ABSTRACT

A warm bath can relax the body and mind after a tiring activity and struggling with a lot of work. But getting hot water for bathing using the water heater takes a long time, by integrating the water heater system with Telegram, turning on the water heater remotely can be done. The Telegram bot activates the water heater system through the ESP8266 module, the Arduino microcontroller as the center of the system activates the mechanism to fill the water in the tank, then the water will be heated using the Screw Plug Immersion Heater, the DS18B20 temperature sensor will detect the hot water temperature and then send data to the Arduino microcontroller. The water heater system will stop heating the water when the water temperature specified via Telegram has been reached then the heater will be in the off condition, then the system will turn on again when the water temperature is lower than the specified temperature. The water temperature data will be sent by the Arduino microcontroller to Telegram via the ESP8266 module. By designing a water heater system like this, it can save time to wait for hot water before use because it can activate the system remotely anytime anywhere and can keep the hot water stable at a specified temperature using PID.

keywords : water heater, Telegram, remote, PID