

SUMMARY INFORMATION OF NEW RESULTS OF THE PH.D THESIS

Title: *Some control problems of the system of delay differential equations*

Speciality: *Applied Mathematics*

Speciality code: *9 46 01 12*

Ph. D student: Ta Thi Huyen Trang

Supervisors: Prof. Dr. Sc. Vu Ngoc Phat

Location: Institute of Mathematics, Vietnam Academy of Science and Technology.

New results in my Ph.D thesis

1. We provide sufficient conditions for designing output feedback controllers of the guaranteed cost control problem for a class of nonlinear control system with time-varying delays. Simultaneously, we also study the guaranteed cost control problem for the linear uncertain system with time-varying delays.
2. We provide sufficient conditions for designing output feedback controllers of the finite-time H_∞ control problem for a class of nonlinear systems with time-varying delays and disturbances via output feedback. An application to finite-time H_∞ control of linear uncertain systems with interval time-varying delays is given.

Supervisors

Ph. D student

Prof. Dr. Sc. Vu Ngoc Phat

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