Control of an Industrial Machine 0.3 kW

An idling direct current motor loaded only by its own ventilator and bearing and brush friction is functioning as a technical controlled system. This establishes speed control in the first quadrant (active acceleration). Braking occurs passively via the ventilator and friction losses. In addition to the measurements, the process is simulated on the PC as well. A numerical optimisation of the controller is carried out in accordance with the ITAE criteria using the WinFACT LD Edition (734 491) software.

**Topics**

- Technical Controlled Systems
- Characteristic line for the drive engine
- Step response for an industrial machine
- Technical controller
- Controller tuning
- Determination of the controller parameters with PID Design Centre

Experiments are operated and evaluated with CASSY Lab 2 and WinFACT.