PRESIDENT
UNIVERSITY

**CYBER SECURITY THREATS: RANSOMWARE ATTACKS**
**IN SINGAPORE (2020-2021)**

**UNDERGRADUATE THESIS**

**Submitted as one of the requirements to obtain**
**Sarjana Sosial**

**By:**
**FILZA NABILA PUTRI LATJARE**
**016201900141**

**FACULTY OF HUMANITIES**
**INTERNATIONAL RELATIONS STUDY**
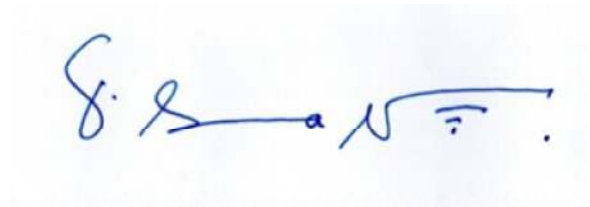**PROGRAM CIKARANG**

**FEBRUARY, 2023**

# FINAL PROJECT ADVISOR RECOMMENDATION LETTER

This final project entitled **"Cyber Security Threats: Ransomware Attacks in Singapore (2020-2021)"** prepared and submitted by Filza Nabila Putri Latjare in partial fulfilment of the requirements of the degree of Bachelor of Arts in International Relations in the Faculty of Humanities has been reviewed and found to have satisfied the requirements for a final project fit to be examined. We, therefore, recommend this final project for Oral Defense.

Cikarang, 8 January 2023
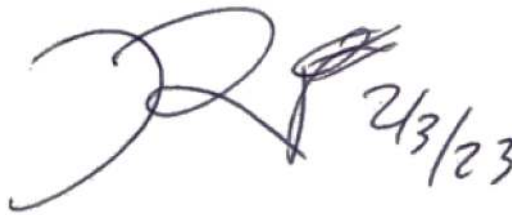
Acknowledged and recommended by:

**Fahlesa Munabari, Ph.D.**

# PANEL OF EXAMINER APPROVAL

The Panel of Examiners declare that the undergraduate final project entitled **"Cyber Security Threats:  Ransomware Attacks in Singapore (2020-2021)"** that was submitted by Filza Nabila Putri Latjare majoring in International Relations from the Faculty Humanities was assessed and approved to have passed the Oral Examination on February 16, 2023.

**Panel of Examiner**

**Anggara Raharyo, S.I.P., M.P.S**

**Examiner**

**Fahlesa Munabari, Ph.D.**
**Final Project Advisor**

# STATEMENT OF ORIGINALITY

In my capacity as an active student of President University and as the author of the undergraduate thesis/<u>final project</u>/business plan (underline that applies) stated below:

Name                     : Filza Nabila Putri Latjare

Student ID number   : 016201900141

Study Program       : International Relations

Faculty                : Faculty of Humanities

I hereby declare that my undergraduate final project plan entitled **"Cyber Security Threats: Ransomware Attacks in Singapore (2020-2021)"** is, to the best of my knowledge and belief, an original piece of work based on sound academic principles. If there is any plagiarism, including but not limited to Artificial Intelligence plagiarism, is detected in this undergraduate final project plan, I am willing to be personally responsible for the consequences of these acts of plagiarism, and accept the sanctions against these acts in accordance with the rules and policies of President University.

I also declare that this work, either in whole or in part, has not been submitted to another university to obtain a degree.

Cikarang, January 23, 2023

**Filza Nabila Putri Latjare**

# SCIENTIFIC PUBLICATION APPROVAL FOR ACADEMIC INTEREST

As a student of the President University, I, the undersigned:

Name                         : Filza Nabila Putri Latjare

Student ID number     : 016201900141

Study program              : International Relations

for the purpose of development of science and technology, certify, and approve to give President University a non-exclusive royalty-free right upon my final report with the title:

**Cyber Security Threats:  Ransomware Attacks in Singapore (2020-2021)**

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**Filza Nabila Putri Latjare**

## ADVISOR'S APPROVAL FOR PUBLICATION

As a lecturer of the President University, I, the undersigned:

Advisor's Name          : Fahlesa Munabari, Ph.D.

NIDN                    : 0311048205

Study program           : International Relations

Faculty                 : Faculty of Humanities

declare that following final project:

Title of undergraduate final project  :  Cyber  Security  Threats:  Ransomware  Attack  in Singapore (2020-2021)

Undergraduate final project author    : Filza Nabila Putri Latjare

Student ID number                     : 016201900141

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Cikarang, 8 January 2023

**Fahlesa Munabari, Ph.D.**

Turnitin Report

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CYBER SECURITY THREATS: RANSOMWARE ATTACKS IN SINGAPORE (2020-2021) UNDERGRADUATE THESIS Submitted as one of the requirements to obtain Sarjana Sosial By: FILZA NABILA PUTRI LATJARE 016201900141 FACULTY OF HUMANITIES INTERNATIONAL RELATIONS STUDY PROGRAM CIKARANG FEBRUARY, 2023 1 FINAL PROJECT ADVISOR RECOMMENDATION LETTER This final project entitled "Cyber Security Threats: Ransomware

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**Abstrak**

Serangan ransomware adalah salah satu jenis kejahatan dunia maya yang telah menyebar ke seluruh dunia. Ransomware adalah jenis perangkat lunak berbahaya yang mengenkripsi file pada perangkat, mengunci data terenkripsi penting milik korban atau organisasi sehingga mereka tidak dapat mengakses atau membuka file, dan meminta korban untuk membayar uang tebusan dalam mata uang tertentu dengan crypto untuk memulihkan file. Serangan ransomware ini adalah jenis aktor non-negara, yaitu peretas topi hitam, yang disebut aktivisme online dan anonim, peretas topi hitam ini adalah seseorang yang memiliki bakat dan menggunakannya untuk keuntungan pribadi secara politik dan ekonomi. Penjahat serangan ransomware ini berhasil membuat korbannya membayar untuk memulihkan file daripada melaporkannya, termasuk di Singapura. Singapura menduduki peringkat ke-6 dengan bayaran tertinggi pada tahun 2021. Penelitian ini menggunakan konsep keamanan nasional, keamanan nasional merupakan upaya yang dilakukan oleh suatu negara dalam mempertahankan negaranya dari ancaman. Tujuan dari penelitian ini adalah untuk melihat dampak serangan ransomware terhadap perekonomian Singapura, dan memang benar serangan ini berdampak terhadap perekonomian Singapura. Perbandingan kerugian ekonomi Singapura pada tahun 2020 dan 2021, teori ini menggunakan konsep Nasional Security dalam kerangka penelitian teoretis, konsep ini membantu penulis dalam melihat bagaimana Singapur bertindak pada menanggapi serangan siber ini.

*Kata Kunci :* *Keamanan Siber, Serangan Ransomware, Ekonomi, National Security*

**Abstract**

Ransomware attacks are a type of cybercrime that has spread throughout the world. Ransomware is a type of malicious software that encrypts files on a device, locks the victim's or organization's important encrypted data so that they cannot access or open the file, and requires the victim to pay a ransom in a specific currency with crypto to recover the file. This ransomware attack is a type of non-state actor, i.e., black hat hacker, which is called online and anonymous activism, this black hat hacker is someone who has talent and uses it for personal gain politically and economically. The criminals of this ransomware attack managed to get their victims to pay to recover the files rather than reporting them, including in Singapore. Singapore is ranked as the 6th highest paid in 2021. This study using a National security concept, national security is an effort made by a country in defending its country

from threats. The purpose of this research is to look at the impact of ransomware attacks on the Singapore economy, and it is true that this attack has a huge impact on the Singapore economy. A comparison of Singapore's economic losses in 2020 and 2021 is shown, using the concept of national security in a theoretical research framework. This helps the authors examine Singapore's response to this cybercrime attack.

**Acknowledgement**

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For all the people I mentioned here, I would like to sincerely and deeply thank all of you for the radiant love and positive energy you have given me, until whenever I will never forget you and let's meet on the next agenda HUGSS.

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