

**Universiti Teknologi MARA**

**Digital Signature System for Fakulti  
Sains Komputer & Matematik in UiTM  
Jasin using Public Key Cryptography**

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**Thesis submitted in fulfillment of the requirements  
for Bachelor of Information Technology (Hons)  
Information Systems Engineering  
Faculty of Computer and Mathematical Sciences**

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## **SUPERVISOR'S APPROVAL**

**DIGITAL SIGNATURE SYSTEM FOR FAKULTI SAINS KOMPUTER &  
MATEMATIK IN UiTM JASIN USING PUBLIC KEY CRYPTOGRAPHY**

By

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This report was prepared under the supervision of the project supervisor, Miss Zuhri Arafah Binti Zulkifli. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Information Technology (Hons) Information Systems Engineering.

Approved by

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Zuhri Arafah Binti Zulkifli  
Project Supervisor

JANUARY 31, 2016

## **STUDENT'S DECLARATION**

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ADIB MUHAIMIN BIN ABDULLAH

JANUARY 31, 2016

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## **ABSTRACT**

This research is about developing a system with the technique to acquire signature for Fakulti Sains Komputer & Matematik (FSKM) environment in UiTM Jasin. The problem statement for this research study is that the availability of the signer of documents, sometimes they are not available due to some irregularities and duty. This problem came as an opportunity toward this area of research and study, and to be added in the features are the help of some strengthening in security to secure the problem statement. The security will be enhance by the addition of public key cryptography, which is the technique that can provide integrity for the document, the authenticity and non-repudiation of the signer. The research aim is to develop a digital signature system that used the encryption technique. This aim is supported by four objectives that is to study the concept of digital signatures and public key cryptography, to gather and analyze the requirement in acquiring signatures in FSKM UiTM Jasin, to design the system and lastly is to develop the Digital Signature System using the public key cryptography technique. All four of the objectives above are supported by System Development Life Cycle methodology, it contain phases that are in motion with the objectives. The methodology helps in details about what are the activities that need to be done to get the deliverables that in the end of each phases, have to achieve the objectives of the project.