

UNIVERSITI TEKNOLOGI MARA

**RAINFALL-INDUCED LANDSLIDE PREDICTION
USING BACKPROPAGATION NEURAL NETWORK**

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**BSc (HONS) INTELLIGENT SYSTEM
FACULTY OF INFORMATION TECHNOLOGY AND QUANTITATIVE
SCIENCE**

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**RAINFALL INDUCED LANDSLIDE PREDICTION USING
BACKPROPAGATION NEURAL NETWORK TECHNIQUE**


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Approved by:


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Pn. Siti Arpah Ahmad

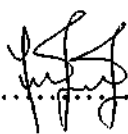
Project Supervisor

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DECLARATION

Here is to declare that I am responsible for the work submitted in this project with all the word, facts and relevant printed material are fully under my own except several finding as specified in the references that each of their sources has been stated.

December 1st, 2006


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With the name of Allah the most Gracious, the most Merciful creator,
I seek His Blessing on His Prophet Muhammad s.a.w

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ABSTRACT

This research project is about landslide prediction using back propagation neural network. The objectives of the research project are to identify rainfall variable that is used for landslide prediction, apply the back propagation neural network model to classify the risks of landslide and determine whether Back propagation Neural Network can be used as one of prediction tools. A simple three-layer neural network with six input nodes and three output nodes is employed to learn the data. Experiments are performed to determine the optimal learning. The total accuracy of prediction rate is 88.7 %. This research reveals that with a few improvements, back propagation neural network is able to be used in the prediction.