List of Tables

1.1 Evolution of ideas presented in the thesis. .......................... 16

3.1 Performance of speaker segmentation. ............................... 59

4.1 Comparison of proposed algorithm with SVM and GMM classifiers. 73

5.1 Determination of $t_c$. .................................................. 81

5.2 Error rates (MS, FA, SE and DER) obtained with our approach for the AUdata and RT’03S databases. ............................... 82

6.1 Language-wise performance of the HMM based LID system. ........ 100

6.2 False rejection (FA) and false acceptance (FR). ..................... 102

6.3 Confusion matrix (LID system using HMM). Rows correspond to the actual class of the test data, columns to the assigned class of the test data. . . . 102

6.4 Family-wise average performance of HMM based system. .......... 103

6.5 Language-wise performance of the GMM based LID system. .......... 106

6.6 False rejection (FA) and false acceptance (FR). ..................... 108

6.7 Confusion matrix (LID system using GMM). Rows correspond to the actual class of the test data, columns to the assigned class of the test data. . . . 108

6.8 Family-wise performance of GMM based system. ..................... 109