AUTHENTICITY STATEMENT

In the name of Allah, I hereby certify that this research is based on my own work and studies, except for the citation and summaries in which of those is explicitly knowledge. If in the future this statement is proved not right and violated the legal regulation of papers and intellectual property rights, I agree Universitas Islam Indonesia to revoke my bachelor certificate.

Yogyakarta, June 5th 2018

3693BAEF214369752

Ekky Anastasia Pramita 13 522 253

THESIS APPROVAL OF SUPERVISOR

Muscle Contraction Analysis of the Prolonged Astride-Sitting on Motorcycle using Surface Electromyography

UNDERGRADUATE THESIS



Name

: Ekky Anastasia Pramita

Student no.: 13 522 253

Yogyakarta, May 31st, 2018

Supervisor

Hartomo, Ir., M.Sc., Ph.D

THESIS APPROVAL OF EXAMINATION COMMITTEE

MUSCLE CONTRACTION ANALYSIS OF THE PROLONGED ASTRIDE-SITTING ON MOTORCYCLE USING SURFACE ELECTROMYOGRAPHY

By:

Name : Ekky Anastasia Pramita

Student Number : 13 522 253

Had been defended in front of Examination Committee in Partial Fulfilment of the Requirement for the Degree of Sarjana Teknik Industri Faculty of Industrial

Technology Universitas Islam Indonesia

Yogya<mark>karta, June 5th, 2018</mark>

Examination Committee

Amarria Dila Sari, ST., M.Sc.

Examination Committee Chair

Ir. Hartomo, M.Sc., Ph.D.

Member I

Annisa Uswatun Khasanah, ST., M.Sc.

Member II

Acknowledged by,

Head of Department

International Program Industrial Engineering

Universitas Islam Indonesia

(Muhammad Ridwan Andi Rumomo, ST., M.Sc., Ph.D.)

DEDICATION PAGE

This undergraduate thesis dedicated to,

My parents, Pramono Hudiarso and Muntomimah and all relatives who support all psychological and financial things for my study accomplishment

My friends of batch 2013, who were being my family during my study

Universitas Islam Indonesia, all lecturers, staffs, who supports my study to get bachelor degree

MOTTO

فَإِنَّمَعَالْعُسْرِ يُسْرًا ۞إِنَمَعَّ الْعُسْرِ يُسْرًا ۞

"Then, indeed with hardship [will be] ease. with hardship [will be] ease." (QS: Al-Insyirah 5-6)

PREFACE

Assalamu'alaikum Warahmatullah Wabarakatuh

Alhamdulillah and gratitude are presented to Allah, which has always grants with His grace, strength, and blessing so the author could complete this undergraduate thesis. Therefore, the author would like to thank for those who have been constantly sending supports and motivations in the making of this report. The author would like to thank:

- Allah SWT, for all uncountable blessings every day and also Rasulullah Muhammad SAW for His guidance in the right way.
- 2. My beloved mother, father, brother, and other families for the prayer, support, and motivation.
- 3. Ir. Hartomo Soewardi, M.Sc., Ph.D. as the supervisor for unlimited time for helping, supporting, and advising.
- 4. Muhammad Ridwan Andi Purnomo., ST., M.Sc., Ph.D as Head of International Program Industrial Machineering Universitas Islam Indonesia
- 5. Dr. Drs. Imam Djati Widodo, M.Eng.Sc. as dean of Industrial Technology Faculty, Universitas Islam Indonesia
- 6. All of my friends from Industrial Machineering International Program especially batch 2013 for the support, motivation even annoying that cannot be mentioned one by one.
- 7. Mrs. Diana and Mrs. Devi that patiently help the students, especially the author.
- 8. All parties who give his time for helping author in taking data.

The Authors also thanks to all of concerned parties that cannot be mentioned one by one who have helped me in completing this report. Hopefully, the goods which are given by all parties to the Author will be replied by the kindness from Allah.

viii

Finally, the Author realizes that there are still shortcomings as well as

weaknesses in this report, so the building suggestions and critics are fully expected. The

author hopes this paper would bring advantages for everyone who reads this.

Wassalamu'alaikum Warahmatullah Wabarakatuh

Yogyakarta, April 23rd, 2018

Ekky Anastasia Pramita