The Electronic Passport and Future Government Issued RFID-Based Identification.

ABSTRACT:
A method of program, and system for creating for and validating an electronic identification document are provided. where in the electronic document an electronic signature is receiving from the user and attached to the electronic document. An electronic certificate is added to the document, and the entire a document is encrypted. The electronic document acts as a legally valid form of identification. the document is uploaded from the pervasive computing device to an authorizing machine which decrypts the decrypts the documents. The digital certificate and electronic signature attached to the document are the verified for authenticity.

INTRODUCTION:
The e-passport, as it is sometimes called, represents a bold initiative in the deployment of two new technologies: Radio-Frequency Identification (RFID) and biometrics. System are wireless technology for automatic identification. They bring forth the era of next generation ID cards. several national governments plan to deploy identity cards integrating RFID and biometrics for domestic use. We explore the privacy and security and other issues of the e-passport in this article. cards. RFID and biometric technologies when combined, promise to reduce fraud, ease identity checks, enhance security. International Civil Aviation Organization (ICAO), a body run by the United stated has made it mandatory for the citizen to e-passport.

1.1. RFID:
Radio frequency identification (RFID) technology has been in use for decades. Only recently, lower cost and increased capabilities made RFID technology to be a commercially viable one. There seems to be developments in support of the movement of inventory tracking and supply chain management toward RFID.

1.2. TECHNICAL OVERVIEW:
RFID is an auto ID device like Barcode, Smart cards, Biometric technologies (Retinal scans) and optical character recognition etc. Special feature of this technology is that there is no need of line of sight reception as required in some other technologies. In RFID systems the items are marked with tags. These tags contain transponders that emit messages readable by specialized RFID readers. Most RFID tags store some sort of identification number; for example a customer number or product code. A reader retrieves information about the ID number from a database, and acts upon it accordingly. RFID tags can also contain writable memory, which can store store information for transfer to various RFID readers in different locations.

RFID tags fall into two general categories, active and passive, depending on their source of electrical power. Active RFID tags contain their own power source, usually an on-board battery. Passive tags obtain power from the signal of an external reader. RFID readers also come in active and passive varieties, depending on the type of tag they read. Then based on their frequency range of transmission it is classified as LF, HF, VHF and UHF tags.

8051 PIN FUNCTIONS:
If the 40 pins of the typical 8052, 32 of them are dedicated to I/O lines that have a one-to-one relation with SFRs P0, P1, P2, and P3. The developer may raise and lower these lines by writing 1s or 0s to the corresponding bits in the SFRs. Likewise, the current state of these lines may be read by reading the corresponding bits of the SFRs. All of the ports have internal pull-up resistors except for port 0.

**TRANSFORMER:**

The potential transformer will step down the power supply voltage (0-230V) to (0-6V) level. Then the secondary of the potential transformer will be connected to the precision rectifier, which is constructed with the help of op–amp. The advantages of using precision rectifier are it will give peak voltage output as DC, rest of the circuits will give only RMS output.

**WORKING PRINCIPLE:**

The AC voltage, typically 220V rms, is connected to a transformer, which steps that ac voltage down to the level of the desired DC output. A diode rectifier then provides a full-wave rectified voltage that is initially filtered by a simple capacitor filter to produce a dc voltage. This resulting dc voltage usually has some ripple or ac voltage variation.

A regulator circuit removes the ripples and also remains the same dc value even if the input dc voltage varies, or the load connected to the output dc voltage changes.

**II. DESIGN AND IMPLEMENTATION**

**KEIL C:**

Keil software is the leading vendor for 8/16-bit development tools (ranked at first position in the 2004 embedded market study of the embedded system and EE times magazine).

**FLASH MAGIC:**

Flash magic can control the entry into ISP mode of some microcontroller devices by using the COM port handshaking signals to control the device. Typically the handshaking signals are used to control such pins as Reset, PSEN and VCC. The exact pins used depend on the specific device.

**ORCAD:**

ORCAD really consists of tools. Capture is used for design entry in schematic form. You will probably be already familiar with looking at circuits in this form from working with other tools in your university courses. Layout is a tool for designing the physical layout of components and circuits on a PCB.

**III. IMPLEMENTATION**

There has been a considerable amount of reduction in transaction costs and decrease in stock shortage with the use of Radio Frequency Identification (RFID) technology in automation.

Most of the RFID networks include a wide range of automation technologies. These technologies are RFID readers, RFID writers, RFID barcode scanners, RFID smart sensors and RFID controllers.

**Project consists of transmitter section, receiver section and centralized section. In transmitter section, it transfers person id In receiver section, it receives person id In centralized section, it converts person id to binary format and sends to microcontroller. The microcontroller then decodes the binary format and sends it to serial communication section of alarm section.**
Keeping this in mind we have proposed this system at low cost. The transmitter section where the Car Number details of the driver are taken, they are verified with the database and checked, if the details satisfy, after transferring the data the centralized section, checks whether person id is correct/not. If person id is incorrect then it gives alarm and also it displays on the LCD display.

**HARDWARE TOOLS:**

**Radio Frequency**, any frequency within the electromagnetic spectrum associated with radio wave propagation. When an RF current is supplied to an antenna, an electromagnetic field is created that then is able to propagate through space. Many wireless technologies are based on RF field propagation.

**(A) Receiver Module. (B) Transmitter Module**

**EXISTING SYSTEM:**

In the existing system in tollgate section every thing we have to do manually, so it will take time.

Because of this traffic jam problems also will occurs. This is in line with the developed countries like USA, England, German and Japan, where RFID, GPS and GSM technologies are widely used for traffic management.

But in India we have not implemented any automated system for transport management due to prohibitive cost.

**PROPOSED SYSTEM:**

A reader device at the gate reads this data from the vehicle and compares it with the data in the computer database.

Information retrieval from Server: In this server the vehicle number, owners name, registration number and other personal details this would be retrieved while vehicle crosses the toll gate reader.

Automatic Transaction details updating:

The corresponding amount for each vehicle would be transacted automatically when the vehicle passes away the toll gate.

In Toll gate section we also additional features as theft detection. If any vehicles are stolen we can easily detect it using the RFID provided to each vehicle which is a unique one.

**APPLICATIONS:**

- Security application
- Image processing applications
- Banking application
The vehicle number is read by the reader then parking slot is announced and stepper motor is activated to open the gate. The bill is automatically generated while the vehicle is entering in to the exit gate. Similarly toll is managed by the RFID system placed in the toll areas.

IV. CONCLUSION

There has been a considerable amount of reduction in transaction costs and decrease in stock shortage with the use of Radio Frequency Identification (RFID) technology in automation. Most of the RFID networks include a wide range of automation technologies. These technologies are RFID readers, RFID writers, RFID barcode scanners, RFID smart sensors and RFID controllers. In this study, a solution has been provided for the problems encountered in parking-lot management systems via RFID technology. Even in the future we can modify this system with effective technology and with very good transmitter and receiver.

V. REFERENCES


