**LIST OF FIGURES PAGE NO**

Fig 3.1: Feature vectors are derived using Eigen faces 30

Fig 3.2: Example of Six Classes Using LDA 32

Fig 3.3: Snapshot of ORL Database 33

Fig 3.4: Snapshot of cropped Yale database 34

Fig 3.5: Geometrical feature used by Brunelli and Poggio 36

Fig 3.6: Left to Right HMM for face recognition 26

Fig 3.7: Image is split into shape and shape normalized texture 37

Fig 4.1: Different types of Face Detection Methods 41

Fig:4.2: Template Matching 42

Fig 4.3: Converting RGB image to Grayscale 45

Fig 4.4: Haar-like features for face detection 45

Fig 4.5: Haar-like features on face 46

Fig:4.6: Successfully detect the face in an image 46

Fig 4.7: Face detection vs. face recognition 48

Fig 4.8: 3D model of a human face 51

Fig 4.9: Thermal Image of a Human face 52

Fig 5.1: Workflow of Algorithm 57

Fig 5.2: Basic steps in KNN. 58

Fig 6.1: Database Folder 61

Fig 6.2: Images of students from database 61

Fig 6.3 Testing Image – 1 62

Fig 6.4 Testing Image – 2 63

Fig 6.5 Testing Image – 3 64

Fig 6.6 Testing Image – 4 65

Fig 6.7: Attendance in excel sheet 67

**LIST OF TABLES PAGE NO**

Table 3.1: ORL Result 34

Table 3.2: Yale Result 35