SPL-2 Proposal

Bangla Braille to Text Translator

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Description

We propose to develop a desktop application which converts Bangla braille document to its equivalent natural language characters and words. A braille character is made using a combination of 6 dots which is rearranged in two columns and three rows. A collection of raised dots with some language-wise syntax is used by the language to characterize the alphabet. It takes images of braille document as input and converts its equivalent text format. The system 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