



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية 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 %



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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل

B1.9Y.

SOLVING THE E-SIGNATURE NON-REPUDIATION PROBLEM

By

Hani Samuel Kirollos

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
COMPUTER ENGINEERING**

Faculty of Engineering, Cairo University
Giza, Egypt
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Supervised by

Prof. Dr. Ahmed Mahmoud Darwish
Minister of State for Administrative Development

Faculty of Engineering, Cairo University
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Hani Samuel
2/2007


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B.Sc. in Computer Engineering – Cairo University

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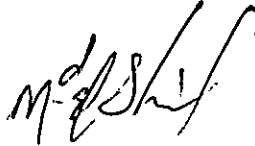
MASTER OF SCIENCE IN COMPUTER ENGINEERING

Approved by the Examining Committee:

_____  1/13

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Faculty of Engineering, Cairo University
Giza, Egypt
2006

SECRET BIOETHICS
HOW DO WE RE-ALIGN BOTH NON-REPRODUCTION AND
REPRODUCTION?

1. The first step is to identify the key ethical issues involved in the use of genetic engineering for non-reproductive purposes. This includes the potential for discrimination, the right to privacy, and the right to autonomy.

2. The second step is to develop a framework for evaluating the ethical implications of genetic engineering. This framework should take into account the potential benefits and risks of the technology, as well as the values and principles that underlie our society.

3. The third step is to implement the framework. This involves developing policies and regulations that govern the use of genetic engineering, and ensuring that these policies and regulations are enforced.

4. The fourth step is to monitor the use of genetic engineering. This involves tracking the progress of the technology, and identifying any potential problems or risks that may arise.

5. The fifth step is to evaluate the impact of genetic engineering. This involves assessing the social, economic, and environmental consequences of the technology, and determining whether the benefits outweigh the risks.

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ABSTRACT

Signature Creation Devices such as smart cards or tokens that comply with the European E-Signature Directive are vulnerable to Trojan Horses attacks through which an attacker can fraudulently create digital signatures utilizing the user's signature creation device when it is used on an infected computer. The current antivirus technologies cannot fully protect from polymorphic Trojan Horses that change their shapes frequently with time. Hence non-repudiation cannot be satisfied because the signor cannot ultimately protect himself.

Existing solutions in the prior art have various limitations, including device size, suitability for un-trusted computers such as Internet café computers and scalability with regards to the size of the data that can be reviewed and signed.

The solution presented is an adaptation to smart cards and smart tokens. It enables the user to detect any malicious activity, whether software-based or firmware-based, so that only what the user wants to sign gets signed. Additionally, the same adaptation components realize secure biometric authentication.

Also, a method for entering secrets securely to the smart card or smart token is presented.

