International Journal of Scientific Research in Computer Science, Engineering and Information Technology
© 2018 IJSRCSEIT | Volume 3 | Issue 5 | ISSN : 2456-3307

Online Verification of Caste Certificate

Darshan Kumar G B[1], H.P. Mohan Kumar[2]
[1]Master of Computer Application PES College of Engineering, Mandya, India
[2]Master of Computer Application PES College of Engineering, Mandya, India

ABSTRACT

Generally for the government job, competitive exams and for the various benefits from government the candidate should produce their caste certificate to the authorities. It's necessary to check their correctness of the given caste certificate. So the on spot verification of the caste certificate is became one of the constraints for authorities. Its not only for the verification even for applying and renewals also. A person needs caste certificate means that person needs to apply manually because of these that person needs wait for some many days only. Even for renewals also that person needs to submit his document again so these kind of problems has to be solved by doing these process through online.

Keywords: Triple DataEncryptionStandard (DES), Quick Response (QR), Scheduled Castes (SC), Scheduled Tribes (ST), Raspberry pi.

I. INTRODUCTION

Basically the candidate should produce their physical copy of their caste certificate to their respective authorities so that it takes long procedure to undergo because of these reason the time consumed a lot so that the candidates who requires the benefits from the government should wait until their caste certificate are verified. The authorities should verify their caste certificate through their caste certificate id number, photo, and name of the holder. If the limited number of candidates are presents means it's easy to verify the certificate but huge number of candidate means more than five hundred candidates are present means it's very difficult to verify their caste certificate on spot .

it's just like [1] to discover the automatic retrieval of the searched information for these text mining is done, but here information which is provided in the caste certificate that information will be gathered and compared with the given information by candidate through online itself. And also the [2] the forgery and the tampering also should be detected by doing the genuine procedure, here the forgery and tampering will be caught and punished also. By doing this verification the [3] classification of various caste categories will be identified easily and same category will be group together easily and fastly.

II. LITERATURE SURVEY

There are several related works can be identified related to the verification process like in [4] vehicle number plate will be recognized by using raspberry pi, meanwhile here the caste certificate is checked its correctness by comparing the various documents using manual process in the previous system. In the [5] the analysis of the students results is done by using web based system, here the documents which is submitted by the candidate will verified through online itself even for the renewal also the document will be verified through online only. In the [6] the license plate is identified by segmenting the characters in the license plate, but here these work is recognized for certificate for renewal by verifying

the previously submitted documents. In the [7] the fault is detected by performing various kind of algorithm techniques are used, but here in the previous system there is no such algorithm is used because everything is done by manually, but in the proposed system triple DES algorithm is used for the online works. In the [8] the extraction of entities are identified by using (name, products, locations) by submitted document, here also when the candidate apply for caste certificate or renewal of caste certificate ,the certificate is approved by identifying the genuineness of the submitted documents by candidate. In the [9] e-document verification is done using cloud these leads to reduce human efforts, here also by doing the verification through online its leads to reduce the human efforts and also there will be a softcopy of the certificate will be generated so that if the certificate is misplaced or lost the candidate easily can retrieve their caste certificate through online itself.

III. METHODOLOGY

As said in the introduction there are more disadvantages are exsists and these disadvantages can be overcome by applying various methods so that less human efforts is required to complete the task , only less time is required for on spot verification of more than five hundred candidates can be easily achieved over here. In the [10] the QR code techniques is used for the smart shopping , here also the QR code techniques is used for the verification process and also for the renewal process the QR code techniques is used. In the [11] there will be a protocol which keeps track of the successful rate of route, here by using the triple DES algorithm it will be keep track of which are the correct and tampered caste certificates. In the [12] it's mainly used to search and listing of document from various regions, here also once the certificate's unique number is entered than candidate's documents will be searched and listed for verification process by the verifier. In the [13] finger print is identified by using the fingerprint model, but in these work QR code is used for identifying the genuineness of the caste certificate, same QR code be remains for the renewal of certificates. In the [14] document to extract the most salient sentences for the sentences similarity matrix , here also extraction of few reliable information is extracted from document for the verification process these task is done through online only. In the [15] verification of signature is done through online by performing some mechanism meanwhile here the verification of caste certificate is done by applying the triple DES algorithm not only for the verification its applying of new certificate and also for the renewal of old certificate.

1.1 System Overview

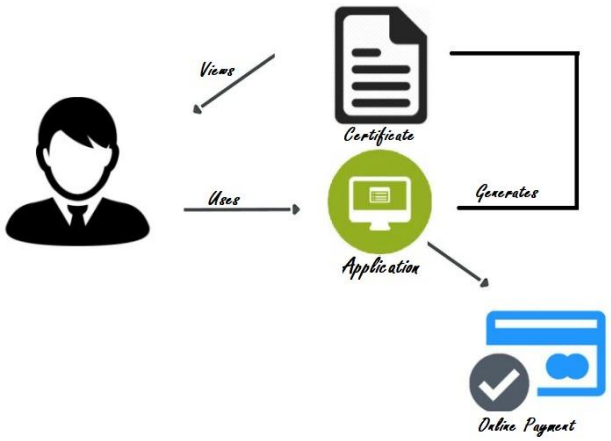

Figure 1. System overview

As shown in the figure 1 The user will enters into the application and fill the required details of the user and uploads the document to application and the payment will be done through online itself in payment gateway then the caste certificate will be generated then user will views and download the newly generated certificate. For the renewal of caste certificate same process will be followed by the user.

1.2 Data Encryption Standard

This section is dedicated to the analysis of the algorithm that is used in the online verifications of the document. The algorithm used in these work is triple DES where the Fractioning of the text into 64-bits (8-octet) block. Initial permutation of block. Break down the blocks into two parts: left & right.

Named as L and R. Permutation and substitution steps repeated 16 times called rounds. In the figure 2 where the rounds of the algorithm is shown in pictorially. Re-joining is done until the verify process ends.

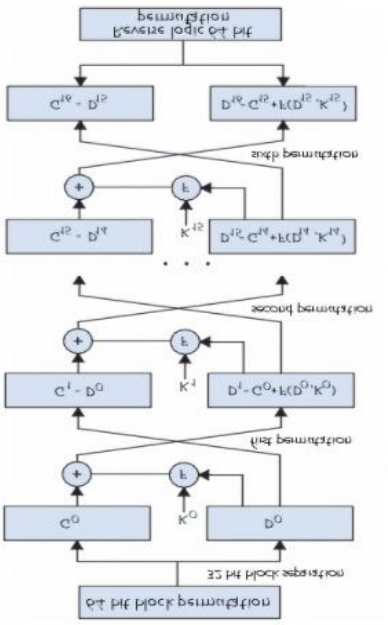

Figure 2. Data Encryption Standard

3.3 Quick Response

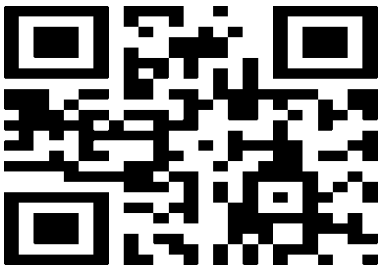

Figure 3. Quick Response

QR code is the trademark for a type of security. In [10] a QR code technique is used for smart shopping. But in this work QR code plays most supporting role for security purpose and to find correctness of the caste certificate it will be very helpful. QR code contains necessary information about the caste certificate holder. QR code consist four standard form (numeric, alphanumeric, byte/binary) to efficiently store data.

In these work a unique QR code generated for newly created caste certificate. Basically the data will be in encrypted form. When the certificate is undergoes for the verification purpose encrypted data will be converted to decrypt data and verifies the certificate correctness. So the generated QR code can be scanned through QR code scanner.

IV. RESULT AND DISCUSSION

To prove the concept and evaluate it. The application is written in visual studio with additional frameworks. To store the data MySQL database is used and for the frontend designs css, sqlserver tags are used.

To evaluate triple DES algorithm is used where exactly 16 rounds are taken to complete the overall work. Even the concept like encryption and decryption also done through these algorithm itself. Applying, renewal, on spot verification caste certificate is a challenge task by doing manually.

Table 1. Population estimation of various communities

Category	Population Estimation
Backward class	32%
SC	16.2%
ST	8.2%
Muslims	13.4%
Rest	30.2%

In Table 1 the population estimation is shown for various communities these much estimation is got but in reality most of the peoples tampered there caste certificate to get the benefits from the government and these tampering can be notices through these work by verifying the caste certificate.

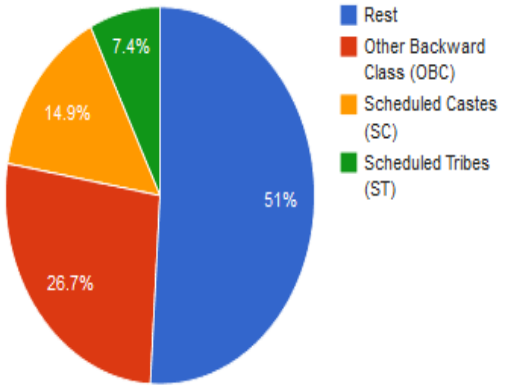

Figure 4. Reservation Split

In Figure 4 , the reservation split is shown for various communities and its done by verifying their caste certificate ,In other words it can be said that it's a outcome of the work.

Even for the security purpose encryption and decryption has embedded so that the verification can done accurately anytime and anywhere by the verifier. By using triple DES algorithm these all the three task can be done easily and very efficiently overall for 86%.

V. CONCLUSION

The overall work ensures that to reduce the human efforts and to identify the tampering, the work indicates that the deserve candidates should get the benefits from the government. Generally verifier should follow the manual procedure to verify the certificate. Instead of these the application will be take care of the verification of the certificate. The payment will done through online itself by using payment gateway module. On spot verification will be done very fastly and efficiently and mainly the tampering will be caught and the deserved person will get the benefits from the government. Generally its indirectly these project will help to identify the tampering works through online itself when the certificate is upload for verification.

VI. REFERENCES

[1]. Ms. Khureshi Rukhsar Afreen Intiz Ahmed, Mrs. Vishwakarma Pinki ,"Automatic Document Clustering and Knowledge Discovery", IJETR International Journal of Engineering and TechnicalResearch, Volume 2, Issue 12, December 2014, ISSN: 2321-0869.

[2]. Shehnaz , Mandeep Kaur ,"Forgery Detection Based on Blur Inconsistencies: A Review", IJETR International Journal of Engineering and Technical Research, Volume 2, Issue 12, December 2014, ISSN: 2321-0869.

[3]. Shivangi Gautam, Subham Singh, Simran Singh, Pavan Sharma, "Classification of Age and Gender Using Deep Learning" , IRJET International Research Journal of Engineering and Technology, Volume 5, Issue 4, April 2018, p-ISSN: 2395-0072, e-ISSN: 2395-0056

[4]. Prof. Kumthekar A.V. ,Ms. Sayali Owhal, Ms. Snehal Supekar, Ms. Bhagyashri Tupe, "Recognition Of Vehicle number plate using Raspberry pi", IRJET International Research Journal of Engineering And Technology Volume 5,Issue 4, April 2018 , e-ISSN: 2395-0056, p-ISSN: 2395-0072.

[5]. Ashwin Mehta, Jugal Patel, Aditya Mewada, "Student result analysis system", IRJET International Research Journal of Engineering and Technology, Volume 5, Issue 4, April 2018.

[6]. R. Rahuman Raja, R. Kishore, N. Venkatesan, "An Approach for Detection of Indian Number PlateSegmentation", IJREAT International Journal of Research in Engineering & Advanced Technology ,Volume 2, Issue 2, Apr-May 2014, ISSN: 2320-8791

[7]. M.P. Gomathi, M. Tamilselvi, N. Jayapal, "Fault Detection Technique for S-Box in AES Algorithm", IJREAT International Journal of Research in Engineering & Advanced Technology, Volume 2, Issue 2, Apr-May 2014, ISSN: 2320-8791.

[8]. P.Pandiyan, Prof.G.IIanchezhiapandian, "Entity Recognition by Extracting Properties from web Document", IJREAT International Journal of Research in Engineering & Advanced Technology , Volume 2, Issue 2, Apr-May 2014, ISSN: 2320-8791.

[9]. Yashwardhan Dahiwalkar, AkshayWani, Chandrashekhar Swami, "RFID based e-document Verification using cloud", IJETR International Journal of Engineering and Technical Research, Volume 3, Issue 1, January 2015, ISSN: 2321-0869.

[10]. Mr. Jagdish Pimple, Ms. Anjali Tabhane , Ms. Chetna Kalambe , Mr. Dipak Zanzad, Ms. Pradnya kotangale, "QR code techniques for smart shopping: A Review", IRJET International Research Journal of Engineering And Technology Volume 5,Issue 4, April 2018 , e-ISSN: 2395-0056, p-ISSN: 2395-0072.

[11]. Abhishek Gowda T V, Darshan Gowda V, Parinth K V, Rakesh P, Dr. Shabana Sultana,"Trust Based Routing Protocol for Ad Hoc and Sensor Network",IRJET International Research Journal of Engineering AndTechnology Volume 5, Issue 4, April 2018 , e-ISSN: 2395-0056, p-ISSN: 2395-0072.

[12]. Muthamil Selvi N, Muthubhavani K, Nandhinidevi S, Dhivya S, "Highlighting Document Streams using Multi-Regional Input Output", IRJET International Research Journal of Engineering And Technology Volume 5, Issue 4, April 2018 , e-ISSN: 2395-0056, p-ISSN: 2395-0072.

[13]. Suman Sankhla, Sunil Sharma, Naveen Jain, "Fingerprint recognition using fingerprint model" , IJETR International Journal of Engineering andTechnical Research, Volume 1,Issue 4, June 2013, ISSN: 2321-0869.

[14]. K.Poojitha, M. Revathi, Mr.J.Santhosh Kumar, "Document Summerization Retrieval System Based on Web User Needs", IJREAT International Journal of Research in Engineering & Advanced Technology , Volume 2, Issue 2, Apr-May 2014, ISSN: 2320-8791.

[15]. Manas Singhal, Maitreyee Dutta, "Online Signature Verification with Periodic Template Updating Mechanism",IJETR International Journal of Engineering and Technics

Author Profile

Darshan Kumar G B, received her Bachelor's degree in Computer Applications from Mysore University, India and he is currently pursuing MCA in VTU,

Mohan Kumar H P, obtained MCA, MSc Tech and PhD from University of Mysore, India in 1998, 2009 and 2015 respectively. He is working as a professor in department of MCA, PES College of Engineering, Mandya, Karnataka, India. His areas of intreset are biometric, video analysis and networking and Data Mining.