



# **UNIVERSAL DYNAMIC SIMULATOR FOR ROBOTIC MANIPULATOR: DYNAMICS ANALYSIS AND SOFTWARE DEVELOPMENT**

Master of Science Thesis

H.R.P.S. De Silva

Department of Electrical Engineering  
University of Moratuwa, Sri Lanka

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93947



## 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.