Control and Monitoring System Application based on Android OS using Arduino microcontroller with Bluetooth connectivity

TUGAS AKHIR

Diajukan guna melengkapi sebagian syarat dalam mencapai gelar Sarjana Strata Satu (S1)

Disusun Oleh:

Nama	**: Ersa Aditya Hasdianto**
NIM	**: 41413010038**
Program Studi	**:Teknik Elektro**
Pembimbing	**:Triyanto Pangaribowo, S.T., M.T.**

PROGRAM STUDI TEKNIK ELEKTRO

FAKULTAS TEKNIK

UNIVERSITAS MERCU BUANA

JAKARTA

2017

LEMBAR PERNYATAAN

Yang bertanda tangan di bawah ini:

Nama	: Ersa Aditya Hasdianto
NIM	: 41413010038
Fakultas	: Teknik
Jurusan	: Teknik Elektro
Judul Tugas Akhir	: Control and Monitoring System Application based on Android OS using Arduino microcontroller with Bluetooth connectivity

Dengan ini menyatakan bahwa hasil penulisan Tugas Akhir yang telah saya buat ini merupakan hasil karya sendiri dan benar keasliannya. Apabila ternyata di kemudian hari penulisan Tugas Akhir ini merupakan hasil plagiat dan penjiplakan terhadap karya orang lain, maka saya bersedia mempertanggungjawabkan sekaligus bersedia menerima sanksi berdasarkan aturan tata tertib di Universitas Mercu Buana.

Demikian, pernyataan ini saya buat dalam keadaan sadar dan tidak dipaksakan.

Penulis,

(Ersa Aditya Hasdianto)

ii

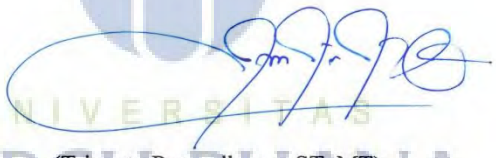
LEMBAR PENGESAHAN

Control and Monitoring System Application based on Android OS using Arduino microcontroller with Bluetooth connectivity

Disusun Oleh:

Nama	: Ersa Aditya Hasdianto
NIM	: 41413010038
Jurusan	: Teknik Elektro

Pembimbing,



(Triyanto Pangaribowo, ST, MT)

Mengetahui,

Ketua Program Studi

(Dr. Setyo Budiyanto. ST. MT)

iii

Acknowledgement

First and foremost, I am grateful to Allah for the good health and wellbeing that are necessary to complete this project entitled “Control and Monitoring System Application based on Android OS using Arduino microcontroller with Bluetooth connectivity” to fulfill the requirement for completing the Bachelor degree at the Faculty of Engineering in Mercu Buana University.

I have to thank my research supervisor, Mr. Triyanto Pangaribowo, S.T, M.T. Without his assistance and dedicated involvement in every step throughout the process, this paper would have never been accomplished. I would like to thank you very much for your support and understanding over these past two years.

I take this opportunity to express gratitude to all of the department faculty members for their help and support, especially to all of the teachers for your patience and your excellence in teaching me.

I would like to thank my friends for accepting nothing less than excellence from me. Last but not the least, I would like to thank my family: my parents and to my sister for supporting me spiritually throughout writing this thesis and my life in general.

Jakarta, August 5th 2017

Ersa Aditya Hasdianto

Table of Contents

List of Figure

List of Table