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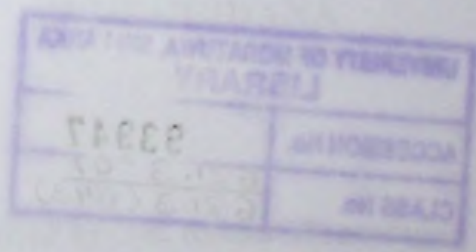
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Universal Dynamic Simulator for Robotic Manipulator: Dynamics Analysis and Software Development

Master of Science Thesis

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H.R.P.S. De Silva



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University of Moratuwa, Sri Lanka

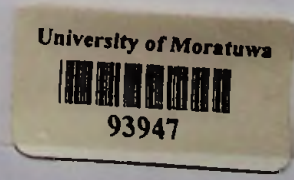
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November 2007

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**Universal Dynamic Simulator for Robotic Manipulator:
Dynamics Analysis and Software Development**

A dissertation submitted to the
Department of Electrical Engineering, University of Moratuwa
in partial fulfillment of the requirements for the
degree of Master of Science

by

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November 2007

DECLARATION

The work submitted in this dissertation is the result of my own Investigation, except where otherwise stated.

It has not already been accepted for any degree, and is also not being concurrently submitted for any other degree.

UOM Verified Signature

De Silva H.R.P.S.

Date: 19/11/2009

We/I endorse the declaration by the candidate.

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Abstract

A simulation has a very important role in robotics. This research project was focused to develop an efficient universal n link serial link manipulator simulator which can be interacted through graphical user interface with zero code environment using object orient language of Visual C++.

This simulator support to wide range of robotics manipulators and computes manipulator links motions under the influence of external forces and internal configuration with sufficient efficiency and allow user interaction.

Acknowledgments

It is a great pleasure for me to acknowledge the people who have helped and inspired me during my development.

I would like to begin by expressing my gratitude to my thesis supervisor and advisor, Dr.Rohan Munasinghe for his invaluable guidance and help during the course of my MSc. this research project. This work would not have been completed without his insights and open door policies.

I am particularly grateful to Lasantha and Banneheka for the many hours of discussion and assistance. The joint research was very important experience for me.

My thanks also go out to everyone who played a part in the development and testing which was used extensively in this report.

I would like to thank Nikolai Teofilov who developed the NT Graphics library.

I would also like to thank my parents and specially to my wife Sangeetha for their understanding and patience during the completion of this report.

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