
University of Verona
Department of Computer Science
Laurea Magistrale Degree in Computer Science and Engineering

Automatic generation of self-adaptive TLM protocols from PSL assertions

Candidate
Florenc Demrozi

Supervisor
Graziano Pravadelli

Assistant Supervisor
Francesco Stefanni

Degree Session of 17 March 2016
Academic year 2015/2016

Abstract

Acknowledgements

Contents

| | |
|--------------------------------------|-----------|
| Acknowledgements | v |
| 1 Introduction | 1 |
| 1.1 Thesis Contribution | 1 |
| 1.2 Outline | 1 |
| 2 Related Works | 3 |
| 3 Background | 5 |
| 4 Motivations and Goals | 7 |
| 5 Self-adaptive TLM model | 9 |
| 6 Software Implementation | 11 |
| 7 Case Studies | 13 |
| 8 Conclusions and Future Work | 15 |
| Bibliography | 17 |

List of Figures

Introduction

Thesis Contribution

In this thesis, we have developed a methodology

Outline

The rest of the thesis is organized as follows: Chapter 2

Related Works

Background

Motivations and Goals

Chapter 5

Automatic generation of a self-adaptive TLM model

qui ci va la spiegazione del tuo lavoro

Chapter 6

Software Implementation of the proposed methodology

qui invece ci puoi mettere a livello implementativo il tuo lavoro

Case Studies

Conclusions and Future Work

This thesis proposes a methodology

Bibliography

Acronyms

| | |
|-------------|---------------------------------|
| CTL | Computation Tree Logic |
| EFSM | Extended Finite State Machine |
| LTL | Linear Temporal Logic |
| PSL | Property Specification Language |
| DUV | design under verification |
| RTL | register transfer level |
| TLM | Transaction Level Modelling |
| AT | Approximately Timed |
| LT | Loosely Timed |
| UT | Untimed TLM |
| CA | Cycle Accurate |
| M_{TLM}^I | TLM Initiator Model |
| M_{TLM}^T | TLM Target Model |
| M_{RTL}^T | RTL Target Model |