

Informatika i sistemy upravleniya. – 2019. – No. 1(59). – P. 71-80.

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SIMULATION OF THE COMBINED ROBUST DECENTRALIZED CONTROL SYSTEM FOR TWO-LINK MANIPULATOR WITH INPUT SATURATION

The article deals with the problem of researching various performance modes of the robust-periodic control system for 2-DOF manipulator on the basis of simulation modeling. The distinctive features of the manipulator mathematical model are the saturations, caused by the design constraints of the control torques of actuating mechanisms (engines) degree of freedom. Computational experiments illustrate a sufficiently high quality of the system operation under various periodic modes of the manipulator performance.

Keywords: decentralized control, combined regulator, saturation, uncertainty, non-affine control plant, hyperstability criterion, L -dissipativity, filter-corrector.

DOI:10.22250/isu.2019.59.71-80

For citation:

Lelyanov B.N., Shelenok E.A. SIMULATION OF THE COMBINED ROBUST DECENTRALIZED CONTROL SYSTEM FOR TWO-LINK MANIPULATOR WITH INPUT SATURATION
// Informatika i sistemy upravleniya. – 2019. – No. 1(59). – P. 71-80.