SIMULATION AND CONTROL OF THE PARALLEL ROBOTS' DYNAMICS

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Abstract: This paper will deal with the virtual prototype of the parallel robots used for determination of the dynamics model that permit a decoupled control of robot actuators. This paper intends to present the possible virtual prototype of the parallel robots with the end-effector platform type. The virtual parallel robots are obtained by linking together the end-effectors of the serial robots which sustain the same platform. An interesting solution is in the case of the double platform when, the small motion of the joints allows us to stabilize the upper platform. Result a fine positioning device, which may be designed to use a decoupled control.

Key words: virtual prototype, direct and inverse dynamics, decupled control.

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