UNIVERSITY OF ENGINEERING AND MANAGEMENT,KOLKATA

Project Work

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INTRODUCTION

- ✓ Radio frequency identification (RFID) is a prominent technology for a wide array of applications, from inventory tracking to payment processing.
- ✓ An RFID door locking system requires RFID tags, antennas, an RFID reader, and a transceiver in order to function as a complete system.

WORKING PRINCIPLE

- ✓ The project that we will be working on is an RFID door lock that will be available to the general public at an affordable price. The goal of this project is to create a more convenient way to unlock your door than the traditional key and to provide more security.

- ✓ The design consists of two components. The first component is the actual door lock that must be installed in the doorframe. This will be controlled by a magnetic lock and will need to be powered. The second component is a relatively small module that one can install anywhere near the door. This module is responsible for the RFID sensing.

IMPORTANCE IN TODAY'S WORLD

✓ Easy to configure:

Rather than cutting new keys and retooling locks, configuring an RFID entry system is primarily digital

✓ More secure:

The RFID tags used in many modern key card and fob credentials are highly encrypted, which provides added security for your system

✓ Video surveillance at the door:

Enhance your RFID security system by installing video readers at key entry points.

IMPORTANCE IN TODAY'S WORLD

✓ Versatile deployment options:

RFID chips are small and easily embedded in a variety of access methods, such as ID badges, key cards, and fobs.

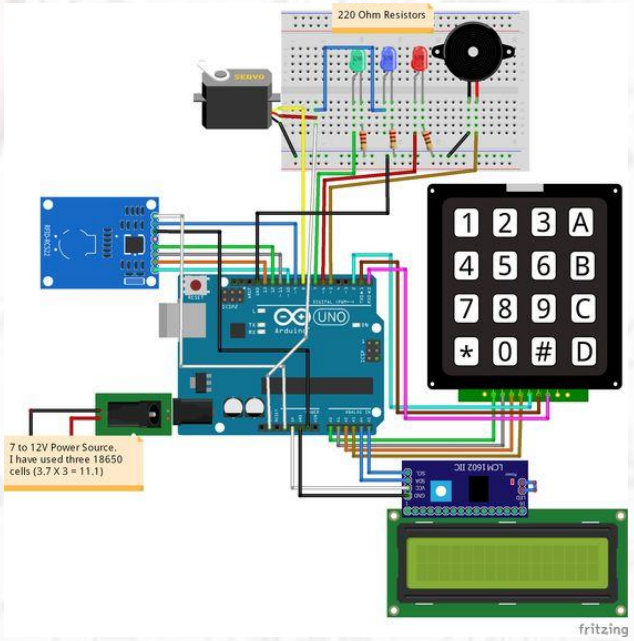
✓ Increased awareness:

Data is automatically read and stored on RFID devices, making RFID door entry systems a powerful analytics tool for any business.

✓ Low maintenance costs:

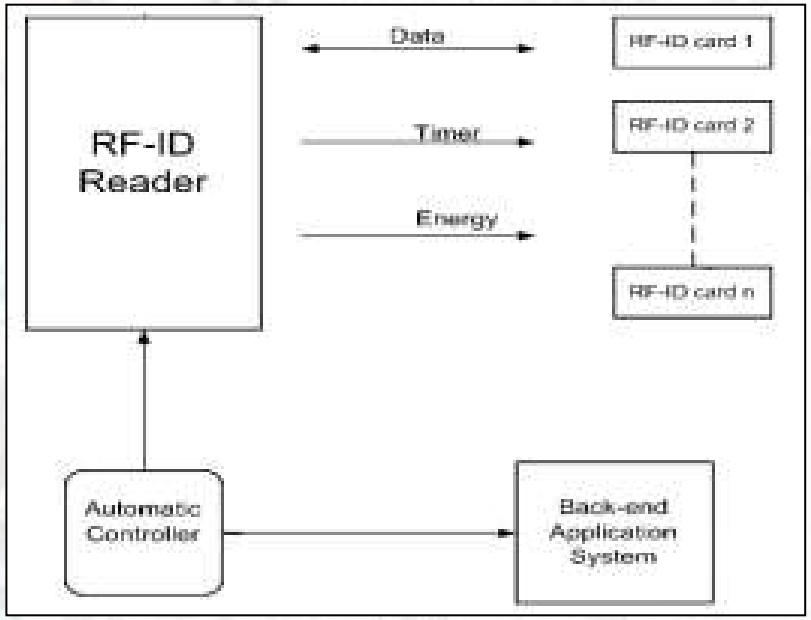
One of the reasons this technology is so prevalent in commercial uses is the relatively low maintenance cost of RFID access control systems

➢DEMONSTRATION

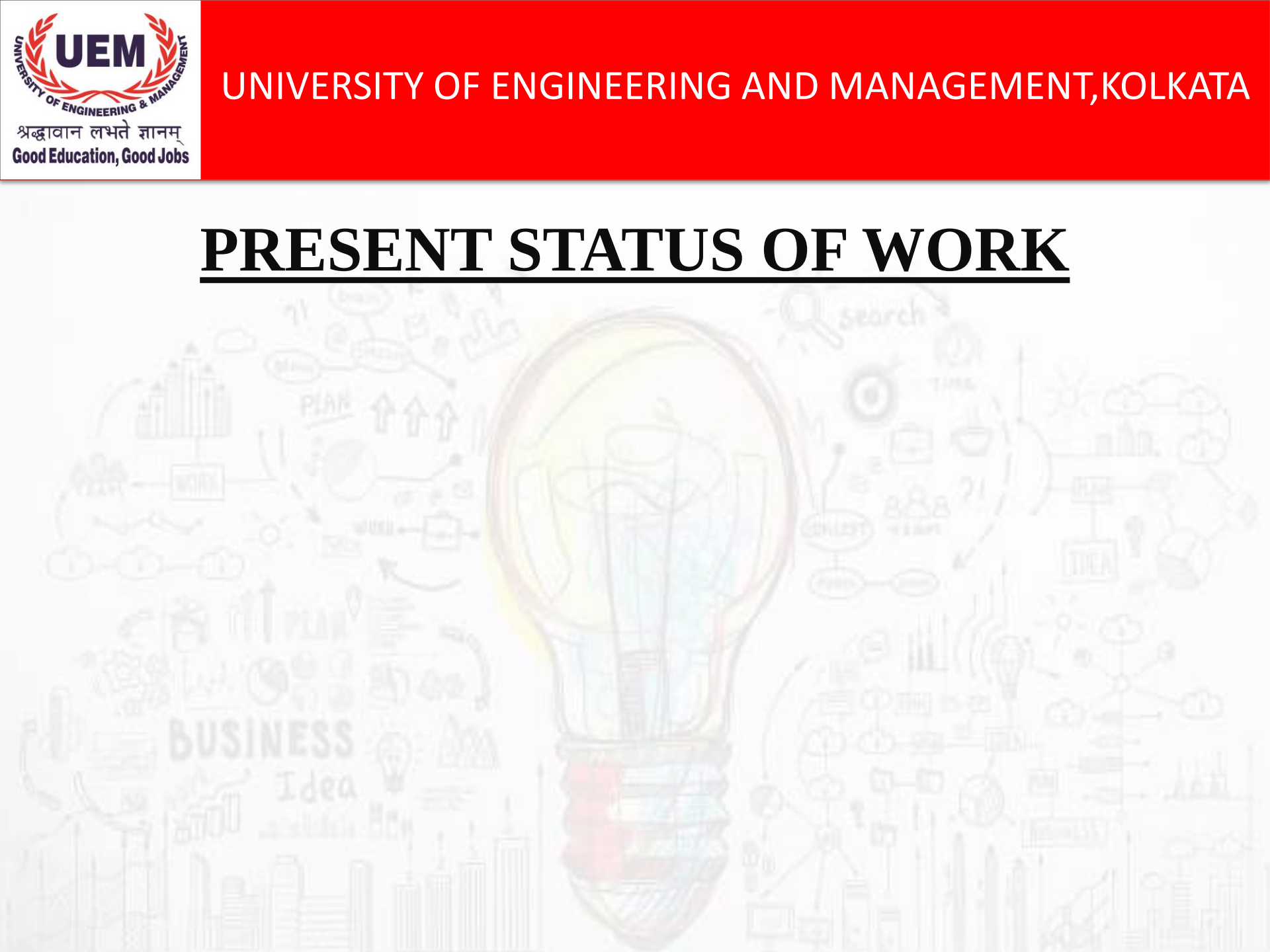


PREVIOUS STATUS OF WORK

In this study, we proposed a security system contains door locking system using passive type of RFID. The system is implemented in three spaces using central database system. The secure space located on same or different part of buildings as illustrate in figure1. The system used hardware as well as software. The hardware components are RFID reader, tags, USB connections and connecting cables etc. In addition we have used actuator (stepper motor for this purpose). The proposed scheme is given in the adjacent diagram



PRESENT STATUS OF WORK



FUTURE SCOPE.

SOLAR PANEL: A solar panel can be used in order to save the power and making the project as innovative as possible.

- **BIOMETRIC SCANNER:** The next-generation biometric-based technology offers a dependable, helpful, and authentic way of verifying/identifying an individual's identity utilizing latest Biometric fingerprint scanner.

CONCLUSION

- ✓ We now have set up powerful protection depending on encryption technique.
- ✓ Regarding protection, the machine is actually fairly guaranteed with regard to eliminating the actual biometric program as well as forerunning the actual procedure at the rear of the actual home windows. Regarding runtime, the actual system's needed period is more preferable compared to current

THANK YOU