

## The Invariant Polynomial Assignment Problem for Linear Periodic Discrete-Time Systems

Leopoldo Jetto; Sauro Longhi

*Abstract:* This paper considers the problem of assigning the closed loop invariant polynomials of a feedback control system, where the plant is a linear, discrete-time, periodic system. By a matrix algebraic approach, necessary and sufficient conditions for problem solvability are established and a parameterization of all periodic output controllers assigning the desired invariant polynomials is given.

*Keywords:*

*AMS Subject Classification:*