

ELECTRONIC PROTECTION TO EXAM PAPER LEAKAGE

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Abstract - The examination is a very important aspect of education system. Every year we get the news regarding postponed/ cancelled exam because of paper leakages. So, we require a design which is manageable and compact for “examination paper leakage security framework” that will be a protected framework using ARM processor. In this circuit GSM kit, electromagnetic lock, keypad, and RFID module would be utilized. The “Electronic Control Box” will be an embedded framework which can be implemented using ARM processor. Whether anybody tries to open that box previous and afterwards the time duration of the RFID swipe, the framework communicates to the university powers by sending SMS through the GSM. Therefore, we can immediately recognize that the question papers have been leaked. We have proposed an framework to identify theft and avoid the leakage of exam papers before exam date. In this recommended system, the exam papers which are placed inside “the electronically locked box” will be sent to the authorised examination centers. The box will be unlocked after a predefined time, date and only by administrator. The exam papers will be placed in the sub-boxes. Secret ID secures these boxes the administration will send an SMS with the password which can open the specific sub-boxes.

Key Words: Paper, leakage, protection, Exam, Theft, etc

1.INTRODUCTION

The system we use now a days is very conventional and has been in use for many years. This system contains “the sealed boxes” comprising the exam papers that will be dispersed to the examination centers. This framework includes a lot of restrictions that might lead to exam papers leakage at different instances same time the box is moved from “printing area to examination centers”. This happens because of not difficult tampering of sealed boxes and more interference of people.

Another technique that is in use today includes the mailing of the exam papers from the university to particular college’s former to then the examination. The colleges take the Xerox of the exam paper and then the examination methodology follows. We do know that this specific strategy also includes lots of limitations and restrictions. The sever interruption might occur, the website might have a chance to be hacked, and more than 100 colleges must take Xerox that includes the threats such as framework failure, energy failure, and the paper leakage.

The knowledge or basic information required for proposed framework that includes the electronic security may be taken from current devices like Electronic lockers, automated teller machines. This framework includes the incorporation of specific

electronic peripherals that operates on the methodology depends on GSM, UART, RFID and I2C.

In some security systems they provide you with a locking mechanism but it cannot detect any malicious practices which can happen during transport of the papers. Also if box is opened at any time forcefully a message will be send to authorities (Co-Ordinator and University) that will drastically reduce response time. In doing that we are using GSM module where GSM is an all inclusive acknowledged standard for computerized cell communication. GSM utilizes narrowband Time Division Multiple Access (TDMA) for giving voice and content based administrations over cell phone systems. [1]

There are technologies that offers you a pin configuration to provide some sort of security but this pin can also be leaked or can be easily given to any non-authorized person this can be avoided by using RFID card as a passkey to unlock the box which is not as easy as it is to give pin to someone else. By using this technology we will provide more security than other systems. RFID based access –control system allows only authorized persons to open the locker with GSM technology. Basically an RFID system consists of an antenna or coil, a transceiver and a transponder programmed with unique information. There are many different type of RFID systems in the market. GSM is a globally accepted standard for digital cellular communication and is a common European mobile telephone standard for a mobile cellular radio system. [2]

2. BLOCK DIAGRAM

First, the university will send the exam paper to the college in “an electronic sealed box” that will be termed as “Electronic Control Box”. This “electronic control box” is an embedded framework, which might have been proposed utilizing “the ARM processor” that has inherent RTC to observe “the electronic control box”.

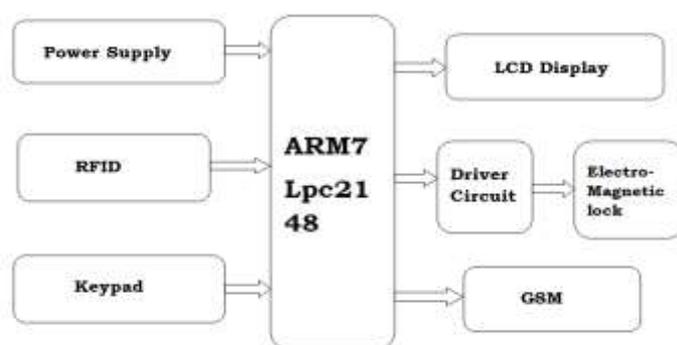


Chart -1: Block Diagram

The university management will send a distinctive secret key to the main authority of the college before 10 minutes of the

examination. The university provides legal “RFID card with a fake RFID card” to the main authority of the college. The certified person swipes the card, if the card is legal, then the framework recognizes for the secret ID. The chief examiner wants to type the secret with the use of a keyboard, which is given by the university. Whether secret ID is true, the electromagnetic lock rotates and opens “the Electronic Control Box”. This framework has two receivers, a) the transceiver 1 is an embedded framework connected to “the electronic control box”. b) the transceiver 2 will be the module with the university powers. The current module deals with the software and hardware.

In this framework, we would utilize the initial level of security that is an RFID card with a specific or distinctive amount which may be given by the university to each college. “Global system for mobile communication” will be utilized for any unapproved client altering, whether any unapproved clients attempt to unlock the box, then instantly a message will go to the “university management” through the “Global system for mobile communication”. The keypad is the “second level security” in this framework for time, date and secret key matching.

3. CONCLUSIONS

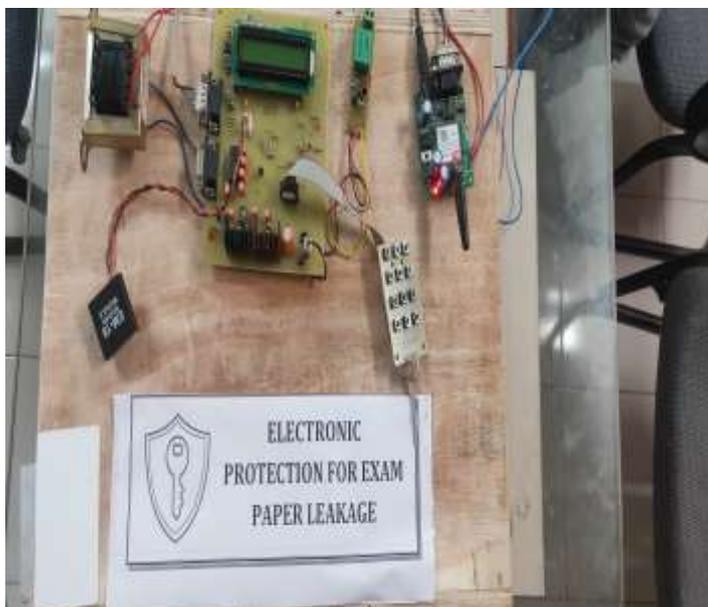
The Electronic Protection to exam paper leakage system create system without interactions for exams and confidential documents. Using this system, the teachers has no need to protect the papers themselves. The teachers only needs to have RFID and a password and all the exam process can be made secured. Exams are not postponed and hence there is less stress on examination department as re-exams are avoided.

4. FUTURE SCOPE

It can be extended in various other applications where protection of documents or any valuable is needed. It can be used in banks for security purpose. To protect some secret and confidential documents to our country.

5. FINAL RESULT

The final result of the circuit is given below



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