Computer Science Department
Faculty of Computer and Information Sciences
Ain Shams University

Intelligent Technique for Computer Virus Detection

THESIS
Submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer and Information sciences

To the department of Computer Science, Faculty of Computer and Information Sciences, Ain Shams University.

BY
MOHAMED MABROUK MAWED MORSEY
B.Sc., Faculty of Computer and Information Sciences,
Ain Shams University.

SUPERVISED **B**Y

Prof. Dr. **MOSTAFA MAHMOUD SYIAM**
Former Vice Dean for Student Affairs, Faculty of Computer and Information Sciences, Ain Shams University.

Prof. Dr. **MOHAMED HASHEM**
Chairman of the Technical Research and Development Center, Air Defense Forces.

Dr. **SHYMAA ARAFAT**
Lecturer in Computer Science Department, Faculty of Computer and Information Sciences, Ain Shams University.

Cairo – 2006

Acknowledgments

Thanks are due to ALLAH for getting this work done.
I am very grateful for the encouragement of Professor M. Essam Khalifa our faculty dean. Many thanks are given to my Advisors, Professor Mostafa Syiam, Doctor Mohamed Hashem, and Doctor Syhmaa Arafat for their continuous support, and help in all fields of my life and research work. Many work of thesis weren't being done without their valuable comments that helped me to cut many huge technical problems. I want to specially thank Doctor Mohamed Hashem, and Doctor Syhmaa Arafat for their constant support, interest, and encouragement of my work. I learned too much from them and I hope to continue the co-operation with them in following research. In this acknowledgment I should highlight the continuous encouragement and support of Professor Said Ghoniemy. Many thanks are given to everyone who helped me to achieve this work.

List of Figures

List of Tables

Contents