

Method for Designing of Adaptive Systems for the Control of Non-Stationary Objects

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Abstract: The paper solves the problem of system design for the object with delay, significantly changing its parameters. The problem is solved by numerical optimization, robustness is provided by the joint optimization of two objects with the extreme values of the parameters. It is also proposed partition of the set of possible values of the object parameters on subset followed by a design of robust regulators for each obtained subset. The method is explained by an example from practice. Numerical optimization implemented in VisSim simulation program.

Key Words: the design of regulators, adaptive control, numerical optimization, optimization criteria

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