

## **Movements Recognition Towards An Automatic Lip Reading System for One Syllable Myanmar Consonants**

**Thein Thein**

**theinthein.cmw@gmail.com**

**University of Computer Studies, Mandalay, UCSM**

**Kalyar Myo San**

**Kalyar.myosan@gmail.com**

**University of Computer Studies, Mandalay, UCSM**

Lip reading is a process of extracting visual information, observing the movement of the lips of the speaker with or without sound. To extract visual information, reliable movements of the lips are necessary. The major challenge is to recognize lip movements because of many possible lip motions and lip shapes. The accuracy and robustness of a speech recognition system can be improved by using visual information from lip movements and the need for lip reading system is ever increasing for every language. Therefore, this paper presents Myanmar consonant recognition based on lip movements toward lip reading by using CIELa\*b\* color transformation, Moore Neighborhood Tracing algorithm and Otsu global thresholding technique. This research aims to develop a visual teaching method system for the hearing impaired persons precisely identifying the features of lip movement.