Abstract

The paper presents the process of the design of self-tuning regulator (STR) using pole assignment method in controlling electric oven. First, data of the oven including supplied power and temperature is acquired in order to find the model structure of the oven. On the basis of the obtained model, the parameters of the oven will be online identified. Afterward, these parameters will be used to design controller using pole assignment method. Thus, when the parameters of the oven change, the control parameters will change correspondingly so that the final performance is as desired. MATLAB, Simulink Real-Time Workshop are used to implement the controller in real time.

References


Index Terms

Computer Science

Control Systems

Keywords

System Identification, pole assignment, STR, Real time.