

Abstract :

This paper deals with an advanced control approach applied in dynamical systems. This approach is new Predictive Functional Control (PFC), which is belonging to the family of predictive control methodology, has been considered as one from the powerful algorithms to control industrial systems. The necessary aspects of Predictive Functional Control approach and the parameters to use the PFC controller are provided. To illustrate the effectiveness of the PFC, a comparative study of the control is done with a classic controller. The simulation results have shown the effectiveness of predictive algorithm compared to the classic controller, in terms of the speed of disturbance rejection and minimizing the error between the predicted output and the reference trajectory, considered very valuable.