INVESTIGATION OF THE SENSITIVITY OF ELECTROMAGNETIC VIBRATION SENSOR

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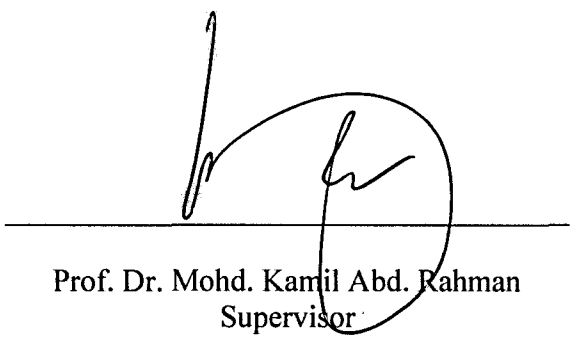
This Final Year Project entitled "**Investigation of the Sensitivity of Electromagnetic Vibration Sensor**" was submitted by Nor Adira Binti Mohd Jamil, in partial fulfilment of the requirements for the Bachelor Science (Honours) Physics, in the Faculty of Applied Sciences, and was approved by



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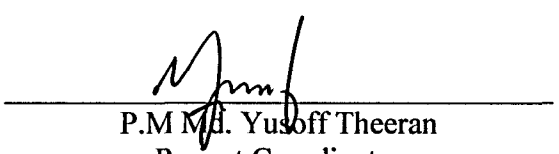

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ABSTRACT

An electromagnetic vibration sensor should be very sensitive in order to detect a ground vibration and could damp as close as to critical damping to differentiate between two consecutive vibrations. In this thesis I firstly investigate about the vibration theory of electromagnetic vibration sensor and study about its sensitivity parameter, I also design a damping system for viscous damping by using a bigger area of plate oscillates in high viscosity of liquid which is glycerine and assemble the damping system with serial spring arrangement to increase its sensitivity. I learnt that, the designing of the damping system and the spring arrangement would lead to a high sensisitvity of a seismometer