**LIST OF FIGURES**

**Figure No.** **Title** **Page No.**

1.1 Unicode Box 04

3.1 System Block Diagram 19

3.2 Pre-Processing Block Diagram 20

3.3 An Example for Segmentation 20

3.4 An Example for Showing Base Line Identification 21

3.5 Cnn Block Diagram 23

3.6 The Kannada Alphabet 24

3.7 An Image Showing Different Fonts 24

3.8 Character Extraction Using Segmentation 25

3.9 Sorting the Sample 26

3.10 An Example Showing Characters with Varying Aspect Ratios 27

3.11 Sample of Size 15x20 27

3.12 Sample of Size 40x20 28

4.1 Depiction of The Selfcrop Code 30

4.2 Depiction of Baseline Identification 31

4.3 Depiction of Selfchar 31

4.4 Codes for Training the Cnn 32

4.5 Console Demonstration Showing Successful Cnn Creation 33

4.6 Training and Validation Curve 34

4.7 Code for Cnn Prediction Function 34

4.8 Code for Get Vatt Function 35

5.1 Accuracy for difficulty level easy 39

5.2 Accuracy for Difficulty Level Easy 40

5.3 Accuracy for Difficulty Level Easy 41

5.4 Input Image 42

5.5 Kanscan Output 43

6.1 Input 1 46

6.2 Output1 46

6.3 Input 2 47

6.4 Output 2 47

6.5 Input 3 48

6.6 Output 3 48