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A MULTICONNECTED COMBINED SYSTEM FOR A FUNCTIONALLY PARAMETRIC INDEFINITE PLANT WITH NONAFFINITY AND CONTROL DELAY

The paper proposes a solution to the problem of synthesizing a multi-coupled combined control system for a non-affine plant with a delay in the input variable with gradually changing dynamics. The plant functions under conditions of a priori parametric and structural uncertainties in the presence of external interference when only the regulated variable is measured. The structure of a multiconnected control system includes an implicit reference model, a preceding-compensator and filter-correctors.

Keywords: multiconnected system, control delay, non-affine plant, hyperstability criterion, functional uncertainty, a priori parametric uncertainty.

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