## **ABSTRACT**

Development of Indonesian continuous speech recognition system are Phoneme - based. A numbers of research shown that Syllable-based Large Vocabulary Continuous Speech Recognition (LVCSR) are have higher accuracy than Phoneme-based LVCSR. Research Syllable-based Indonesian LVCSR have challenge to improve accuracy of LVCSR sistem more than Phoneme-based LVCSR. Development of Syllable-based LVCSR will using SPRAAK as Automatic Speech Recognition engine using Hidden Makarov Model (HMM) method. Result of Indonesian Syllable-based LVCSR have accuracy higher than Phoneme-based LVCSR, the results obtained on this research shown that Syllable-based LVCSR 11.14% lower Word Error Rate (WER) than Phoneme-based LVCSR

**Kata Kunci**: Continuous Speech Recognition, LVCSR, SPRAAK, Syllable, HMM, Syllable-based LVCSR, Phoneme-based LVCSR