

A Review on Control of Robotic Manipulator for Grading and Sorting of Rotational Symmetric

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Abstract

This paper presents a literature review on the common control systems that have been used for robotic manipulators with a very higher concern on PID and active force control (AFC). The control of manipulator is divided into two main systems, namely are linear and non-linear control systems. A nonlinear system is used to overcome un-modeled dynamics, variable payload, friction and disturbance torque, variation, and noise. PID controller has enhanced the performance of the manipulator in certain cases such as reducing system vibration and maintaining the tracking errors of the manipulator. On the other hand, AFC is a robust and much viable controller in comparison with others ordinary strategies in controlling dynamical systems such as robotic manipulator.

Keywords: Robotic Manipulator, Active Force Control, Robotic Gripper, Sorting and Grading