

Lip Localization Technique Towards an Automatic Lip Reading Approach for Myanmar Consonants Recognition

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Lip reading system is supportive technology to human being especially for hearing impaired, or elderly people. Lip reading is a process where visual information is extracted by watching lip movements of the speaker with or without sound. So, reliable lip movements are required to extract visual information. To our knowledge, this is the first work for lip movement recognition for Myanmar consonants. So, the major challenge is to recognize lip movements because of many possible lip motions and lip shapes. The accuracy and reliability of speech recognition systems can be improved by using visual information from the movements of the lips, and the need for lip-reading systems continues to grow for every language. Therefore, this paper presents Myanmar consonant recognition based on lip movements towards lip reading by using CIELa*b* color transformation, Moore Neighborhood Tracing Algorithm and linear SVM classifier. The purpose of this study was to develop a visual training technique to accurately identify the characteristics of the lips movement for hearing impairment.