ABSTRACT

Nowadays, the user of camera has increase. The user camera mostly used to capture daily activities in pictures and video, for example a video blog. However, the changes in camera movement cause the camera can not be stable. Therefore the position of the camera must be controlled on a device so the camera can be stable.

Therefore the author performs a final task assignment to create a tool that can stabilize the camera position using IMU sensors. IMU sensor serves to detect the changes position associated with microcontroller as the controller. The research method used Fuzzy Logic control. Fuzzy Logic is generally applied to problems that contain elements of uncertainty developed based on human thinking that has many possibilities. There are three main processes in Fuzzy Logic implementation: fuzzyfication, inference system, and defuzzyfication.

Based on the results of the implementation of fuzzy logic control in this study that the camera position can stable. In this experiment the changes of range at membership function and the changes output in the outdefuzzy affect the speed to stable. The time required for a stable on the roll axis is 2.64 seconds, while the pitch axis is 6.87.

Keywords: Arduino Nano, IMU, Servo Motor, Fuzzy Logic Control.