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E-Passport System

Shravani Belgi¹, Rutuja Devkute², Rutuja Raundal³, Mayuresh Patil⁴

Department of Computer Science & Engineering, Sandip University, Nashik, India^{1, 2, 3, 4}

ABSTRACT: The Electronic passport is the digital version of the paper passport to provide stronger identity authentication. Passport verification and checking which a very time-consuming process. To be ease identity checks, lessen the amount of human errors, protect against manipulation of travel documents and improve border security issues hence, new passport turned out to be much more intrusive than the traditional one. The proposed system simplifies this process with RFID card where the unique identification number is stored which corresponds to the information of the person. The information includes the name, nationality, address etc. along with attach the copy of the required certificates required according to the application. The information is transferred to computer with the help of RF transceiver. It may also include some other features such as buzzer for audio visual indication and system to lock the door. This proposed system uses Radio Frequency Identification (RFID) is a technology that uses wireless communication for identification purposes. The key characteristic that differentiates one RFID application from another is the purpose of identification.

KEYWORDS: RFID Radio Frequency Identification, E-Chip Electronic Chip

I. INTRODUCTION

Advancements in technology have created the chance of larger assurance of correct travel document possession, however, some issues relating to security and effective- ness stay unaddressed. Electronic passports have notable a good and quick readying all around the world since the International Civil Aviation Organization the globe have adopted standards whereby passports will store biometric identifiers. The em- ployment of life science for identification has the potential to create the lives easier, and therefore the world folks board a safer place. The aim of biometric with RFID Tag suggests that e-passports are to stop the misappropriated entry of a person into a selected country and limit the employment of counterfeit documents by a lot of correct identification of a person. This paper analyses the fingerprint biometric e- passport style. These papers concentrate on the privacy and private security of bearers of e- passports, the particular security profit countries obtained by the introduction of e-passports victimization fingerprint recognition systems. The research worker analyzed its main crypto graphical features; the fingerprint life science presently used with e-passports and regarded the encompassing procedures. Research worker- centered on vulnerabilities since anyone willing to bypass the system would select a constant approach. On the contrary, only wishing on them could create a risk that didn't exist with previous passports and border controls. The paper conjointly pro- vides a security analysis of the e-passport victimization fingerprint biometric with RFID tags that are supposed to produce improved security in protective biometric info of the e-passport bearer. An E-Passport is an ID document that possesses connected biometric data of its bearer. It's embedded in the RFID tag that is accomplished by crypto graphical practicality. The triple-crown implementation of biometric techniques in documents like EPassports aims to the strength of border security by decreasing the chance of the document's holder. The e-passport additionally offers substantial edges to the rightful holder by providing a lot of refined suggests that of confirming that the passport belongs thereto person which it's authentic, while not privacy.

II. LITERATURE SURVEY

The e-passport possesses two aspects of technology which are RFID and biometrics all incorporated so as to securely identify and verify the bearer possessing that travel document. In this section of chapter one the writer will site, acknowledge and quote similar works that have been done on the e-passport in brief and also state how this project is going to be different from all these works.

1) E-passports are already available and in use in several European countries and several researches have been conducted around the world following their deploy- ment in these countries.[5] Kumar et. al discussed the efficient implementation of e-passports scheme using cryptographic security along with multiple biometrics. In this article he states that an e-passport is an identification document which possesses relevant biographic and biometric information of its bearer on paper and also has this information embedded on an RFID chip which is capable of cryptographic function-

ality. However this project seeks to eliminate the design of having a passport booklet with an RFID chip embedded on it but instead just make use of an RFID card with all the information stored on that card.

III. METHODOLOGY

Radio Frequency Identification (RFID) is an automatic identification method whose concept is based on retrieving data from radio waves embedded onto a label-style material using devices called RFID tags or transponders, Readers, and antennas. The RFID technology is used in many different Identification systems in the form of barcodes and embedded chips. The RFID tag is a small microchip designed for wireless data transmission. It contains the same information as a passport's data page—the passport holder's name, nationality, gender, date of birth, place of birth and digitized photo. RFID tags can be one of two types: active or passive. Active tags are those which are run by battery, while passive does not have batteries. So they supply their power by using the power obtained from radio signals emitted by the RFID readers to operate. To read the information on the chip, the RFID reader energizes the chip circuitry by wirelessly emanating power and communicating through its antenna which is usually built into the RFID Reader and the RFID Tag to improve the signal. The designed-in operation vary of the chip electronic equipment is incredibly small; it should be command among ten centimetres of the reader.

IV. EXPERIMENTAL RESULTS

This project is based on java. This project supports all types of web browsers. Active internet connection. The system gives advice or alerts user immediately. The System gives accurate results. Interactive, minimal delays, safe info transmission.



Figure 3: Output

V. CONCLUSION

The project has analyzed the major current and potential uses of RFID in identifying documents. The important feature of this project is security and time wastage involved in validation of passports. Inclusion of RFID technology into machine readable documents will improve their robustness against identity theft.

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