

S.T.M. based predictable time-varying controller and estimator design

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Abstract

The concepts of time-varying state feedback under the desired closed-loop state transition matrix S.T.M. and estimator design are introduced in this paper. By introducing the estimation error concept (i.e. $e(t) = x - \hat{x}$) under the assumption that $e(t) \equiv 0$ (i.e. $x = \hat{x}$), the time-varying state feedback $F(t)$ and the estimator matrix L can be designed separately.

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