UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

MATHEMATICAL MODEL FOR ESTIMATION INFECTIOUS DISEEASE SPREADING: DENGUE

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IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

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TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF TABLES

ABSTRACT

Dengue fever is the epidemic disease that Aedes mosquito bites transferred to humans. There are four types of viruses that are DEN1, DEN2, DEN3, and DEN4. There is a certain state in Malaysia that records the largest level of Dengue fever. Every year, cases of Dengue record the rate of disease that has infected many individuals. In reality, because of this virus, there are individuals who are infected are dead. Many efforts shown by government and NGO to resolve Dengue cases, but it still documents so many cases. The spread of Dengue fever is caused by vector bite, so it is really hard to overcome the spread of that disease. Therefore, this study is undertaken to demonstrate the estimation rate of spreading Dengue by using distinct value of β and informing the medical organization so that they can do an intervention to prevent the illness from dramatically improving. There is a mathematical model to calculate the prediction of disease spreading. But individuals are still arguing that it is the mathematical model that can predict the spread of the disease. Mathematical model is an abstract model that utilizes mathematical language to define the behavioral system.