New Method for the Systematic Determination of the Model's base of Time Varying Delay System

Volume 46 - Number 1

Year of Publication: 2012

Authors:
Saïda Bedoui
Majda Ltaief
Kamel Abderrahim

10.5120/6871-8967

Abstract

In this paper, we propose a new method for the systematic determination of the model's base of time varying delay system. This method is based on the construction of the classification data related to the considered system. The number, the orders, the time delay and the parameters of the local models are generated automatically without any knowledge about the full operating range of the process. The parametric identification of the local models is realized by a new recursive algorithm for on line identification of systems with unknown time delay. The proposed algorithm allows simultaneous estimation of time delay and parameters of discrete-time systems. The effectiveness of the new method has been illustrated through simulation.

References

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**Index Terms**

Computer Science

Control Systems

**Keywords**

Identification  Time Delay System  Models’ Base  Multimodel Approach