POLITECNICO DI MILANO

Facoltà di Ingegneria
Scuola di Ingegneria Civile, Ambientale e Territoriale
Dipartimento di Elettronica, Informazione e Bioingegneria

Corso di Laurea Magistrale in
Ingegneria per l'Ambiente e il Territorio

Un modello per tesi di laurea magistrale al DEIB

Relatore:

PROF. MATTEO MATTEUCCI

Correlatore:

DR. PAUL KRUGMAN

Tesi di Laurea Magistrale di:

GIOVANNI BERI
Matricola n. 852984

Anno Accademico 2016-2017

COLOPHON

This document was typeset using the typographical look-and-feel `classicthesis` developed by André Miede. The style was inspired by Robert Bringhurst's seminal book on typography "*The Elements of Typographic Style*". `classicthesis` is available for both LaTeX and LyX:

http://code.google.com/p/classicthesis/

Happy users of `classicthesis` usually send a real postcard to the author, a collection of postcards received so far is featured here:

http://postcards.miede.de/

The template has been adapted by Emanuele Mason, Andrea Cominola and Daniela Anghileri: *A template for master thesis at DEIB*, June 2015

Final Version as of February 23, 2018 (`classicthesis` version 1.0).

Here you can put your dedication, like:

To time, that do not go backwards

— A & D & E

ACKNOWLEDGMENTS

Here you can put acknowledgements to people that helped you during the thesis. Remember that helping students to write thesis is part of the job of some of them, and they're also paid for that. Please make sure to thank them for what they weren't supposed to do.

Remember also that this page is part of your thesis. I know that your boyfriend/girlfriend is very important to you and you cannot live without her/him, as it is for me. But there's no need to put her/his name here unless she/he gave a proper contribution to this work. Same goes for friends, parents, drinking buddies and so on.

CONTENTS

Abstract ix
Estratto xi
Preface xiii
1 BACKGROUND AND TOOLS 1
2 THE GRAPE PROJECT 3
3 THE ROBÌ PROJECT 5
4 GRAPE SOFTWARE ARCHITECURE 7
5 LOCALIZATION 9
6 KINOVA ARM 11
7 EXPERIMENTAL RESULTS 13

LIST OF FIGURES

LIST OF TABLES

LISTINGS

ACRONYMS

ABSTRACT

An abstract is a brief of a research article, thesis, review, conference proceeding or any in-depth analysis of a particular subject or discipline, and is often used to help the reader quickly ascertain the paper's purpose. When used, an abstract always appears at the beginning of a manuscript or typescript, acting as the point-of-entry for any given academic paper or patent application. Abstracting and indexing services for various academic disciplines are aimed at compiling a body of literature for that particular subject.

Max 2200 characters, spaces included.

SOMMARIO

Per abstract si intende il sommario di un documento, senza l'aggiunta di interpretazioni e valutazioni. L'abstract si limita a riassumere, in un determinato numero di parole, gli aspetti fondamentali del documento esaminato. Solitamente ha forma "indicativo-schematica"; presenta cioé notizie sulla struttura del testo e sul percorso elaborativo dell'autore.

Max 2200 caratteri compresi gli spazi.

ESTRATTO

"... il testo delle tesi redatte in lingua straniera dovrà essere introdotto da un ampio estratto in lingua italiana, che andrà collocato dopo l'abstract."

PREFACE

A preface is an introduction to a book or other literary work written by the work's author. A preface generally covers the story of how the book came into being, or how the idea for the book was developed.

MOTIVATION

Graduating is not the motivation that one expects here.

1

BACKGROUND AND TOOLS

Background and tools chapter

2

THE GRAPE PROJECT

The GRAPE project chapter

3

THE ROBÌ PROJECT

The Robì project chapter

4

GRAPE SOFTWARE ARCHITECURE

Grape sw architecture

5

LOCALIZATION

Localization Chapter

6

KINOVA ARM

Kinova Arm chapter

7

EXPERIMENTAL RESULTS

The experimental results chapter