



PROJECT REPORT
DESIGNING INTERNET OF THINGS (IoT) FOR
MONITORING pH-VALUE, HUMIDITY, AND
TEMPERATURE IN THE RIVER OF
KALIGARANG

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2018

APPROVAL AND RATIFICATION PAGE

DESIGNING INTERNET OF THINGS (IoT) FOR MONITORING pH-VALUE,
HUMIDITY, AND TEMPERATURE IN THE RIVER OF KALIGARANG

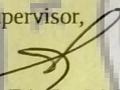
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This project report has been approved and ratified
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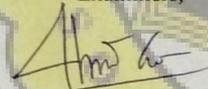
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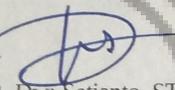

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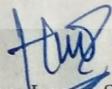
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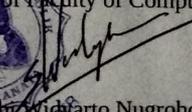
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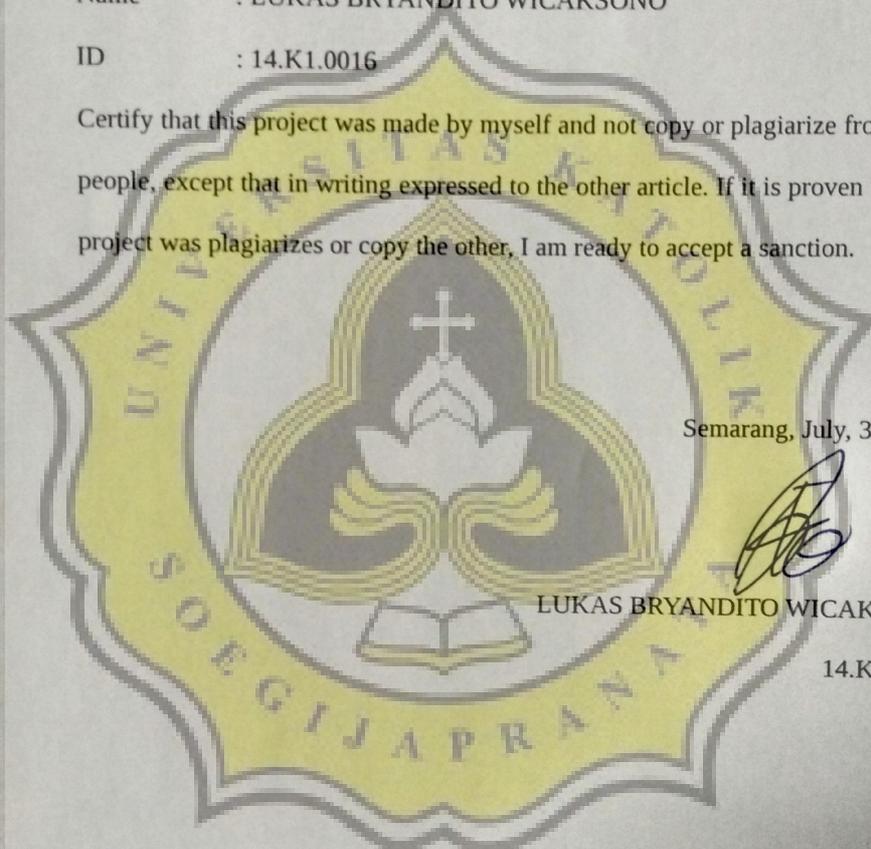
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ABSTRACT

The conventional method of water quality testing is to collect water samples manually and send to the laboratory for testing and analysis. This method is time consuming, a waste of human labor, and uneconomical. Our water quality measurement system checks water quality in real time through various sensors (one for each parameter: pH and turbidity) to measure water quality.

This paper discusses the development of preservation and maintenance of river kaligarang associated with water pH value, water level monitoring (ultrasonic module), temperature (DHT module) around the river, the location of the sensor installation to be connected using Wi-Fi module. There will also be Wi-Fi based applications or on web servers. The interaction between the device and the system will be done over the network and using Micro-Controller. All messages are programmed and controlled by Arduino UNO microcontroller. Also, the main control system implements wireless Wi-Fi technology to provide remote access from the computer.

This system can closely monitor the pollution of water resources and be able to provide a safe water environment. It is important to monitor it periodically and display monitoring data from wifi and display latitude / longitude from Global Positioning System (GPS). Water quality monitoring assists in evaluating the nature and level of pollution control required, and the effectiveness of pollution control measures.

Real-time, low cost, efficient water quality monitoring system has been implemented and tested. Through this system, officials can track the level of pollution occurring in water bodies and send warnings directly to the public. This can help prevent diseases caused by water pollution and metal presence. Rapid action can be taken to curb extreme levels of pollution as in the case of the Ganges and Yamuna. This system can be easily installed, with base stations fixed close to the target area, and monitoring tasks can be performed by less trained individuals. Modeling performance in different environments is important to learn

in the future as different types of monitoring applications require different settings during system installation.

Keyword: pH meter, DHT, turbidity, ultrasonic, arduino UNO, GPS.



PREFACE

This topic of this project are monitoring p-H-Value, humidity, and temperature. Which, consist of 6 chapters. This project was funded by DP2M DIKTI. The first chapter discuss about background problem, scope and the objective of the project. On the second chapter there is literature study that describes another researches that related to this project. Third chapter is research methodology which discuss the stages and methods applied in the project. Fourth chapter is analysis and design that illustrates how the system works. The fifth chapter is implementation and testing describing the implementation of the system design and the testing process of the project mode and output produced. The last chapter is conclusion of the project.

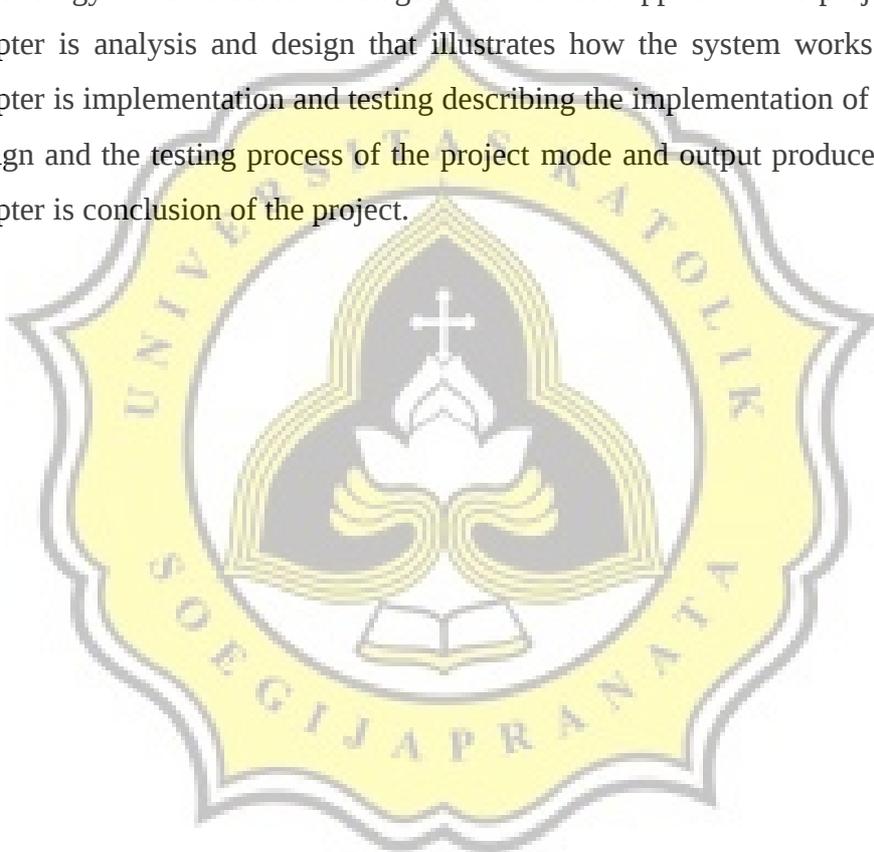


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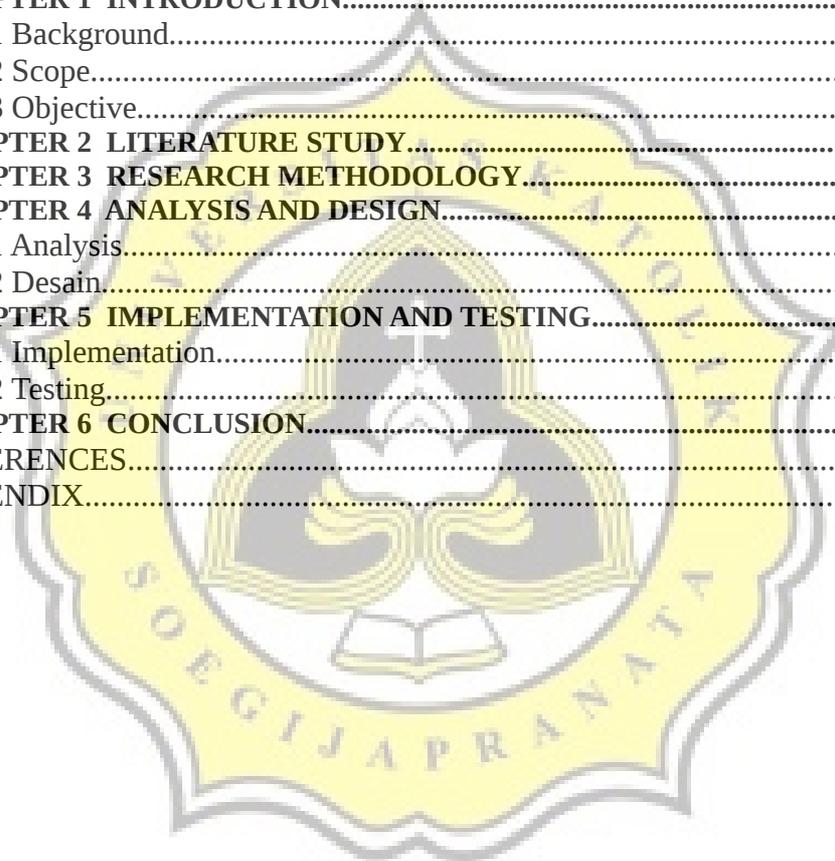


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