

INTELLIGENT CONTROL OF ROBOTIC SYSTEM

MAJOR THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF

MASTER OF ENGINEERING

IN

CONTROL & INSTRUMENTATION

SUBMITTED BY

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2009**

CERTIFICATE

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ACKNOWLEDGEMENT

It is with a great sense of pleasure that I acknowledge the help and guidance we have received from numerous people during the course of my project. I would like to extend my sincere gratitude and sincere thanks to my beloved guide ***Prof. Madhusudan Singh and Asst. Prof. Bharat Bhushan*** for his assistance and invaluable guidance towards the progress of this thesis.

I am very thankful to **Prof. PARMOD KUMAR**, Head of the Electrical Engineering Department, for providing valuable comments and supporting my effort.

I thank all the teaching and non teaching staff members of the department who have contributed directly or indirectly in successful completion of my thesis work. I also avail this opportunity to thank all my friends for their continuous support and encouragement.

Finally, I would like to say that I am indebted to my parents for everything that they have given to me. I thank them for the sacrifices they made so that I could grow up in learning environment. They have always stood by me in everything I have done, providing constant support, encouragement and love.

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ABSTRACT

The problem of manipulator control is highly complex problem of controlling a system which is multi-input, multi-output, and non-linear and time variant. A number of different approaches presently followed for the control of manipulator vary from PI, PID And Fuzzy Logic Controller to very complex, intelligent, self-learning control algorithms.

This report presents a comparative study of simulated performance of some conventional controllers like the simple PI, PID controllers And Fuzzy Logic control,. IAE is used for comparison as performance index.

The study concludes that the PID controller in general performs better then PI controllers. When the unmodeled term is added to the model, PID and PI control perform badly. Computed torque control also affected but they do well. A Fuzzy Logic controller combines the advantage of PI And PID to achieve the goal of robot control Arm, performs better in PI And PID controllers and also shows that Fuzzy Logic controller are better even when unmodeled terms are added to the model.

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