



# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: [www.ijirccce.com](http://www.ijirccce.com)

Vol. 5, Issue 3, March 2017

## Computerized Examination for Visually Impaired Students

J Deepika<sup>1</sup>, D Jayashree<sup>2</sup>, D.Yamuna Thangam<sup>3</sup>

<sup>1,2</sup> UG Scholar, Department of Computer Science and Engineering, Kumaraguru College of Technology, Coimbatore, Tamilnadu, India.

<sup>3</sup>Assistant Professor, Department of Computer Science and Engineering, Kumaraguru College of Technology, Coimbatore, Tamilnadu, India

**ABSTRACT:** Visual impairments change the way children obtain information about the world around them and limit opportunities to learn through observation of visual elements in the school curriculum and elsewhere. This means that, in addition to regular classroom studies, children who are visually impaired need to learn specialized skills from teachers and others who are properly trained to teach such skills, such as certified teachers of visually impaired children. To overcome the limitations and to learn independently, the proposed system is exclusively developed for visually impaired students to attend the examination and learn from it. The questions will display on the screen and system also reads those questions. The visually impaired students select the correct option using system keyboard.

Also all visually impaired students, regardless of their personal circumstances, have a right of access to and participation in the education system, according to their potential and ability. In rapidly growing population and increasing number of people with blindness along with other disabilities, need for use of technology in the field of education has become imminent. The application will help in creating an environment that provides equal opportunities for all the students in taking up competitive and adaptive examinations. Rather than traditional methods, the proposed system encourages visually impaired students to have greater participation in their own learning. In the future visually impaired peoples also can do exam like a normal human.

### I.INTRODUCTION

In areas of education, the proposed system offers a medium that has the potential to be more responsive to students[2].In the future ,visually impaired students also can do online exam like a normal human. Random questions will be displayed to each person who takes test. Tests can be taken anytime.

The answer will be received from the user through keyboard. The results will be delivered through voice.[3]The marks are automatically collected, analysed, and distributed for purposes like evaluation of teaching and learning process. In this world visually impaired peoples can get the knowledge using various interfaces.

### II.MODULE DESCRIPTION

#### A. REGISTER

The first module is registration module. In this module, the visually impaired person or the blind person has to do registration before taking exam. The details required are to be filled by a third person or a coordinator appointed. After all the details are filled properly ,a registration id will be provided to the examinee. The examinee can use this registration id to login and to take exam.

#### B.SPEECH SYNTHESIS

It is used to translate written information into aural information where it is more convenient.



# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: [www.ijirccce.com](http://www.ijirccce.com)

Vol. 5, Issue 3, March 2017

## C.AUTO GRADING

The system compares the student answers with the correct answers, which were entered by the instructors.

## D.TEXTUAL INPUT

Choosing the answer for objective type question by visually impaired students is done via keyboard i.e. using system keyboard.

## E.EXAM ADMINISTRATION

Admin can feed different types of questions on variety of subjects into the centralized database and also with number of options for each question. These questions will be fetched one by one in random order. Only admin has the rights to store and modify the question bank to the centralised database. These rights can be given to admin by providing secure login.

## F.EXAM ARCHIVER

Once the student completes his/her test, that corresponding exam will be disabled and the mark obtained will be added to separate mark sheet for overall report generation.

## G. REPORT GENERATION

All the result will be stored in the database with individual student details. Admin can view these results at any time and he can produce report as pdf file or excel file to download the report with complete result of students.

## III.ISSUES IN THE EXISTING SYSTEM

Children who are blind or visually impaired need to learn specialized skills (frequently referred to as the Expanded Core Curriculum) from teachers and others who are properly trained to teach such skills, such as certified teachers of visually impaired children and orientation and mobility specialists.

They are not having system using techniques but proposed system allows using system independently and answering the questions in their own way. it should be helpful and

Some other issues of existing systems are

1. Time delay.
2. Not accurate.
3. Manual process need to be monitored.
4. Blind students cannot access independently, rely on others

## IV.PROPOSED SYSTEM

This project proposes a system that will create a revolution in a world of education by providing an easier way for visually impaired people to take tests just as normal students do.

Here an information or question have been delivered through voice as per the area and we want the blind people to select their option through the arrow key and also providing many option by pressing an appropriate key provided that will be given in the instruction would be displayed.

The entire system works with voice command (speech synthesis) along with normal system keyboard where visually impaired students will be comfortable and can work with many options.

# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

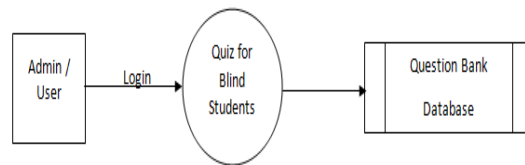
Website: [www.ijircce.com](http://www.ijircce.com)

Vol. 5, Issue 3, March 2017

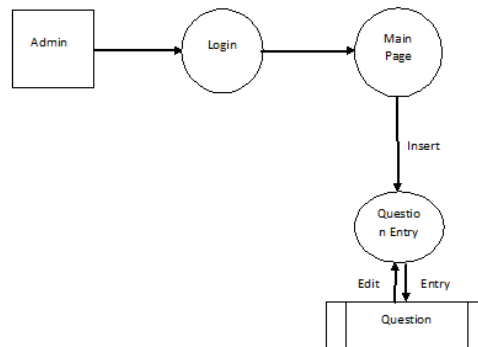
## V.DATA FLOW DIAGRAM

DFD

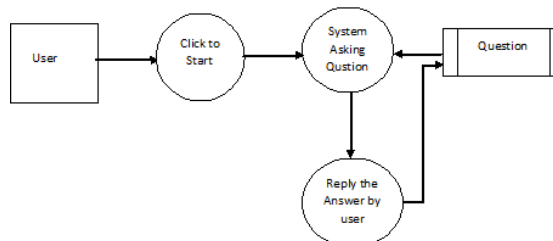
LEVEL 0



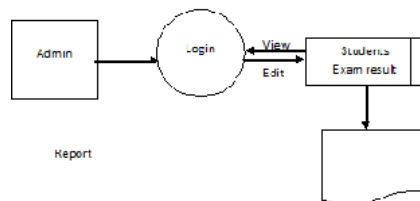
LEVEL 1



LEVEL 2



Level 3





ISSN(Online): 2320-9801  
ISSN (Print): 2320-9798

# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: [www.ijircce.com](http://www.ijircce.com)

Vol. 5, Issue 3, March 2017

## VI.CONCLUSION

Thus, the proposed system presents the development of platform independent system for examination purposes that can be easily accessed and used by students with visual impairments. The user interface for individuals is on system keyboard.

## REFERENCES

- [1] E-blind examination system IJIRST –International Journal for Innovative Research in Science & Technology| Volume 1 | Issue 11 | April 2015
- [2] Voice Based Online Examination for Physically Challenged MIT International Journal of Computer Science and Information Technology, Vol. 5, No. 2, August 2015
- [3]W. Huang, X. He, and Lin Qiao, “The Design and Implementation of Web-based E-learning Examination System Based on J2EE “.Proceedings of the International Conference on Information Technology, 2004 IEEE.
- [4]M. Nilsson and M. Ejnarsson, “Speech recognition using hidden Marko model performance evaluation in noisy environment.”
- [5]De La Beaujardiere, J. F., Cavallo, J., Hasler, A. F., Mitchell, H.,O'Handley, C., Shiri, R., & White, R. "The GLOBE Visualization Project: Using WWW in the Classroom." , Journal of Science Education and Technology, 6(1), 15-22, 1997.
- [6]Brooks, D.W., “Web-teaching: a guide to designing interactive teaching for the World Wide Web”. 1997, New York: Plenum Press.