

**MAGNETIC FIELD INTERFERENCE ON COMPUTER
CAUSED BY THREE PHASE TRANSMISSION LINES**

**This thesis is presented in partial fulfilment for the award of the
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ABSTRACT

Cabling structure design has been one of many aspects which has been taken with great care. A great deal of security precautions taken as to the placement of cables in big buildings which uses high voltage of electricity. Cabling structure has always been designed to fit in ceilings, at roofs or in hidden places. With such a design, magnetic field interference do exist for electrical equipments. In real, the Kuala Lumpur Stock Exchange (KLSE) is facing this difficulty whereby cable carrying current weight of 2KA is fixed at the ceiling of the computer room. Enormous Magnetic Field Interference causes the monitor displays to shake and blink. This actual phenomena brings about to the conduct of this entire project.

The main objective is to experiment grounding effect and orientation. Details of experiment is explained deeply in the following chapters. Results are carefully tabulated and portrayed with 3D graphs plotted to show clearly how cabling design can affect the above phenomena which is still deemed to be a mystery.

It is hoped that a general relationship is obtained between the level of magnetic field and current and the severeness of the screen problem. To the next extent possible, a way out to the problem is sought.

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CHAPTER 1

1.0 INTRODUCTION

This project concentrates on the effects of power lines passing through a computer monitor. In actual practice, there are several types of interference causes and can be seen on the monitor screen. Normally, it is in the form of blinking screen, extremely bright (white) spot and to the extreme of prominent red spots.

1.1 Background : Problem

For Cabling structure design as in the Kuala Lumpur Stock Exchange (KLSE), whereby enormous Magnetic Field Interference causes monitor displays to shake and blink. This is caused by a heavy weight of current of 2KA in the cabling. This actual existence brings about to the conduct of the entire experiments.

1.2 Objective

It is intended to determine the best position for the computer monitor screen to be placed in the event of presence of the power lines crossing over the monitor. Prior to the determination, several preliminary works have to be which includes the best orientation for the magnetic field meter, effects of grounding connection and height of the power cables from the monitor.