time.so the bell will be activated for every 2 or 3 hours as per exam schedule, the bell will be ringing for 1 minute from the instant it is activated and simultaneously LCD screen will display the completion of exam timings, which indicates the students to submit their answer sheets and to faculty to collect answer sheets from students. There is provision to change the bell ringing time so that it can be reused again and again.

### **Components Required:**

1. Arduino UNO
2. LCD (Liquid Crystal Display)
3. RTC DS1037
4. 220 $\Omega$  resistor
5. Push Buttons
6. Buzzer
7. Connecting wires
8. Bread Board
9. 5V Power supply

## CIRCUIT DIAGRAM:

### Alarm Clock

by Tittiamo68

