



PROJECT REPORT
LOCATION BASED FIRE DETECTION, WITH
NEAREST FIRE FIGHTER FINDER

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Faculty of Computer Science
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2018

APPROVAL AND RATIFICATION PAGE

LOCATION BASED FIRE DETECTION, WITH NEAREST FIRE FIGHTER

FINDER

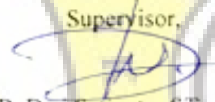
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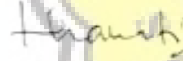


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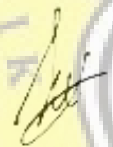
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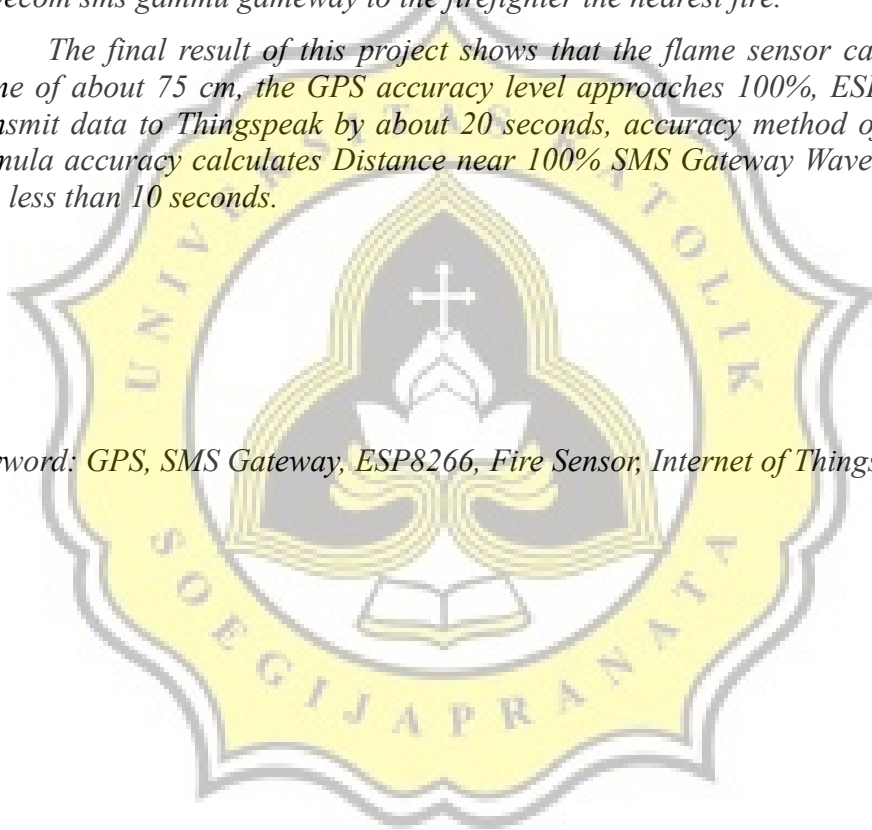
ABSTRACT

The lack of fire department makes it hard for most people to contact where the nearest fire department to the scene. For this reason we use sensitive sensors of fire to the flame.

The project uses arduino uno microcontrollers, fire sensors, Neo-7m Ublox GPS, ESP8266, and wavecom. As soon as the flame sensor detects the flame, ESP8266 will send the gps data from the home location to the web server www.thingspeak.com which then data from thingspeak is taken to do the nearest distance search using the method of Haversine Formula then send the sms using wavecom sms gammu gateway to the firefighter the nearest fire.

The final result of this project shows that the flame sensor can detect a flame of about 75 cm, the GPS accuracy level approaches 100%, ESP8266 can transmit data to Thingspeak by about 20 seconds, accuracy method of accurate formula accuracy calculates Distance near 100% SMS Gateway Wavecom sends sms less than 10 seconds.

Keyword: GPS, SMS Gateway, ESP8266, Fire Sensor, Internet of Things



PREFACE

The final project report consist of six chapters. The first chapter describes the background problem, the scope, and the objectives of this project. Chapter two contains literature study from each journals consist of six journals that explain about Arduino UNO, Fire Sensor, GPS Ublox Neo-7M, ESP8266, Haversine Formula, Thingspeak, and SMS Gateway Gammu Wavecom. Chapter three discusses the steps in making this project and describes each modules. Chapter four contains analysis and design using flowchart. Chapter five discusses the implementation and testing of this project. The last chapter six contains the conclusions and further research of the project.

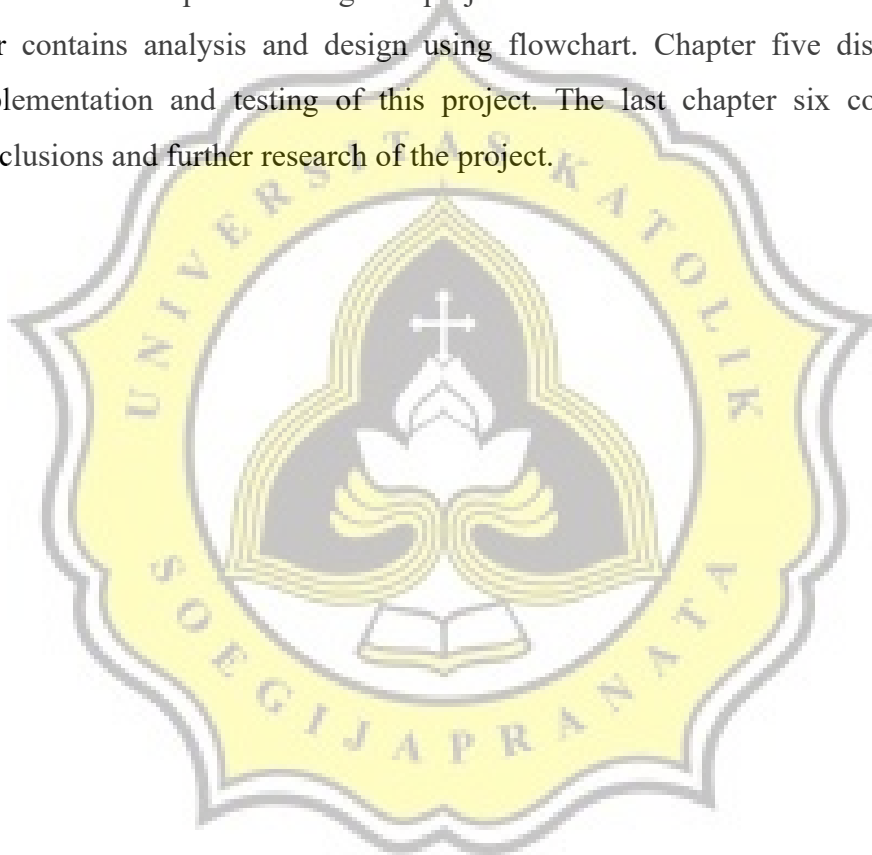


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