UNIVERSITI TEKNOLOGI MARA

E-VOTING SYSTEM WITH PHYSICAL VERIFICATION USING OTP ALGORITHM

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ABSTRACT

Voting process is a crucial aspect in a democracy environment whether in university, company or on a bigger scale, government. It is to choose a leader among candidates to manage a corporation fairly. But voting process itself is costly and require a large group of people gather in a venue to vote. Therefore, this project is intended to use a secure physical verification in the form of One Time Password (OTP) as a secure and reliable voting option for voters. The easy to use interface help the user to use the system to vote. The objective of this project is to make an easy to use online voting system that is centralized and easy to managed. It also has to be safe from attacker and intruders.

Keywords: online voting, ballot, vote, One Time Password (OTP), physical verification

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CHAPTER 1

INTRODUCTION

Chapter one come out with project is going to establish. This project starts with project background, define the problem statement, composing objectives, scope of the project and the significant of the project.

1.1 Project Background

Election is a formal and organized choice by vote of a person to choose a leader. In democratic countries, general election happens in a certain period of time. Since it is involving the future of a country or in a small scale, an organization, security is the biggest concern as it can cause panic among public and voters. Recently, covid-19 novel virus has spread to almost 56 million individuals around the world. With the recommendations by experts from WHO, which include social distancing and wears mask, physical election will be one of the most challenging for a country to make sure citizens can continue fulfill their responsibilities and also take care of their health. Thus, online based election became the main focal because of its usage in this virus riddled era and its difficulty to manage.

Electronic voting has been a topic of active debate, with most people believe that electronic voting is not as secure as conventional voting system for big scale election due to the integrity and reliability of the machine and the votes cast by them. On the other hand, e-voting can increase the participation of voters, especially young and first voters towards electoral process (Stoica & Ghilic-Micu. 2016). Remote electronic voting can be divided into 3 main classes: kiosk voting, poll station internet voting and remote internet voting. Kiosk voting model required voting machines to be placed in a polling stations and public location that can be accessed by voters in their daily life (markets, gas stations, malls etc). This