IDENTIFICATION OF THE NONLINEAR DECREASING SYSTEM, REPRESENTED BY VOLTERRA POLYNOMIAL WITH THE SEPARABLE KERNELS

D.I. Bashaleishvili

Ivane Javakhishvili Tbilisi State University
The Faculty of Applied Mathematics and Computer Sciences
2, University str., Tbilisi, 380043, Georgia

Abstract

The problem of identification of the nonlinear decreasing system, represented by Volterra polynomial with the separable kernels is set. The theorem of the uniqueness of the solution and the theorem with the help of which the problem of nonlinear identification of decreasing system is reduced to the problem of quasilinear identification with short initial data are proved. The set problem of "the black box" identification is solved on the basis of such a projective method's scheme which naturally leads to solution of the system of nonlinear algebraic equations by means of the computer.