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CZECH TECHNICAL UNIVERSITY IN PRAGUE FACULTY OF INFORMATION TECHNOLOGY DEPARTMENT OF COMPUTER SYSTEMS



Bachelor's thesis

Timing Attack on the RSA Cipher

Martin Andrýsek

Supervisor: Ing. Jiří Buček

 $8 \mathrm{th}~\mathrm{May}~2017$

Acknowledgements THANKS (remove entirely in case you do not with to thank anyone)

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Klíčová slova Replace with comma-separated list of keywords in Czech.

Abstract

This thesis is focused on replication of timing attack on RSA cipher, which is done by measuring time of square and multiply algorithm. Implementation should be used for education purposes, mainly in security courses.

Keywords RSA, cipher, timming attack

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Introduction

CHAPTER 1

State-of-the-art

Chapter 2

Analysis and design

Chapter 3

Realisation

Conclusion

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APPENDIX **A**

Acronyms

 ${\bf GUI}$ Graphical user interface

XML Extensible markup language

 $_{\text{APPENDIX}}$ B

Contents of enclosed CD

r	readme.txt	the file with CD contents description
_ (exe	the directory with executables
:	src	the directory of source codes
	wbdcm	implementation sources
	thesisthe director	ory of LATEX source codes of the thesis
-	text	the thesis text directory
1	thesis.pdf	the thesis text in PDF format
	_	the thesis text in PS format