سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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سامية محمد مصطفى

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

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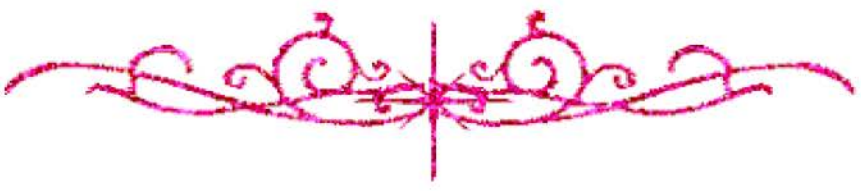
بعض الوثائق الأصلية تالفة



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بالرسالة صفحات لم ترد بالأصل

CAIRO UNIVERSITY
FACULTY OF ENGINEERING
Elec. Power & Machinces Dept.

EXAMPLES OF CO-ORDINATING ELECTIRCAL PROTECTION CIRCUITS AS APPLIED TO INDUSTRIAL ELECTRIC POWER DISTRIBUTION SYSTEMS

THESIS
SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS
FOR THE AWARD OF THE (M.Sc.) DEGREE
IN
(Elec. Power & Machinces)

BY
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Mohamed Hamdan

Summary

As continuity of supply is a very important item to any industrial scheme, this thesis presents examples for the design of electric protection circuits able to detect the kind of fault, and if necessary to disconnect only the faulty section as quickly as possible satisfying the specified protection requirements.

As illustrated in the following chapters, the final decision of selecting the proper fuse or relay for the protection circuit depeneds on studying the performance and behaviour of such elements.

Examples of testing the current - time characteristic of the fuses and relays are given in chapter 7, and the principle of the design of the negative sequence relays to detect the unrequired unbalance ratio in the 3-phase distribution circuits are shown in chapters 5,6, and 7, while chapters 4,5 and 6 present the analytical study concerning the main requirements which should be fulfilled to obtain the proper selection of the protecting circuit components with practical examples applied to the protection of cables and motor drive systems.

Concerning the different protecting circuits applied in this study, a good agreement between the analytical and experimental results has been found, insuring the validity of both the analytical and experimental work presented.

As an addendum the thesis could be divided into the following 3 main parts:

part I " General review" which contains chapters 1,2, and 3 as shown in page 4.

part II " Analytical study" which contains chapters 4,5, and 6 as shown in page4.

part III " achievement and conclusion" which contains chapters 7 and 8 as shown in page 4 .

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