Smart Exam System For Visually Challenged

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Abstract- **Still now blind people could not take up their exams independently. The proposed system focus on aiding the blind people to attend their exam independently. The recorded voice of the question paper and the voice input is given to the microcontroller. The Speech Recognition system is used to recognize the answers. The Personal Computer is used to monitor that the process is undergone in a right way. A LCD monitor is used for the display purpose. Hence, the charge for the writer is avoided. They can even alter the way of hearing the question by telling next question, previous one or skip to the next one, when answers detailed questions the Speech is recorded using the MATLAB Toolbox.**

Keywords-- **LCD, MATLAB Toolbox, Microcontroller Personal Computer (PC), Speech Recognition System**

I. INTRODUCTION

To handle exam independently through voice based automated exam process. Still now there is no automatic exam process for the visually challenged students to write their exams individually. They need a guide to write their exams. Thus our project proposes automatic exam process through voice synthesizer, speech recognition system and microcontroller.

II. SCOPE

To handle exam independently through voice based automated exam process. Still now they could write all their exams only with the help of a guide. The guide used to help them by getting a charge. Our project proposes automatic exam process through voice synthesizer, speech recognition system and microcontroller. Thus aiding the blind people to attend their exam independently, To improve the convenience, the blind can say "repeat the question, previous one or skip the particular question". Multiple Choice Questions will be evaluated by the system itself by comparing it with the correct answer already hardcoded in the Embedded C Program. For 2mark questions, the answers given by the blind is recorded as an audio file using the MATLAB and it can be later given to the evaluators for correcting it.

III. RELATED WORK

In the existing system the visually student used to write their exam with the guide. The guide is to help the blind one with charge. There are many disadvantages with this.Error may occur in writing of the Guide. The speed of the guide may vary with the oral of the blind. The blind one may also feel uneasy to ask the guide the same question, skip the next one etc.Misunderstanding may also occurs between the guide and blind one.

IV. PROPOSED MODEL

The visually challenged student can independently handle their exam. The microcontroller has the input of voice input and output.PC is to monitor that the process is undergone accurately and overall answer script for the evaluation purpose.LCD display is used for displaying the current answer information. Able to ask the same question for many times, skip the question, previous one and the next one. Occurrence of error is avoided. Charge given for the guide to write their exam can be saved. Technique is easy to use and cost is low.
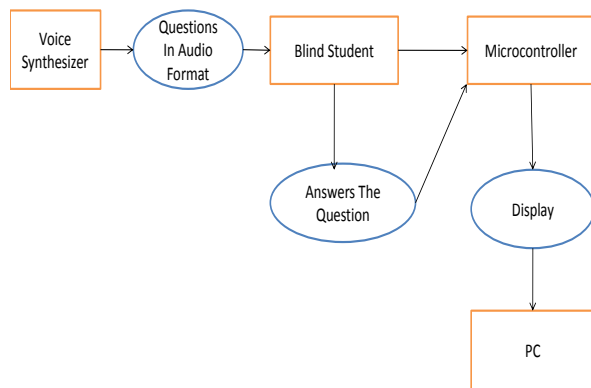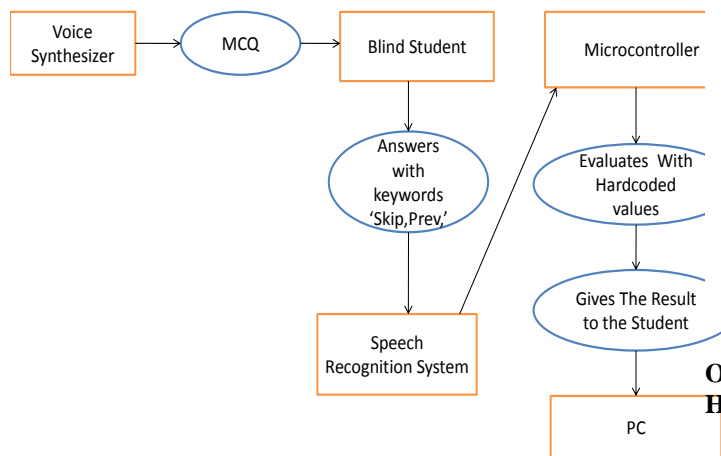
OVERALL ARCHITECHTURE
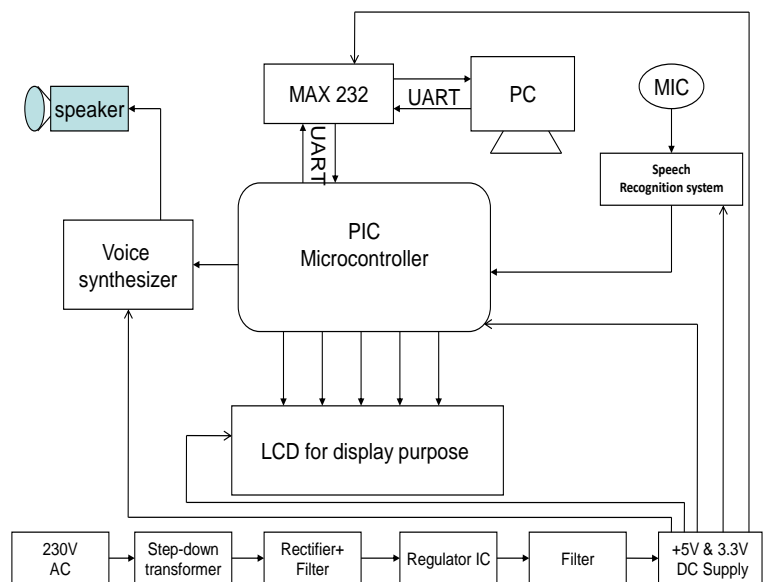
from PC and PIC to make it conditional for both. Blind people can answer MCQs as well as detailed answers. Thus, the person is able attend their exam independently and accurately without relying on others.
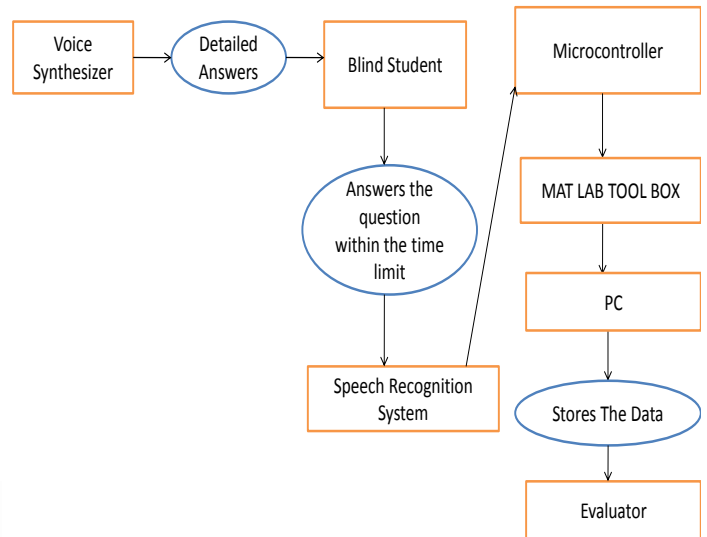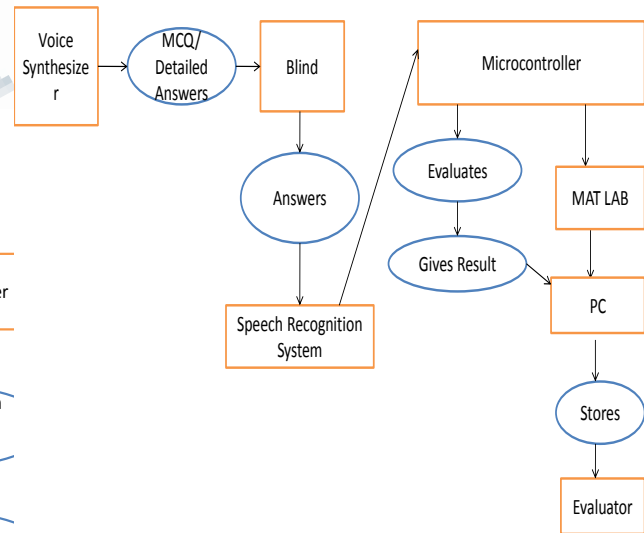
SYSTEM DESIGN

DATA FLOW DIAGRAM
LEVEL 0

LEVEL 1

LEVEL 2
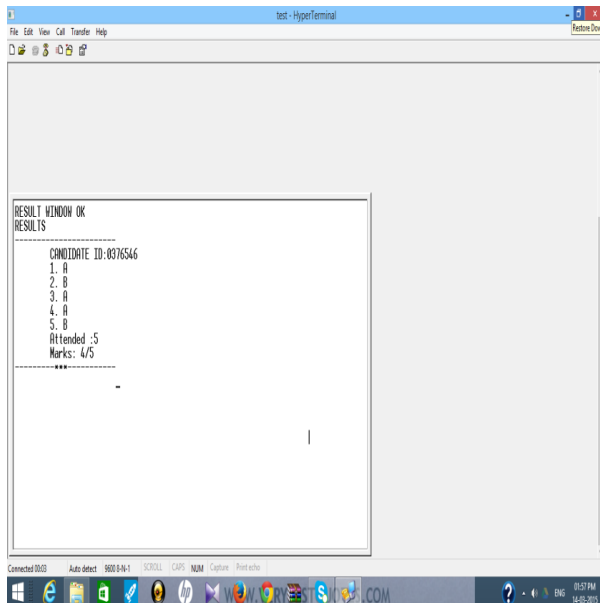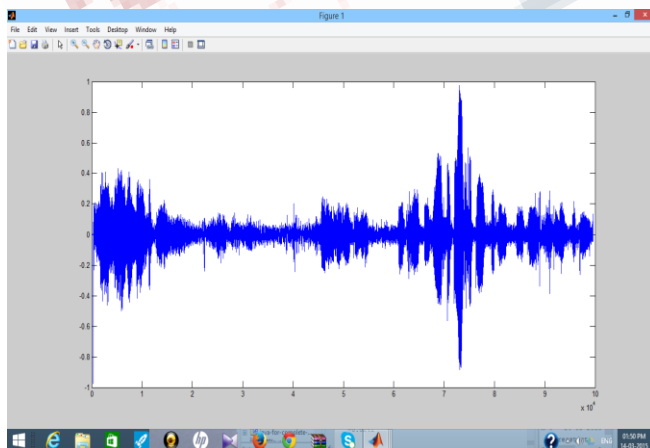

Level-3:

OUTPUT SCREENSHOTS
HARDWARE CONNECTIONS

MCQ OUTPUT

DETAILED ANSWER

CONCLUSION:

This proposed system would be a very useful for every blind people to admire their talent easily through easy online exam like other humans.Through this they can able to attend many exams like Board Exams, Govt.Exams in the future.The guide and the invigilators cost and strain can be reduced. The students can write their independently and confidently without relying others.

FUTURE ENHANCEMENT

The recorded answers are stored in voice synthesizer instead the question paper can be automatically converted from text to voice and it is recorded and given to the students which makes the system even more secure and flexible. And also we will try to do as much as improvement in future as per the collection of feedback

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YOUTUBE LINK
http://youtu.be/VmGXj7riJmg