Automatic complaint box using RF id and GSM

Abstract

The purpose of this paper is to simplify the complaint registration system using GSM module and RFID technology. Radio Frequency Identification (RFID) is one of the automatic identification technologies more in vogue nowadays. There is a wide research and development in this area trying to take maximum advantage of this technology, and in coming years many new applications and research areas will continue to appear. Radio-frequency identification (RFID) is the wireless non-contact use of radio-frequency electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects. The tags contain electronically stored information. This sudden interest in RFID also brings about some concerns, mainly the security and privacy of those who work with or use tags in their everyday life. RFID has, for some time, been used to access control in many different areas, from asset tracking to limiting access to restricted areas. The complaint which is registered by the students is directly sent to the authorized person & he is responsible for taking further action.

INTRODUCTION

Automatic complaint box using RFID & GSM module is a recent upcoming technology in this scientific world. RFID system use radio waves to transmit information from an integrated circuit tag through a wireless communication to a host computer (microcontroller). Compared to other automatic identification like optical barcode systems, RFID has several advantages, such as: tag data can be read automatically without line of sight, simultaneously tag reading and from a range of several meters. Most RFID systems on the market now a days, are proprietary systems that lead to a widespread RFID acceptance and industry growth. So a worldwide effort is being made to standardize RFID systems, for emerging application support interoperation of products from different suppliers and even interoperation between RFID systems in different countries and barcode to RFID migration challenges. One of the hot topics related to RFID technology is privacy and security. RFID stands for Radio Frequency Identification, which is a wireless communication technology that is used to uniquely identify tagged object s or people. RFID systems have been widely used in many application areas, such as: inventory control, product tracking through manufacturing and assembly, parking lot access and control, container/pallet tracking, ID badges and access control, equipment/personnel tracking in hospitals, etc. RFID systems use radio waves to transmit information from an integrated circuit tag through a wireless communication to a host computer. These systems consist of three components: the tag (transponder), the reader (interrogator) and the host computer (controller). The reader communicates with the tags in its wireless range and collects information. About the objects to which tags are attached compared to other automatic identification technologies, like optical barcode systems; RFID has several advantages, such as: tag data can be read automatically without line of sight, simultaneously tag reading and from a range of several meters. Most RFID

systems on the market nowadays, are proprietary systems that lead to a barrier to widespread RFID acceptance and industry growth. So a worldwide effort is being made to standardize RFID systems, for emerging applications support inter-operation of products from different suppliers and even inter-operation between RFID systems in different countries. The major issues that held back the adoption of RFID can be spited into technology, standard, patent, cost, infrastructure, and return on investment (ROI), Currently, there are several protocols for RFID technologies to achieve certain security and privacy levels. They can be classified into three main categories: security in basic tags, security in symmetric-key and security in public-key. The goals that RFID systems should reach regarding security and privacy are: maintaining data security, preventing counterfeiting, preventing unwanted recognition and tracking, and coping.

Block Diagram :