Robust Control Theory

15:20 - 15:40
D-TE04-1
Robust and Non-fragile $H_{\infty}$ Output Feedback Controller Design
Cho Sang Hyun, Kim Ki Tae and Park Hong Bae (Kyungpook National University)

In this paper, we provide the synthesis of non-fragile $H_{\infty}$ output feedback controllers for linear systems with affine parameter uncertainties, and dynamic output feedback controller with structural uncertainty. The sufficient condition of controller existence, the design method of robust and non-fragile $H_{\infty}$ output feedback controller, and the region of controllers which satisfies non-fragility are presented. Also using some change of variables and Schur complements, the obtained condition to a compact set. We show that the resulting controller guarantees the asymptotic stability and disturbance attenuation of the closed...