

REDESIGN OF A FAULT INDICATOR UNIT

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Abstract

A redesign process of an existing fault indicator system is presented. This system is manufactured by Elektro-Mechanik GMBH (Germany) with Surface mounting Housing (outdoor). Synthesis and logical methods are introduced to achieve the target. The design process are to localize the system which make use of local material. A comparison of the results had been done between the logical and the original system.

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FAULT INDICATOR UNIT

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CHAPTER 1

1.0 INTRODUCTION

Malaysia is a developing country and targeted to be fully industrialized by the year 2020. This dream is being proposed by our Prime minister Dato' Sri Dr Mahathir Mohammed through the Vision 2020. Recently the Bakun Project is becoming a hot issue which is being discussed in public as far as electricity supply is concerned. Malaysia with the very encouraging economic growth requires more power supply in the next few years.

In a general power system that consists of generators, transformers, transmission and distribution circuits, it is inevitable that sooner or later some faults will occur somewhere in the system. When a fault occurs on any part of the system, it must be quickly detected , isolated and disconnected from the system.

Most of the faults on the power system lead to a short-circuit condition. When such a condition occurs, a heavy current (called short circuit current) flows through the equipment, causing considerable damage to the equipment and interruption service to the consumers. There is probably no other subject of greater importance to an electrical engineer than the question of determination of short