شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

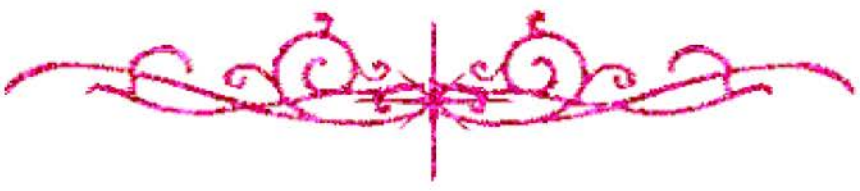
نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

شبكة المعلومات الجامعية

بعض الوثائق الأصلية تالفة



بالرسالة صفحات لم ترد بالأصل

INTERNET OF THINGS HARDWARE SECURITY

By

Amr Mohamed Abbas Dessouky

A Thesis Submitted to the
Faculty of Engineering at Cairo University
In Partial Fulfillment of the
Requirements for the Degree of

MASTER OF SCIENCE
In
Electronics and Communications Engineering

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Approved by the
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2021

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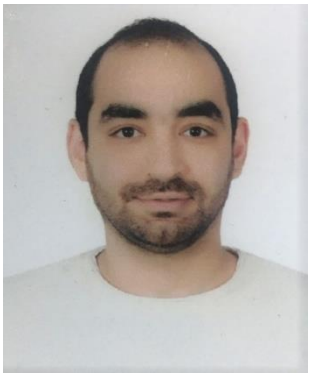

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Title of Thesis:

Internet of things hardware security.

Key Words:
Internet Of things, Partial Dynamic Reconfiguration, Authenticated Encryption with Associated Data, Field-programmable Gate Array, Application-Specific Integrated Circuit

Summary:
The objective of this thesis is to provide a low area low power optimized implementation for cryptography algorithms to match the power constraints imposed by the low power IoT applications. In this thesis low area and low power implementations of selected ciphers from the CAESAR candidates namely NORX, Tiaoxin, SILC, COLM, and JAMBU are provided. Moreover, Partial dynamic reconfiguration is used to achieve resource-efficient and energy-efficient hardware security.

Disclaimer

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.
I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name: Amr Mohamed Abbas Date: --/--/2021

Signature:

Acknowledgments

Alhamdulillah, all praises and gratitude to Allah, for all his blessings and support me with the strength and health to complete this thesis.

I would like to thank my academic supervisors Dr. Hassan Mustafa and Dr. Ahmed Nader for their guidance and help during the thesis work.

I would like as well to thank my managers and colleagues in Mentor Graphics for their support (Eman El-Mandouh, Haytham Shoukry, Nahla Mohamed, Khaled Nouh and Islam Osama).

Last but absolutely not least, I want to extend my deepest and most sincere gratitude and thanks to my family for their support throughout my study.

Table of Contents

LIST OF Tables

LIST OF Figures