VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELAGAVI – 590 018

An Assignment on

DIGITAL ALARM CLOCK USING ARDUINO

Submitted as Subject assignment work for

MICROCONTROLLER AND EMBEDDED SYSTEM (21CS43)

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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DIGITAL ALARM CLOCK USING ARDUINO

Abstract-

In this project, we designed an Arduino based Real Time Clock with alarm. A Real Time Clock or RTC is a battery powered clock that measures time even when there is no external power or the microcontroller is reprogrammed. An RTC displays a clock and calendar with all timekeeping functions. The battery, which is connected to the RTC is a separate one and is not related or connected to the main power supply.

When the power is restored, RTC displays the real time irrespective of the duration for which the power is off. Such Real Time Clocks are commonly found in computers and are often referred to as just CMOS . Most microcontrollers and microprocessors have built in timers for keeping time. But they work only when the microcontroller is connected to the power supply. When the power is turned on, the internal timers reset to 0. Hence, a separate RTC chip is included in applications like data loggers for example, which doesn't reset to 0 when the power is turned off or reset.Real Time Clocks are often useful in data logging applications, time stamps, alarms, timers, clock builds etc. In this project, a Real Time Clock, which displays accurate time and date along with an alarm feature is designed.In this project an attempt is made to develop and explain the use of Digital alarm clock using Arduino.

1.INTRODUCTION

Embedded system is otherwise called an implanted PC framework, much the same as its name suggests, it is an uncommon type of an overall PC. To under- stand what precisely an inserted framework is, we should give it away from a PC. "A PC is an electronic gadget, working heavily influenced by directions put away in its own memory. These guidelines instruct the machine. The PC is equipped for tolerating information (input), preparing information numerically and intelligently, delivering yield from the