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DIGITALIZATION IN INDIA USING RFID TECHNOLOGY WITH IoT

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Abstract: ***Now a days 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 educa-tional, 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 con-trol, computers access control and management.Using RFID Reader for scanning particular person there are also chances of fraud.This can overcome using Finger-print sensor.Suppose that the security level of such dig-ital 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 comput-ers access control and management system. This tag is an additional authentication factor required to gain permission to use the cryptographic smart card for sign-ing 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.***

Keywords: *RFID, Scanner, IOT, cloud.*

I INTRODUCTION

Now a days the processes or services which are espe-cially for the people, to get these services properly and within time are important. If people go to buy a SIM card to mobile shop, then they have to cross verify the ngerprint of that particular user or cus-tomer with the Adhar card number. The process becomes hectic and so lengthy till SIM card activa-tion. 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 ser-vices 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 ser-vices 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. Sup-pose I opening an account in bank then I need to just carry a RFID tag .The bankers will scan that card and also check ngerprint .All the necessary documents will get display there without carrying document

II 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 Congenital 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 a air to le these documents and manage them safely with restricted access. So we are providing one digital

Figure 1. RFID card

III PROBLEM STATEMENT

Implementation of Digitalization In India Using RFID Technology With IOT. The scope of our project is to de-sign and implement central repository for all documents by using software and hardware. The ultimate goal is that the ideas and planning demonstrated through this model system can then be easily upgraded to an actual document management in government sector. As the system is to be implemented for government and such long or organizations, there are a number of performance speciation's that have to be met to ensure the system operates correctly and e ciently. Most importantly, The Development of our system interface must send and receive the appropriate information.

IV GOALS AND 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.

IV.ARCHITECTURE

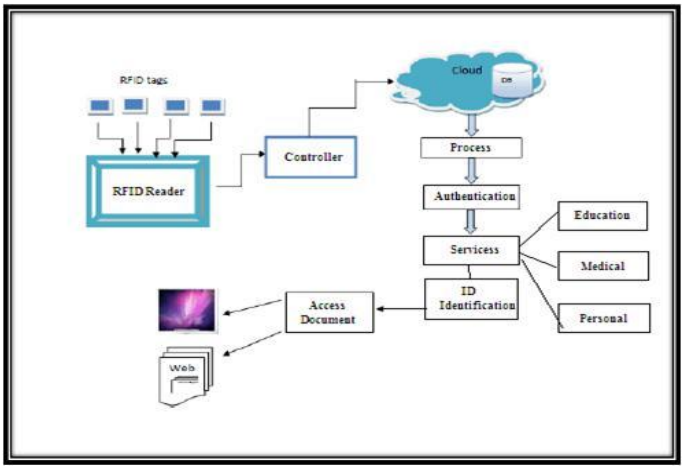

Figure 2 System architecture

AES Algorithm for File Encryption:

For encryption of data:-

START

Step 1- U=Upload(file), he input is consider as Text, is being

converted to 128 bit plain text.

Step 2- R= Read(input file),

Step 3- K=Key generation(file)

e.g= key=123456;

Step 4- E=Encrypt(file, key), encode the upcoming file
Step 5- C=Convert(file),

If(encrypt), then file convert plain to cipher text

Split(file1, file2);

Stored(file)

Else, file not encrypted

Step 6- D=Decrypt(file), decode the file

if (decode), then file convert cipher text to plain

Combine (file1, file2);

Else, file not decoded

Step 7- Download file

END

V PROPOSED MODULE:

Admin Module:

Here admin module is the government person can upload the customer documents to access the anywhere from the location. Admin role is most important to create the unique identification to the each customer. Admin also check all users' activity from the local server, for further process.

User Module:

Here user module is the customer to download the personal documents from the government server using the only single card. User tag the card to the controller for authentication purpose, if any wrong inputs come the server send the notification to the user unauthorized user. User now accesses the personal documents only single card.

Authentication Module:

Authentication module is the most important factor in this application. The server creates the each authentication using the unique card id to the all customer/user. Once user tag the card to the controller then controller analysis the id coming to the controller to the server. If valid user accesses that card then authentication is success.

For more security: OTP generation

OTP is one time password mechanism used for authentication purpose. When we enter or scan RFID card to reader then OTP generated to users mobile number which is registered by user, it gives some specific message including some numerical or alphabets. This message only valid upto

some specific amount of time so that we can gain more security by users side.

VI RESULTS

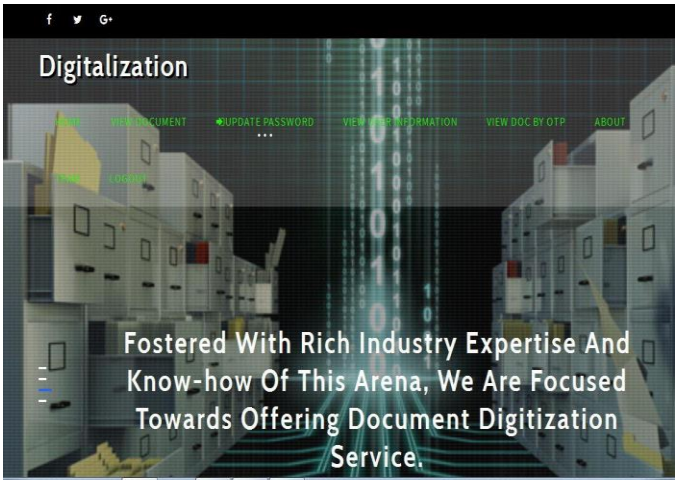

Figure 3. Admin Module

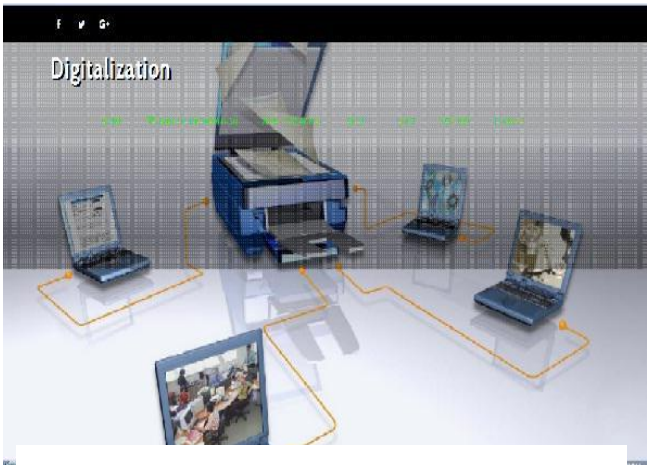

Figure 4: User Module

VII. CONCLUSION

The proposed authentication system supporting with keystroke dynamics as a biometric for authentication. FID Tag is like a smart card in which many documents are stored which related to RTO, Bank, College so it is easy task to people to access this document anywhere anytime.By using keystroke dynamics could e actively improve system security. Intellectual RFID tags with possibility of strong mutual authentication with smart cards allow to provide unauthorized access to digital signature secret keys.

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