

Highlights

Self-tunable approximated explicit MPC: Heat exchanger implementation and analysis

Lenka Galčíková, Petronela Belková, Juraj Oravec

- Self-tunable control technique does not need any intervention during control
- Tuning based on operating conditions compensates for the nonlinear plant behavior
- Implementation of the proposed tuning method on a laboratory heat exchanger
- Control performance improved compared to utilizing explicit MPC with constant setup