IC-019  AN ERROR REFERENCE PLANE OF AN ADAPTIVE CONTROLLER FOR A SCARA MANIPULATOR

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In this paper, we study and design an adaptive nonlinear mixed mode controller, focusing on a new reference plane. Its global asymptotic stability with respect to a nonlinear system: a SCARA robot, is theoretically and experimentally proved. The effectiveness of the proposed error reference planes is verified. Our state adaptation algorithm, modeled by using state errors, is able to change characteristics and configuration of each operating point. The experimental results elderly indicate the performance in fast tracking and covering zero of adaptive plane, derivative plane and integral plane.