

ABSTRACT

Although many speech recognition systems are already available, it is not possible for them to recognize speech with 100% accuracy. This is because there are many impairments of speech recognition due to which speech may be recognized wrongly. Hence, we attempt to design a model for detecting those errors and to correct them. In our project, we intend to design a model for detecting errors in wrongly recognized words in Assamese speech recognition and to correct them so that accuracy rate can be made better than earlier.

This report describes a technique for detecting the possible errors in continuous Assamese speech recognition and to correct the errors of wrongly recognized words by substituting the phonemes using confusion matrix for Assamese phonemes and bi-gram grammar of Assamese context. For this purpose, we have used a phoneme set of 52 Assamese phonemes, a small vocabulary of 200 words and a small context consisting of almost 200 sentences. For some sentences the efficiency rate is 100% and for out of vocabulary word the efficiency rate is less.

Keywords: Speech recognition, phoneme, confusion matrix, efficiency rate, bi-gram grammar.