شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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

يجب أن

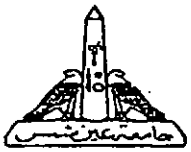
تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائق الاصلية تالفة

بالرسالة صفحات لم ترد بالاصل



Ain Shams University
Faculty of Engineering
Computer and Systems Engineering Department

INTELLIGENT TUTORING SYSTEMS FOR COMPUTER ENGINEERING

A Thesis
Submitted in partial fulfillment for the
requirments of the Degree of M.Sc. in
Electerical Engineering
(Computer and Systems Engineering)

By

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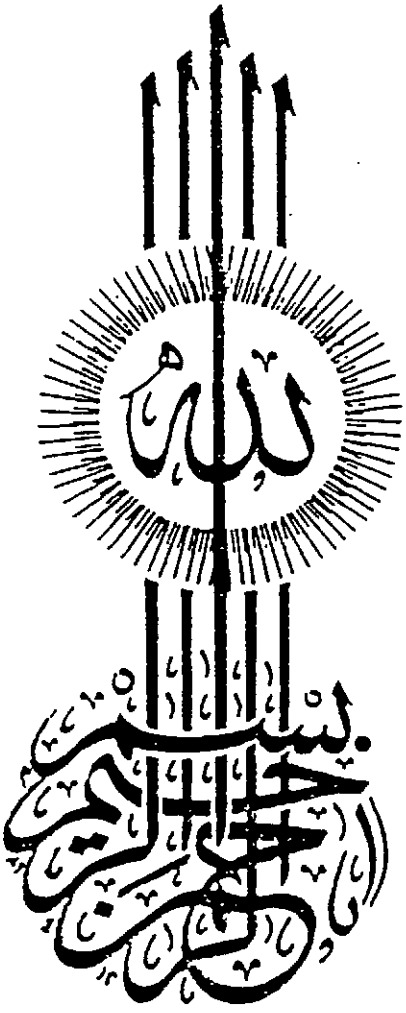
Cairo - 1996



وَقُل رَّبِّ زِدْنِي عِلْمًا

صدق الله العظيم

سورة طه

Examiners Committee

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Statement

This dissertation is submitted to Ain Shams University for the degree of Master of Sience in Electrical Engineering (Computer and Systems Engineering) .

The work included in this thesis was carried out by the author at the Informatic Research Dept. , Electronics Research Institute .

No part of this thesis has been submitted for a degree or qualification at other university or institution .

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Abstract of M.SC. thesis submitted by
Eng. Mona Hafez Mahmoud

Title of thesis : Intelligent Tutoring Systems for Computer Engineering

Supervisors : Prof. Dr. M. A. R. Ghonaimy
: Prof. Dr. Nadia Hamed Hegazy

Abstract : This thesis presents an Intelligent tutoring system for an introduction to the computer systems .
Basically the system consists of two modules :
1- The Explainer : that is intended to explain the concept interactively with the student and it is divided into :
a- Analyzer : which displays the information and the question to the student , receives student answer and analyzes it .
b- Matcher : which matches the output of the Analyzer with the correct answer and generates the response of the system .
2- The Checker : that is intended to display a group of questions, evaluate the student , define his problems and treat them . Also it records the behaviour of the student during his execution to the system in a student record . This module consists of three partitions :
a- Problem generator : it generates the questions by accessing the knowledge base and displays them to the student .
b- Solver : to get the solutions of the questions from the knowledge base .
c- Student model : to receive the student solutions , match them with the correct answers to evaluate the student , define his problems and treat them . Also the Student Model is domain independent because the questions is seperated from the program itself .
At end the student can take a complete report about what he has done during processing the system .
The system includes also a tutorial strategy that controls all the system components .
The Explainer contains three lessons :
1- Lesson #1 : Computer identification and its basic components .
2- Lesson #2 : Architecture of the computer system (Hardware) .
3- Lesson #3 : The Operating System .

The system contains also a knowledge base that contains the information that is explained to student , the questions that are generated and their solutions and the rules that manipulate this knowledge .

Also the system contains a group of graphic programs that draw the tree bath that the student takes during the execution of the system and some figures in front of him or to solve some examples graphically to assure the concept for him .

The system is implemented using two languages PROLOG and PASCAL .