The Experimental Setup for the Operation of Small Refrigerator Control System Research

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The article discusses a method and equipment for the small refrigerator control system experimental research. The research was performed with the purpose of developing precise automatic control systems. The work objective is to obtain transfer functions of the system components, to obtain the transfer function of the invariant controller and the controller implementation in the expansion component of the experimental setup: in the electronic expansion valve. The invariant control system perfectly copes with any kind of external influence and meets the most stringent requirements for a plant control. This article describes the designed experimental setup scheme, the methods and means of transition process research. It is supposed that the research results will allow to obtain techniques for designing and adjusting precise automatic control systems.

Keywords: *transition process, temperature control, invariant controller, automatic control system.*

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