ABSTRACT

One of the natural disasters that often occur in Indonesia is the flood. This causes all activities that are in the flood-stricken area to stop, not infrequently many residents who must be evacuated because their homes flooded. One of the solutions proposed is the creation of early flood detection system, which can inform residents and SAR team in handling the disaster that will occur. Research on the development of early flood detection equipment is expected to predict the flood optimally. Therefore, this research proposed the development of flood detection tool using fuzzy method to predict the early existence of flood with several parameters. Fuzzy method with mamdani technique will be used, so the value obtained will give the possibility of flooding. The process of data retrieval using sensors that are installed using a microcontroller. The expected goal in the development of this system is able to detect floods and overcome the existing problems before the disaster occurred.

Keywords: Deteksi Dini Banjir, Fuzzy Mamdani, Mikrokontroller