ABSTRACT

Blockage of the hose infuse due to blood clot is very dangerous to health. This case has the potential to be a stroke called embolic stroke. This blockage is due to the hose infuse nurse negligence in monitoring the smooth flow of infusion. Another case is almost similar increase in blood due to intravenous fluid that is up but not replaced on time. It also causes the patient to bleed out. Existing medical instrumentation currently very expensive, as well as data communications still use the cable. So that patients who use this instrumentation only patients in the ICU.

In this final project developed a tool capable of detecting the flow rate and volume of fluid in the infusion. There is a sensor that can detect the presence of droplets using light analog value changes. The amendment strengthened and converted into a digital signal by the ADC on the microcontroller features. The digital signal is converted into the amount received by the microcontroller unit drops per minute. Then microcontroller is connected directly to the serial to wifi module. Data will be received through the access point and the PC is connected directly to the display on the PC application.

In this final project has created a tool that is able to detect the speed of hose infuse drip with the average error in unit conversion value of 1.23%.

Keyword : Infusion, Microcontroller, ADC, wifi