Abstract

The design of accurate control becomes more difficult due to the complexity of industrial processes. In this paper, we are interested on the tracking of reference trajectories and the rejection of harmonic disturbances for discrete multi-input multi-output systems. A new control strategy based on the combination of partial state reference model control, internal model principle and Youla-Kucera parametrization for discrete multivariable systems is proposed. A numerical example shows that the proposed strategy gives a good performance in terms of rejecting harmonic disturbances and reference trajectories tracking.

References

Multivariable Q-parametrization for Rejection of Harmonic Disturbances


Index Terms

Computer Science

Control Systems

Keywords

Multivariable Control Systems  Rejection Of Harmonic Disturbances  Partial State
Reference Model Control
Internal Model Principle
Youla-kucera Parametrization