

Robust Control of a Parallel 3-RRR Robotic Manipulator via μ -Synthesis Method

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Abstract : Control of some mechanisms is hard because of their complex dynamic equations. If part of the complexity is resulting from uncertainties, an efficient way for solving that is robust control. By this way, the control procedure could be simple and fast and finally, a simple controller can be designed. One kind of these mechanisms is 3-RRR which is a parallel mechanism and has three revolute joints. This paper aims to robust control a 3-RRR planner mechanism and it presents that this could be used for other mechanisms. So, a significant problem in mechanisms control could be solved. The relevant diagrams are drawn and they show the correctness of control process.

Keywords : 3-RRR, dynamic equations, mechanisms control, structural uncertainty

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