KYBERNETIKA — VOLUME *30* (1994), NUMBER 6, PAGES 617-628

Evaluation of the Reachability Subspace of General Form Polynomial Matrix Descriptions (PMDs)

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Abstract: We consider the concept of Reachability for systems described by PMDs, generalizing various known results from the theory of generalized state space systems using time domain analysis,which takes into account the finite and infinite pole-zero structure of the associated matrix. We extend also the theory of admissible initial conditions and we introduce the concept of Reachable subspace for PMDs providing a precise form for all future(reachable) states of our system.

Keywords:

AMS Subject Classification: