



NATIONAL TECHNICAL UNIVERSITY OF ATHENS
SCHOOL OF ELECTRICAL & COMPUTER ENGINEERING

SECTOR OF SIGNALS, CONTROL & ROBOTICS

Object-Frame Impedance Control for Dexterous Robotic Grasping

DIPLOMA THESIS

by

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Athens, January 2013

Abstract

This English document is a translation track of the original Greek diploma thesis. The full English translation can be completed incrementally by editing the *_EN.tex chapter files.

TODO: translate abstract. You can reuse the existing English abstract text from diplomatiki_Abstract.tex (lines “Abstract” / “Key Words”) if desired.

Key Words

TODO: translate key words.

Acknowledgements

TODO: translate acknowledgements. This file is the English counterpart of diplomatiki_euxaristie

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Chapter 1

Introduction

TODO: translate Chapter 1. This chapter corresponds to kefalaio1_Eisagwgh.tex.

1.1 Robotics (overview)

TODO: translate this section.

Chapter 2

Dexterous Robotic Grasping: A Survey

TODO: translate Chapter 2. This chapter corresponds to kefalaiio2_Epideksia_Robotikh_Lavh.tex.

2.1 Problem decomposition

TODO: translate this section.

Chapter 3

Modeling & Control Background

TODO: translate Chapter 3. This chapter corresponds to `kefalaio3_Theoritiko_Ypovathro.tex`.

3.1 Hand modeling

TODO: translate this section.

Chapter 4

Implementation & Simulation Results

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4.1 Simulation environment

TODO: translate this section.

Chapter 5

Conclusions & Future Work

TODO: translate Chapter 5. This chapter corresponds to kefalaiο5_Symperasmata_Epektaseis.

5.1 Summary

TODO: translate this section.

Bibliography