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COMBINED NONLINEAR CONTROL SYSTEM WITH AN IMPLICIT REFERENCE FOR THE APRIORI UNDEFINED NON-AFFINE TWO-CHANNEL PLANT WITH DELAYS AT THE OUTPUT

The problem of combined output control of a two-channel non-affine plant with output delays subject to nonlinear cross-connections is considered in terms of structural and functional-parametric prior uncertainty. A method for constructing a combined controller that ensures the achievement of a specified control goal for a single class of two-channel non-affine plants is proposed while applying the hyperstability criterion, the passification method, and L-dissipativity conditions, as well as using implicit reference models and filter-correctors in the construction of the control system.

Keywords: two-channel non-affine control plant with nonlinear cross-connections and output delays, structural and functional-parametric prior uncertainty, implicit reference models, filter correctors, combined control system, hyperstability criterion, L-dissipativity conditions.

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