

CYBER-PHYSICAL OBJECT TRACKING SYSTEM

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Abstract. There is a task being studied how to control a separate technological aggregate as a regulation object. Information connections between the technological aggregates functions and regulation algorithms are being studied, which are used in the cyber-physical object surveillance systems. There is a two closed loops scheme of electrical-mechanics of the following system given functioning as a mono-aggregate. The stabilizing closed loop is to regulate variables being controlled given with shift and day tasks. The control closed loop is to regulate linear, axis and executive positions of aggregate organs in its coordinates system. The control object is controlled with different regulators influence. The scheme feature is its control object adaptation to the regulating influences with changing in time parameters, which are being translated from the virtual environment to the aggregate with an industrial net. The regulator interface and the aggregate reference model placed in a cloud is done by the Internet of Things. The aggregate regulation is done with settings related to the technological parameters being controlled.

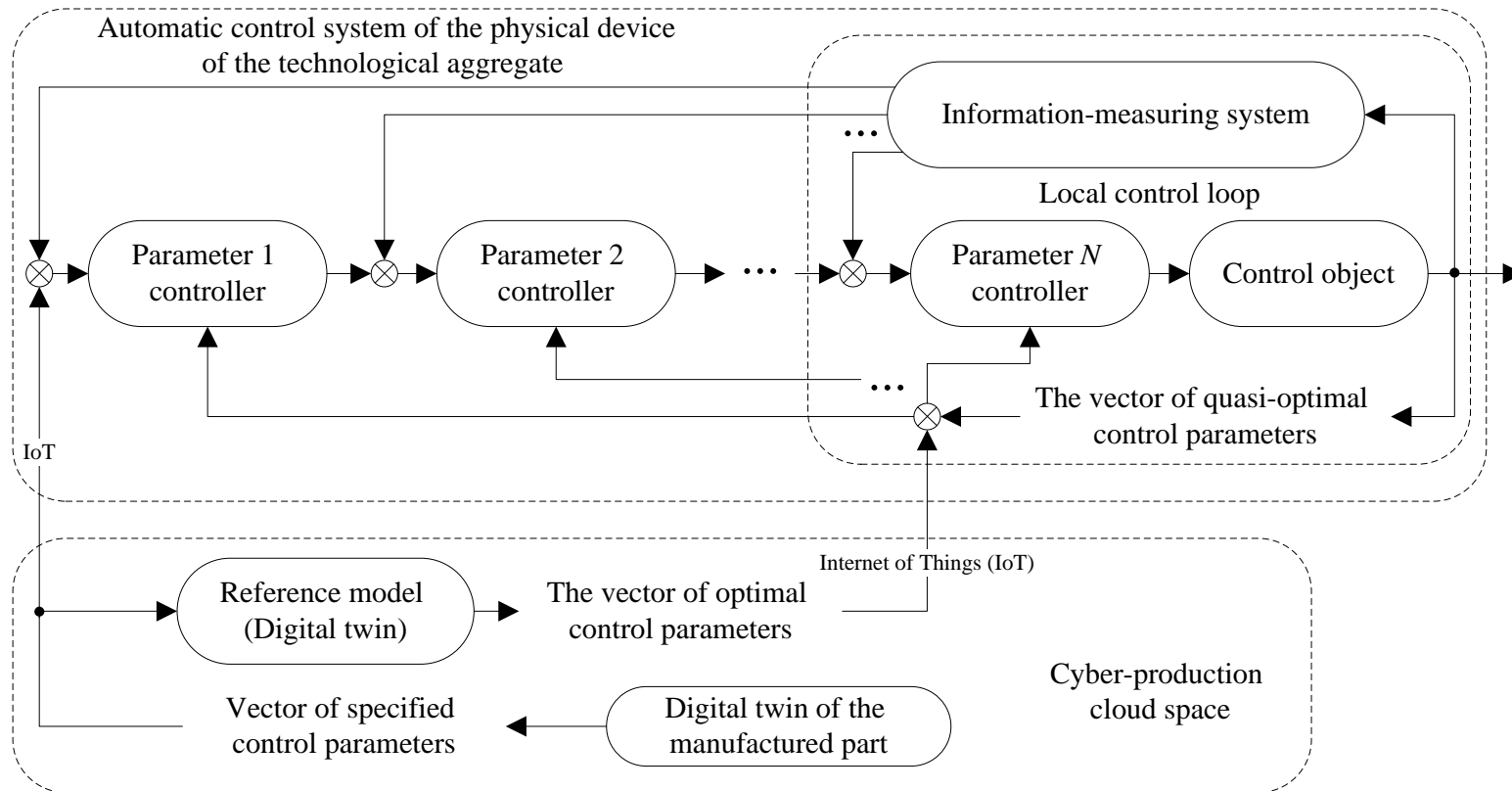


Figure 1. A generalized scheme of a multi-loop automatic control system for a technological aggregate.

