

# A Review on Digitalization in India Using RFID Technology with Internet of thing

<sup>1</sup>Prof.Takale D.G, <sup>2</sup>Miss.Yogita Pardeshi, <sup>3</sup>Miss.Hole Dipali, <sup>4</sup>Mr.Shelar Nilesh,

<sup>1</sup>Professor, <sup>2-4</sup>B.E Student DGOIFOE, Bhigwan

<sup>1-4</sup>Department of Computer Engineering,

<sup>1-4</sup>Dattakala Group of institutions Faculty of Engineering Bhigwan

**Abstract:** Now a day's people are dependent on digital way of doing any work. But there is still one case where we are using papers for doing that work which is related to educational, medical etc. Peoples carry le of documents while going for work such as for issuing driving license. There is one solution on this problem by replacing bunch of documents with just single RFID card. A data security integrated system, based on the server, which uses RFID technology to combine functions of physical access control, computers access control and management. Using RFID Reader for scanning particular person there are also chances of fraud. This can overcome using Fingerprint sensor. Suppose that the security level of such digital signature system can be further increased using RFID tags in addition to smart digital services. This allows preventing an unauthorized use of the smart card carrying the secret key. Intellectual RFID tags can help us when a physical access control system is not installed or when it is impossible or inexpedient to connect such system to the digital signature system and the computers access control and management system. This tag is an additional authentication factor required to gain permission to use the cryptographic smart card for signing a document. The presence detection/access control function is comprised of a wired/wireless sensor network of readers that is installed to detect person information with tags.

**Keyword:** *Digital signature, Access control, RFID, Smart cards*

## 1. INTRODUCTION

In daily life the processes or services which are especially for the people, to get these services properly and within time is important. If people go to buy a SIM card to mobile shop, then they have to cross verify the fingerprint of that particular user or customer with the Adhar card number. The process becomes hectic and so lengthy till SIM card activation. There are so many such services which take too much time, manpower and system resource. Such services are related to RTO, College admission, Bank, Passport and so many. These all services are only for the peoples but these are so time consuming and there are also the chances of fraud in getting services. So it is important to make all services digital. Proposed system uses server as cloud for storing the necessary documents. The particular documents they use where they become necessary. This can overcome using Fingerprint sensor. Suppose I opening an account in bank then I need to just carry a RFID tag .The bankers will scan that card and also check fingerprint .All the necessary documents will get display there without carrying document.

### 1.1 Problem Definition

For Public Sector and Government Agencies, with tens or hundreds of thousands of documents, a document management system is becoming a mandate to organize, index and control their documents in a hassle free manner. Public Sector and Government Agencies deal with Documents which range from Public View documents, Tenders, to the most Confidential and Secret Documents which are intended only for view of certain designated personnel. Storing all these documents as physical records not just consumes a lot of space but also is a tedious an air to let these documents and manage them safely with restricted access. So we are providing one digital solution to this problem with RFID card and fingerprint scanner. User will get authenticated by unique id of RFID associated with each document.

### 1.2 Motivation

For Public Sector and Government Agencies, with tens or hundreds of thousands of documents, a document management system is becoming a mandate to organize, index and control their documents in a hassle free manner. Public Sector and Government Agencies deal with Documents which range from Public View documents, Tenders, to the most Confidential and Secret Documents which are intended only for view of certain designated personnel. Storing all these documents as physical records not just consumes a lot of space but also is a tedious an air to let these documents and manage them safely with restricted access. So we are providing one digital solution to this problem with RFID card and fingerprint scanner. User will get authenticated by unique id of RFID associated with each document

### 1.3 Objective

To provide smarter way for our important document storage and handling. By using RFID and Fingerprint we will provide security to system. Main objective is to reduce problems regarding document handling such as document misplacement, waiting in queue for verification.

## 2. RELATED WORK

Keystroke Dynamics, The essentials of keystroke dynamics is not what you type, but how you type. In this paper, it mainly presents our proposed authentication system supporting with keystroke dynamics as a biometric for authentication. We use inter-key delays of the password and the account for user identification in the system design. Design of a secure digital recording protection system with network connected devices. We present a new recording protection system for network connected devices that belong to a user's personal network. An Intranet-Based Document Management and Monitoring System Framework: A Case for the National University Quality Management Office it provides a framework where the development of an Intranet based Documents Management System can be based. Combining RFID-Based Physical Access Control Systems with Digital Signature Systems to Increase Their Security.[4] In this paper it uses RFID technology to combine functions of physical access control, computers access control and management, and digital signature systems. This combination allows to drastically increase systems security.

Software defined radio based implementation of RFID tag in next generation mobile we present development and implementation of the Software Defined Radio (SDR) active backscattering tag compatible with the EPC global UHF Class 1 Generation 2 (Gen2) RFID standard. Decentralized Mobile SNS Architecture and Its Personal Information Management Mechanism. Mobile SNS is one of the most popular topics of mobile Internet. In order to fulfill the user demand for self-maintained independent social network and ensure the privacy of their personal information and resources, the paper proposes system architecture of decentralized mobile SNS.

TITLE	AUTHOR	YEAR	REVIEW
IDStack - the Common Protocol for Document Verification Built on Digital Signatures	Chanaka Lakmal and Sachithra Dan galla	2017	The need for a better solution for document verification in the Sri Lankan context is clear and expanding. With the advancement in the use of digital documents, document verification has a very good potential to grow in many directions. ID Stack has proposed and successfully implemented a solution that uses digital signatures, text extraction and document correlation to address the aforementioned issue.
Digital Signature On File Using Biometric Fingerprint With Fingerprint Sensor On Smartphone	Erika Rahmawati and Mariska Listy asari	2017	Fingerprint on smart phone can perform encryption and decryption process by connected to the server and call the PHP program functions. In this system, fingerprint is as a medium to perform the process of encryption and decryption and create a signature on the document.
How to Sign Multiple Versions of Digital Documents	Amril Syalim b and Kouichi Sakurai	2017	In this paper, we have proposed a more efficient method to sign multiple version of digital documents. We have proposed a signature scheme based on RSA and showed that the scheme is secure in the random oracle model. The advantages of our method are:
Combining RFID-Based Physical Access Control Systems with Digital Signature Systems to Increase Their	Andrey Larchikov, Sergey Panasenkov	2016	Using RFID technology in digital signature schemes allows to increase their security. Even low-end RFID tags can add one more security level when combined with physical access control systems. Intellectual

Security			RFID tags with possibility of strong mutual authentication with smart cards allow to provide unauthorized access to digital signature secret keys: they can be used after successful mutual authentication only.
Design and Implementation of a RFID-based Authentication System by Using Keystroke Dynamics	ehun-wei Tseng and Feng-jung Liu	2016	The essentials of keystroke dynamics is not what you type, but how you type. It has already been shown that keystroke rhythm is a good sign of identity. In this paper, it mainly presents our proposed authentication system supporting with keystroke dynamics as a biometric for authentication. We uses inter-key delays of the password and the account for user identification in the system design.

Table 2.1: Literature Survey

### 3. PROPOSED SYSTEM

The basic flow of the projects depends upon the scenarios present and items which work accordingly to build upon greater tasks. The section gets divided to derive out all the information from the work flows. When building upon such data sets a proper generation of categories must be done to solve problems. The first scenario comes of the customer as he is using the application made by the developer and then uses its full potential for his benefit.

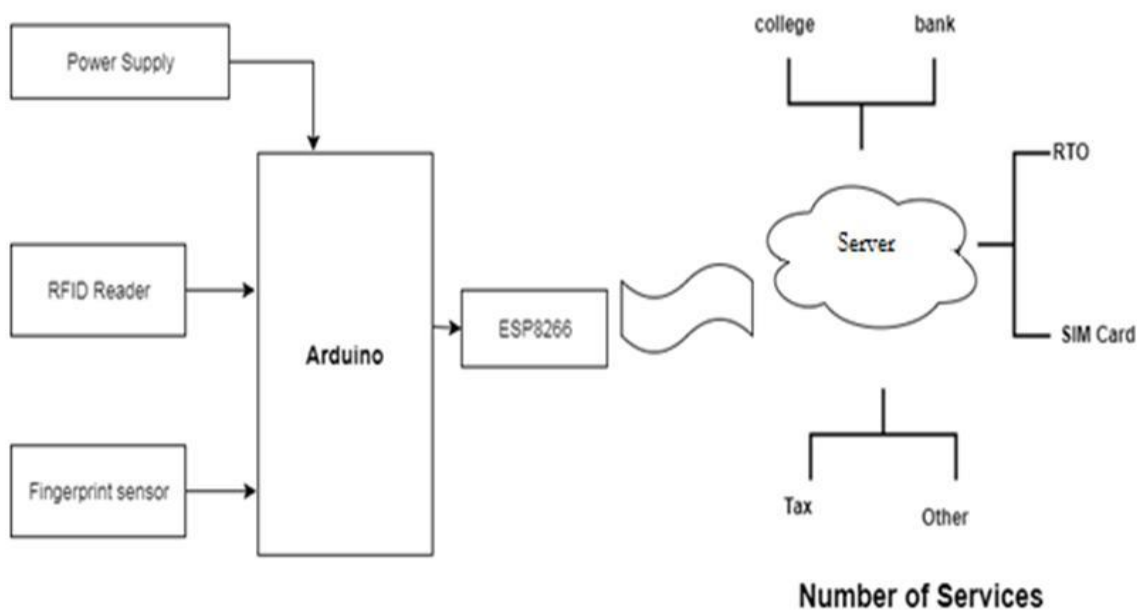


Fig: System Architecture

#### 3.1 Modules

- Admin Login
- User Login
- User Registration
- Document Upload
- Send OTP

### 3.2 Application

- RTO Offices.
- Banks.
- Educational institutes.
- Police sector
- Tahasil Offices.
- Hospitals
- Mobile Soppiest

### 3.3 Advantages of Proposed System

Reduced lines at the checkout counter due to fast charging and discharging of item. Less labor intensive means get efficiency in technical activities compared to manual activities and increase probability to avoid duplication work. Document can be protected from theft.

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## 5. CONCLUSION

We can create global cloud using raspberry pi , so that different services can be accessible globally. Intellectual RFID tags with possibility of strong mutual authentication with smart cards allow to provide unauthorized access to digital signature secret keys: they can be used after successful mutual authentication only. We proposed several ways to combine RFID-based physical access control systems with digital signature systems to increase their security. Including improved digital signature calculation procedure that allows preventing unauthorized calculation of a digital signature for a fraudulent document

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