

ABSTRACT

In this study, the authors used the voice recognition system as a supporter in the detection of disaster victims to streamline the rescue team in finding victims of the disaster. With the help of unmanned aircraft (drones) a speech recognition system will be apply in the micro computer installed on the drone.

Sounds that are detected are general sounds that are usually spoken by someone when they are in need of help or help and certainly the sound can be understood by humans, the voice list is contained in the next discussion, and the sounds will be used as training data which later becomes the research dataset . In the implementation the author uses the Hidden Markov Model (HMM) method as a method used for searching words or the best words detected as help or assistance requests, and also the author uses Mel-Frequency Cepstral Coefficient (MFCC) as an additional method for extracting the characteristics of each sound at dataset. Then when the test results find the input sound that matches the dataset, the system will send the location of the system which is obtained from the Global Positioning Systems (GPS) module to the rescue server using the Delay Tolerant Network (DTN) network. The parameters to be tested in this study include the noise level of the test site, the sound strength and distance that can be detected by the system.

Keywords : *Voice Recognition, Hidden Markov Model, Mel-Frequency Cepstral Coefficient, Delay Tolerant Network, Global Positioning Systems.*