UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

PERPETRATORS PROFILING BASED ON VICTIMS ATRIBUTES USING LOGISTIC REGRESSION MODEL

P14M19

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Bachelor of Science (Hons.) Management Mathematics
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Report submitted in partial fulfilment of the requirement for the degree of Bachelor of Science (Hons.) Management Mathematics Faculty of Computer and Mathematical Sciences

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ABSTRACT

Nowadays people always read about criminal such as raping, killing, robbery and others especially among people who are have relationship with offender. Murder or rape is one of common criminal that people often heard in news because these numbers of cases are increase every day. In order to solve the crime, forensic department and police will cope together. Additionally, there is a lack of research about victims and offender relationship when it comes to solving the crime and not all mathematical method can give the absolute answer to calculate the perpetrators profiling. The objectives of this research are to calculate the probability of relationship between victims and offender of the murder cases using Logistic Regression Model and to the determined whether the model is suitable to be used to analyze the data. In this research, there are two types of logistic regression that are use which are binomial and multinomial. For the binomial, there are two categories of dependent variable only and four categories of dependent variables for multinomial regression. The result from shows that the R^2 the model is less than 60 percent. Even though the R^2 is not significant but there are a few tests that are significant such as Omnibus and Wald test. Therefore, this method is still valid to use to analyse the data set. For the recommendation data can be analyze by using other model such as Association Rule Mining (ARM) because ARM is one of the models that can show the relationship between data items and large data set in various type of database.