# EXAMINATION REMUNERATION EFFECTIVELY OPTIMIZED

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**ABSTRACT**: "Any growth requires a temporary loss of security". Several protocols and algorithms of different firms has brought about the emergence of various vendors offering high security protocols matched with high performance for simple to most complex applications. But still security towards a data becomes a challenging problem. The objective of the project is to provide a secure data transfer in a confidential manner. The main objective is to reduce the travel expenses ,paper cost and payment university representative, question paper leakage and to reduce the expenditure time. Data's are encrypted and stored in respective areas. It protects sensitive data but also assures data availability at all times. We propose a effective storage of data, so that we ensure that the application that are being used by the user can access only to a particular data limit.

Keywords: Security, data transfer, encryption ..

# **I.INTRODUCTION**

In a time of population growth the consequence are devasting. Positive growth rate might be taken as an evidence that the population is optimum. As the population increases the requirements also increase. It also offers an abstraction of infinite storage space. The more users depend on trees and the byproducts provided by them. So, paper play a vital role in the areas such as furniture making business field ,as well as in educational areas .The main byproducts are furniture and paper. In which the paper production can be minimized to an extent by the modern technologies namely QR code. Which is used to store data and their data backups in an effective manner. We are using our application in the part of examination and even some important menial matters are been secured.

Security is the most pivotal aspects among those interdicting the wide-spread adoption of other's data. The characteristic features within the application is striking for user adoption. Since everyone can access the storage there are more possibilities of hackers retrieving the data in highly sophisticated manners.

A system that can fulfill access control and assured deletion of externalized data on the particular area in a pulverized manner. yet, establishing such a structure is a challenging assignment.

To overcome these issues we present a security based system for data security. Our objective warranties high troth, availability, and expandability in a huge storage structure. The QR code algorithm generation uses division schemes to secure the data in well-defined manner. The user's data confidentiality and integrity are well conserved, even in the existence of a attacks that compromises the data that have been stored.

#### **II.EXISTING SYSTEM**

In existing system, there are mechanisms for the secure and confidential storage of data's in the Application. All the data's are stored in a manner that is not hacked by any other A primary site is systems or users. selected in each of the clusters in order to transfer the data's across client side and side server or vice versa. The of centralization services allows а reasonable management complex of distributed applications, assuring security, availability, and consistency. In order of merit to minimize the usage of paper we are using the QR code to generate question paper in a efficient way. This problem also used to minimize the usage of trees and helpful in preserving environment. However, the scheme focuses mainly on the security in a centralized way.



## **III. PROPOSED SYSTEM**

In proposed system, we collectively approach the predicament of reliability and performance in the mobile application as well as processors. Security issues may arise in system due to key technologies implementation such as virtual machine. The data contacting an application should be guarded. Uncertified data access and processing by other users should be averted.

The main goal of our project is to protect the user's facts from other unauthorized users via mobile applications or processors. Here the unique ID play a vital role. There are two servers in our proposed system namely university server and institution server. The university server maintains a unique key to encode the exam question paper to QR code image. The university server shares its unique key only to the authorized institutions which is used by the institution server to decode the question paper from the QR image, before the QR code is transmitted. In the existing system, QR code holds some information in it. But in our proposed system a global time limit is specified by the university server which enables us to send a specific information to a particular location using QR image. Once the time limit expires the data cannot be transmitted anymore.

## University server:

The university server converts the question paper into QR code image using QR code generator software and keeps it till the examination morning. Once the request for the unique ID has been received from institution server by the university server ,the university server provides the ID only to the authorized institution server. On the date of examination the university server receives a request send by institution server for the QR code and the key using the unique ID. Once the ID has been verified by the server it serves the request of the institution server by sending the QR code image and a key.

## Institution server:

The institution server request for ID to the university server . After the verification of the institution the university server provides the unique ID. On the date of examination the institution request for the QR code image and the key. Once the QR code which contains the question paper has been received by the institution server it distribute the QR code with the key to the examination hall . In the examination hall the QR code can be viewed only between the global time specified by the university server and not before or after the global time. The QR code is decrypted to question paper using the QR code scanner with the help of the key and viewed to candidates through projectors in the examination hall .



# **Encryption Module (NTRU Method):**

The process (and high-level algorithm) for generating a QR Code symbol is as follows:

- 1. Choose the text (Unicode string) or binary data (byte string) to encode.
- 2. Choose one of the 4 error correction levels (ECL). A higher ECC level will yield a barcode that tolerates more damaged parts while preserving the payload data, but will tend to increase the version number (i.e. more modules in width and height).
- 3. Encode the text into a sequence of zero or more segments. A segment in byte mode can encode any data, but using alphanumeric or numeric mode is more compact if the text falls into these subsets.
- 4. Based on the segments to be encoded and the ECL, choose a suitable QR Code version to

contain the data, preferably the smallest one.

- 5. Concatenate the segments (which have headers and payload) and add a terminator. The result is a sequence of bits.
- 6. Add padding bits and bytes to fill the remaining data space (based on the version and ECL).
- 7. Reinterpret the bitstream as a sequence of bytes, then divide it into blocks. Compute and add error correction bytes to each block. Interleave bytes from each block to form the final sequence of 8-bit codewords to be drawn.
- 8. Initialize a blank square grid based on the version number.
- 9. Draw the function patterns (finders, alignment, timing, version info, etc.) onto the appropriate modules. This is formatting overhead to support the QR Code standard, and doesn't encode any user data.
- 10. Draw the sequence of (data + error correction) codewords onto the QR Code symbol, starting from the bottom right. Two columns at a time are used, and the scanning process zigzags going upward and downward. Any module that was drawn for a function pattern is skipped over in this step.
- 11. Either by manual or automatic method choose a mask pattern to apply to the data modules. If masking automatically, then all 8 possibilities are tested and the one with the lowest penalty score is accepted. Note that the format information is redrawn to reflect the mask that has been chosen.
- 12. We are now finished the algorithmic parts of QR Code generation. The remaining work is to render the newly generated barcode symbol as a picture on screen, or save it as an image on the disk.

# V. CONCLUSION

The proposed system can be used to develop a complete digital examination system . In our country , current examination causes high transportation cost. Besides the bribes given for leakage of papers is an open secret. The proposed examination system solve these problems efficiently . This system can also used to transferring data for far extent such as military details , government confidentials etc.

Moreover , in future, additional features can be added in the system which will make the transportation system smarter and secured. cryptography technique can be used for data transmission for further security purpose. As an update POCOMO device is used as projector to display question paper in exam center.

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