بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــســـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

UTILIZATION OF CAD / DIGITAL ENVIRONMENTS IN VARIOUS SURVEYING & MAPPING PROBLEMS

By

Eng. WAEL SAMIR AHMED

A Thesis Submitted to the
Faculty of Engineering, Cairo University
In Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
In
Civil Engineering

Under Supervision of

Prof. Dr. M. SHAWKI EL-GHAZALI
Prof. of Surveying and Photogrammetry
Faculty of Engineering, Cairo University

Dr. MOHAMED M. TAHA
Associate Prof. of Surveying and Photo.
Faculty of Engineering, Cairo University

Dr. HASAN HANAFY
Assistant Prof. of Surveying and Photo.
Faculty of Engineering, Cairo University

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
June 1999

UTILIZATION OF CAD / DIGITAL ENVIRONMENTS IN VARIOUS SURVEYING & MAPPING PROBLEMS

By

Eng. WAEL SAMIR AHMED

A Thesis Submitted to the
Faculty of Engineering, Cairo University
In Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
In
Civil Engineering

Approved By the
Examining Committee:

Prof. Mohamed. Shawki El-Ghazali, Thesis Main Advisor

Prof. Yousef Ibrahim Abdel Aziz, Member

Prof. Adel Ahmed Hgag, Member

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
June 1999

ACKNOWLEDGMENT

I would like to express my greatest appreciation to Prof. Dr. M. Shawki. El-Ghazali for his support, encouragement and valuable comments.

Great appreciation also goes to Dr. Mohamed M. Taha for his guidance and encouragement. His ideas were the main motivation for development of this research. Thanks also go to Dr. Hasan Hanafi for his support and encouragement.

My special thanks to Prof. Dr. Youssef I. Abdel-Aziz for his advice and encouragement.

I would like to express deepest thanks and gratitude to Dr. Yasser Sherif El- Manadili for his great encouragement and support. His ideas and comments were a great help to accomplish this research.

Special thanks go to Dr. Safaa Eldin Moustafa for his encouragement and Valuable comments.

Finally, I wish to express my deepest gratitude to my mother, my father, and my wife for their encouragement and continuos support.

TABLE OF CONTENTS

LIST OF FIGURES