Abstract

Dependability is one of the control systems properties that characterizes their reliabilities and possesses in addition the following advantages: it characterizes sufficiently the reliability of the system, its variations with respect to time, it models the reliability of the system, its variations with respect to time, it determines the efficiency, the implementation and exploitation costs of the control systems. The nowadays methods applied to improve the control systems dependability ca be used during the conception and production phases. In this paper, we propose a theoretical approach for estimation that shows the contribution of an adaptive principle to improve the reliability of the control systems. Moreover we will prove how the certainty of the computed results of the good functioning probability of such control systems will depend on the fact that if we consider or not the adaptive control algorithms according to the state of the system and its prediction results.