ABSTRACT

Indonesia as a maritime and agricultural country has many characteristic weather in different region. Information about weather forecasts quickly and accurately is important for this modern era, because weather becomes inseparable part of human activity and affect many areas of life, such as the determination of the growing season (agriculture), the feasibility of departure aircraft (transportation), and activities in other fields.

Local weather stations tool uses three different sensors which are used to detect the state of the environment. And after data obtained from the three sensors that were mounted, there are the air temperature sensor, air humidity sensor, and light intensity sensor, they will be combined using experienced method/fuzzy method that would showed the correct weather forecast.

From the results had been tested, from the third sensors that have attached on a local weather station tool, each sensor have advantages and disadvantages. Air temperature sensor has average error about 1.8 of thermometer, for air humidity sensor has average error 0.8 of hygrometer. And for the light intensity sensor has average error about 22 of the LDR sensor. After each sensor are tested and combined using experienced method/fuzzy method, obtained seven times accuracy for analyzes the weather of environment, and 3 times analize is fault. Testing had been doing for 10 times in 10 days, in the different weather or diferent conditions.