PROJECT REPORT

TEMPERATURE AND HUMIDITY CLASSIFICATION USING NAIVE BAYES ALGORITHM WITH DHT22 SENSOR

JAP YOSIA WINNER CAHYAJAYA
14.K1.0039

Faculty of Computer Science
Soegijapranata Catholic University
2018

APPROVAL AND RATIFICATION PAGE

TEMPERATURE AND HUMIDITY CLASSIFICATION USING NAIVE BAYES ALGORITHM WITH DHT22 SENSOR

by

JAP YOSIA WINNER CAHYAJAYA – 14.K1.0039

This project report has been approved and ratified

by the Faculty of Computer Science on January, 22, 2018

With approval,

Supervisor,

Hironimus Leong S, Kom., M. Kom
NPP : 058.1.2007.273

Examiners,

1.)

Suyanto EA, Ir., M.sc
NPP : 058.1.1992.116

2.)

YB. Dwi Setianto, ST., M.Cs
NPP : 058.7.2017.021

3.)

Rosita Herawati, ST., MIT
NPP : 058.1.2004.263

Dean of Faculty of Computer Science,

Erdhi Widyarto Nugroho, ST., MT
NPP: 058.1.2002.254

STATEMENT OF ORIGINALITY

I, the undersigned:

Name : JAP YOSIA WINNER CAHYAJAYA

ID : 14.K1.0039

Certify that this project was made by myself and not copy or plagiarize from other people, except that in writing expressed to the other article. If it is proven that this project was plagiarizes or copy the other, I am ready to accept a sanction.

Semarang, January, 22, 2018

JAP YOSIA WINNER CAHYAJAYA
14.K1.0039

ABSTRACT

Now, weather conditions can change over time, weather is affected by temperature and humidity. Weather research is needed to know and prepare in case of weather anomalies.

Weather research can be done with temperature and humidity sensors DHT22. Temperature and humidity data that has been obtained can be processed with data classification techniques to get a conclusion. The classification of temperature and humidity can be solved by the Data Mining method, using the Naive Bayes algorithm.

Final conclusions can be made in table form and weather predictions are very possible to do so preparations for the upcoming weather can be well prepared.

Keyword: DHT22, Data Mining, Naive Bayes, weather prediction

PREFACE

This report consists of 6 chapters covering Introduction, Literature Study, Research Metodology, Analysis and Design, Implementation and Testing, Conclusion. Chapter 1 discusses the definition of temperature and humidity as well as the purpose of this project. Chapter 2 discusses 4 journals on Naïve Bayes, 3 journals on the DHT22 Sensor, 1 journal on IOT and the differences between this project and the projects created by others with journals. Chapter 3 discusses all the activities undertaken in order to complete this project. Chapter 4 contains analysis and design, the analysis discusses arduino tools and sensors in use while the design addresses the designs used in assembling sensors. Chapter 5 contains implementation and testing. Implementation contains the results of sensor design and the process of sending data to Thingspeak using API, while testing contains the results of Naïve Bayes algorithm applied to the data from Thingspeak. Chapter 6 discusses the results of this project, the conclusions drawn on the accuracy of the data processed by the Naïve Bayes algorithm.

TABLE OF CONTENTS

ILLUSTRATION INDEX

INDEX OF TABLES