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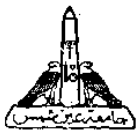

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A Thesis

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B. Sc., Electrical Engineering, M.T.C., 1970

M. Sc., Electrical Engineering, Comupters and Systems Engineering, Faculty of Engineering, Ain Shams University, 1994

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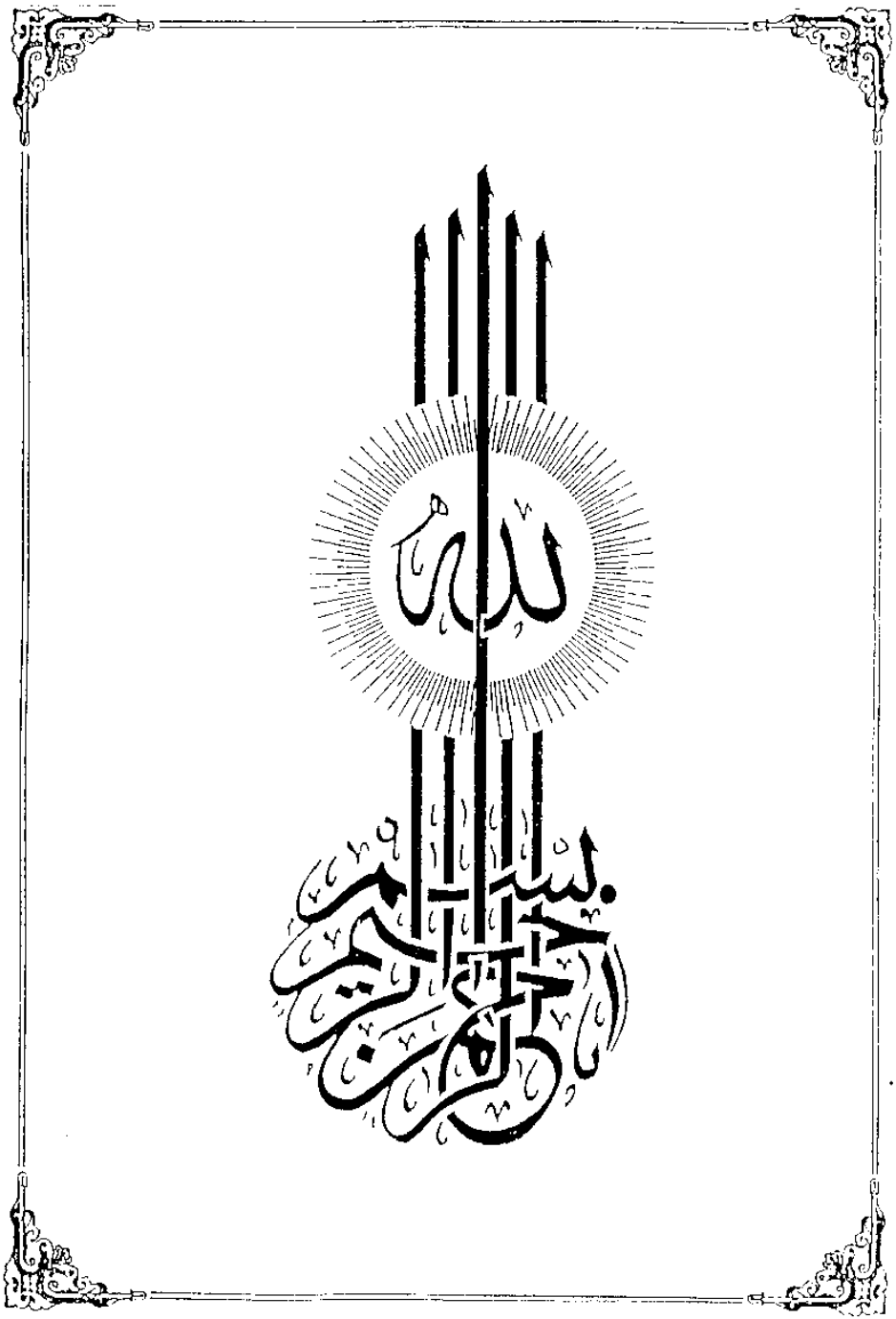

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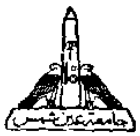

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بسم الله الرحمن الرحيم

Approval Sheet

The thesis on

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By

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In Fulfillment of

Ph. D. Degree in Electrical Engineering
Computers and Systems Engineering

Approved By

Title, Name, and Affiliation	*Signature*
1. **Professor Dr. M. A. Sheirah** Faculty of Engineering, Ain Shams University	
2. **Professor Dr. M. Fekry Mohamed** Faculty of Engineering, Cairo University	
3. **Professor Dr. O. A. Badr** Faculty of Engineering, Ain Shams University (Supervisor)	
4. **Professor Dr. N. M. El-Nady** Information Technology Institute (Supervisor)	

Date: 16 / 4 / **1996**

Statement

This thesis is submitted to Ain Shams University for the degree of Ph.D. in Electrical Engineering, Computers and Systems Engineering.

The work included in this thesis was carried out by the author in the Department of Computers and Systems Engineering, Faculty of Engineering, Ain Shams University, from 4/1994 : 4/1996.

No part of this thesis has been submitted for a degree or a qualification at any other University or Institute.

Date: 9/4/1996

Signature:

Name: Mohamed Abdel Kader Salem

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