

Bangla Braille to Text Translator

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SPL 2 program Committee

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1. Introduction:

This is a desktop application which converts Bangla braille document to its equivalent bangla characters and words. Braille is a reading and Writing system which can only be read with the sense of touch. It is used by blind And visually impaired people. Our application will take braille document as input and produces its equivalent bangla text .

2. Scope of the project:

1. Project Goal:

Developing a desktop application which converts Braille documentation to Text documentation

2. Workflow:

- a. Scan braille document
- b. Process scanned image
- c. Generating braille code file
- d. Convert braille code file to text file
- e. Checking spell
- f. Text to speech converter
- g. Printing text document

3. Languages and Tools:

- C++
- Qt designer

4. Deliverables:

- SRS documentation
- Desktop application

3. Motivation:

Braille is a scheme that enables read and write to blind and visually impaired people but not readable for all people. So visually impaired people can't reach normal people. There's a written communication gap. Again as examiners can't realize braille blind people need to take 'shruti lekhok' with them in the exam hall. So, through this system blind people will be able to reach normal people and give exams by themselves.

4. Workplan:

Our project involves three main steps:

1. Preprocessing:

- a. Image filtering
- b. Noise reducing and removing unwanted portions from image
- c. Converting original image to binary image

2. Braille Character Identification:

- a. Braille dot identification
- b. Braille cell identification
- c. Line identification
- d. Character identification

3. Post Processing:

- a. Word identification
- b. Spell checking
- c. Text generation