

On the Existence of a Solution of One Class of the Two-Stage Optimal Control Problem with Time-Delay

Anamaria Meskhia

Ivane Javakhishvili Tbilisi State University, Faculty of Exact and Natural Sciences,
Department of Mathematics

Ilia Vekua Institute of Applied Mathematics

anamaria.meskhia211@ens.tsu.edu.ge

In the paper the nonlinear two-stage optimal control problem is considered with constant time-delay parameters in the phase coordinates, a discontinuous intermediate condition, and phase constraints. Theorems of existence of solutions are given. Under solution we imply the collection of time-delay parameters, the switching moment of the system's stages and controls.