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ALGORITHM CLAASSWORK

Software for irrigation system

CONCEPT: THE Computer program is a plc program that digitalizes irrigation

Specification:

Scanner: to scan the moisture content and general environment of the soil.

Temperature sensor: to read a particular time temperature of a soil and sense changes in the temperature of the soil.

Facial recognition system: to prevent unauthorized access to the controls of the system, a facial recognition system is installed and a password word is implemented.

Weather station: To read the weather condition, this would help in determining the amount of water needed during a particular season.

Water controller: To control the amount of water released to the soil at a particular season.

Time monitor: To calculate the time needed for the water controller to supply water to a particular part of the soil.

Soil moisture sensor: to read soil moisture content and send data to the cloud server.

GUI: This involves all the interactive aspects of the system such as the controls, push buttons, text view, display, editing view

Design

Algorithm

Start

Scan location;

Read Temperature, Radiation and Moisture content;

If moisture content < 17%;

Read water flow;

else

Calculate duration;

Start irrigation;

Read water flow

Set timer till nutrient requirement met

End duration

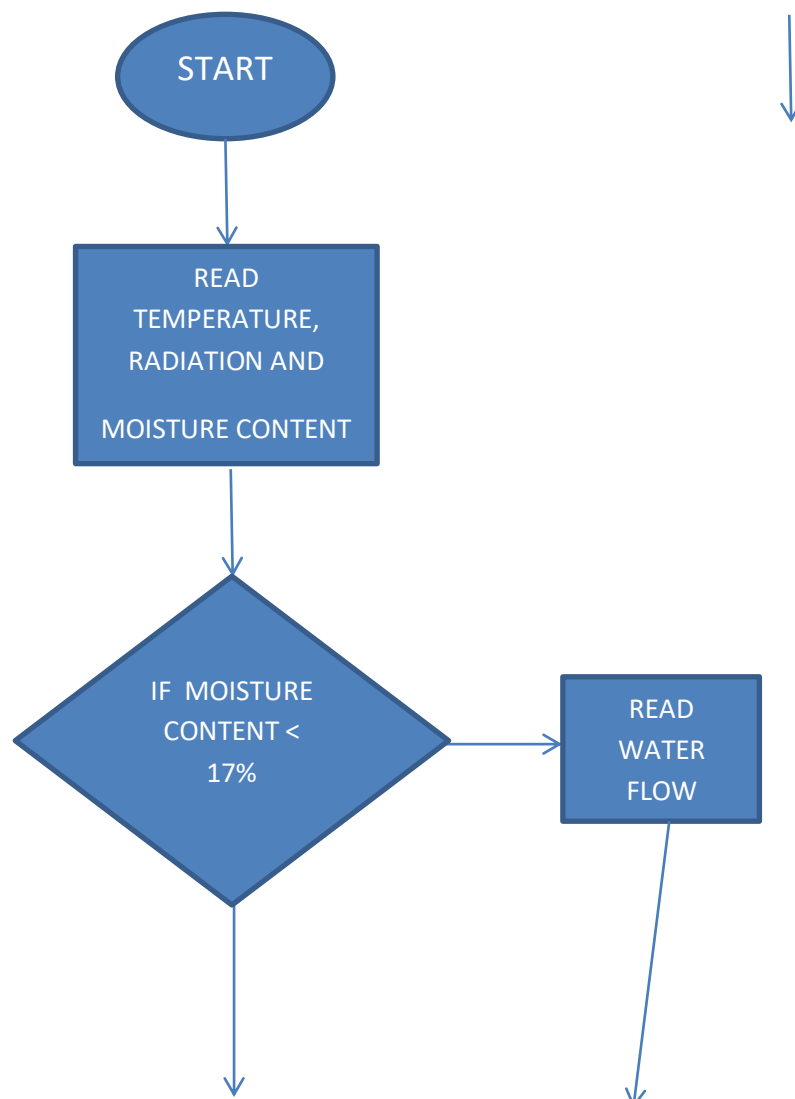
Send data to master node

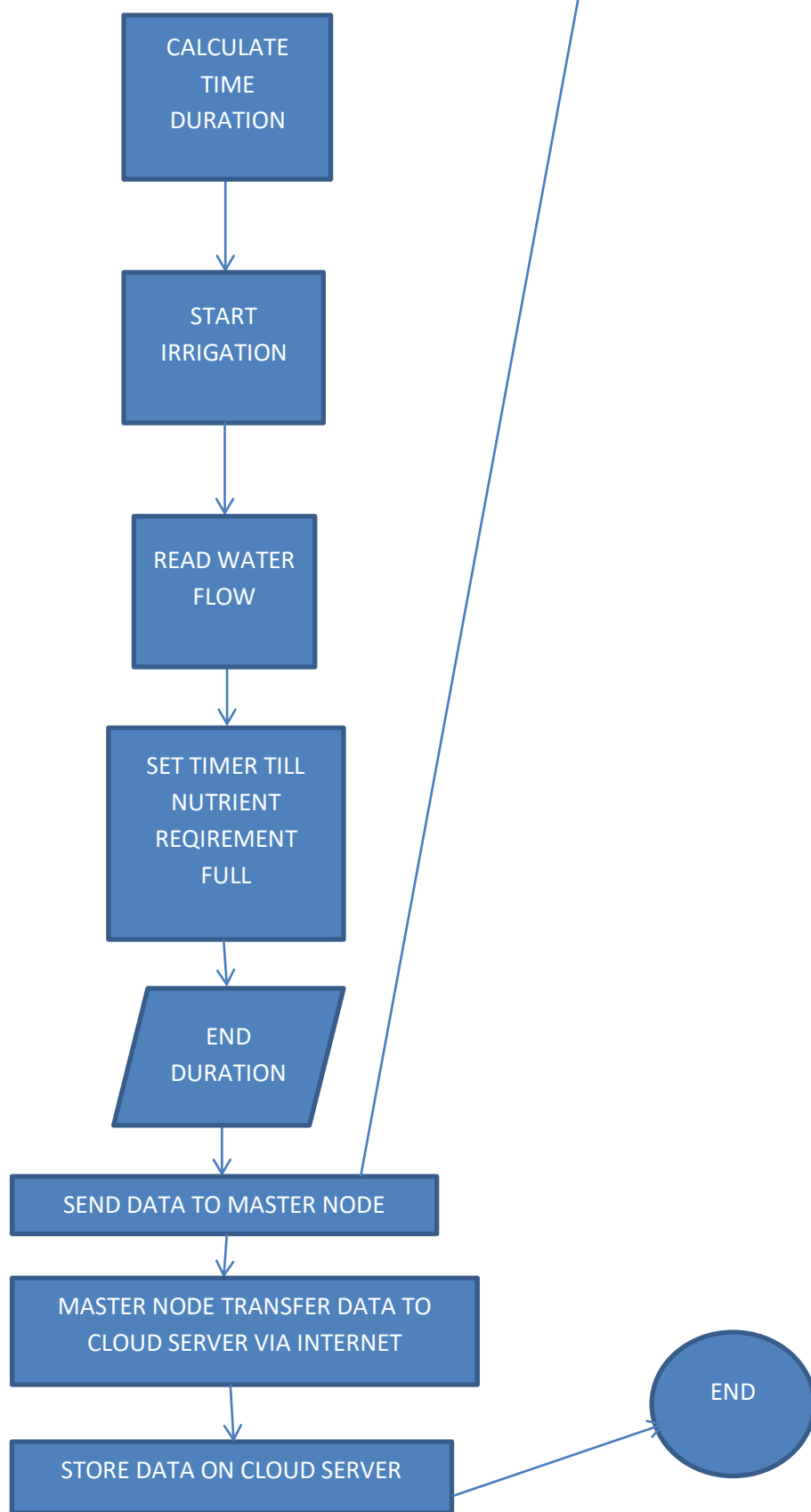
Master node transfer data to cloud server via internet

Store data on cloud server

END

FLOW CHART





IMPLEMENTATION

Ladder Logic PLC programming language

Top down design

