

**THE STUDY OF HUMAN COMPUTER INTERACTION: THE IMPACTS OF  
SMARTPHONE USAGE TO HUMAN VISION AND COGNITIVE  
PERFORMANCE**

by

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### STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains neither material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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## ABSTRACT

### THE STUDY OF HUMAN COMPUTER INTERACTION: THE IMPACTS OF SMARTPHONE USAGE TO HUMAN VISION AND COGNITIVE PERFORMANCE

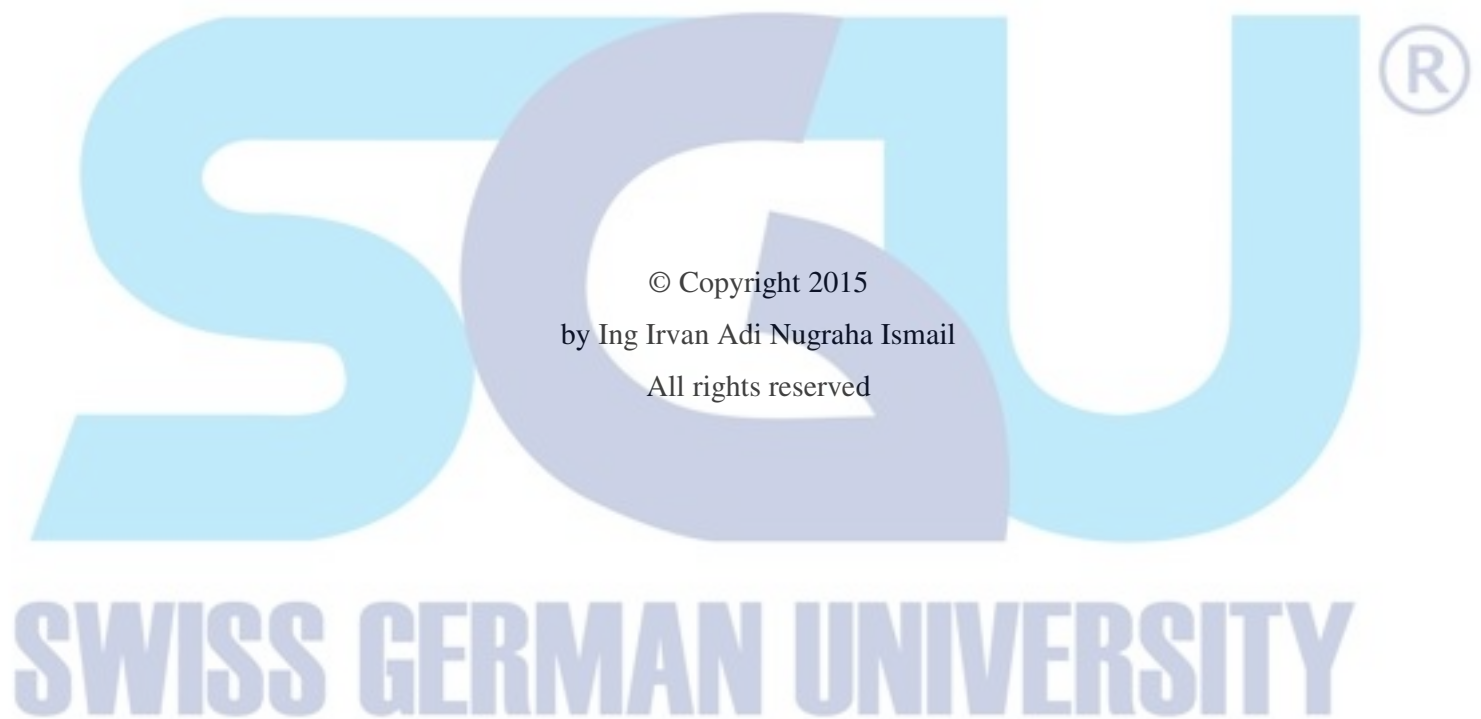
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Today smartphone have become common needs in human life. Every year there is an increase in the number of smartphone user and the user are getting younger. However there are some disadvantages in using a smartphone. This thesis research is conducted to find out the impact of smartphone usage to human vision and cognitive performance. To identify the impact of smartphone usage, survey research is done in the form of questionnaire and controlled study was conducted. Questionnaire is distributed to several universities' student. This questionnaire is used to find out the impact of smartphone to human body. Controlled study is done to find out the impact of smartphone to human cognitive abilities. The data from the questionnaire is analysed statistically in the SPSS software using the non-parametric test (Mann-Whitney U and Kruskal Wallis test). The result of this research show that gender, lighting, chatting, gaming, and browsing affects human vision and cognitive performance. Based on the findings, smartphone user have to pay attention to lighting, take a break every 20 minutes of usage and reduce chatting and gaming frequency.

*Keywords: Human Vision, Cognitive Performance, Human Computer Interaction*



## **DEDICATION**

I dedicate this works for my future and my family.



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