

Assigning the set of zeros in control systems with parallel compensation

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Abstract

The problem of ensuring a given set of zeros in a linear multivariable dynamical system with the equal number of inputs and outputs that includes a parallel compensator and feedback loop is considered. Methods reducing this problem to the control of eigenvalues of a certain matrix are proposed; the simultaneous assignment of poles and zeros is reduced to the control of poles of two plants using a single controller. The calculations are based on well-known and well-tested modal control techniques. © 2013 Pleiades Publishing, Ltd.

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