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TEMPERATURE FUZZY CONTROL USING VIRTUAL INSTRUMENTATION

BY

***L. MASTACAN, *I. OLAH and *C.C. DOSOFTEI**

Abstract. The paper presents a fuzzy logic controller used to control the temperature of an electrical heating battery. The fuzzy logic controller is implemented on an IBM-PC using virtual instrumentation in LabVIEW software from National Instruments. The temperature control is based on the use of a fuzzy algorithm in order to get the best performances: time response as short as possible, small overshoot and zero steady state error. The experimental results clearly emphasize the capabilities of the proposed method to realize the desired performances.

Keywords: Fuzzy logic, controller, virtual instrumentation, temperature control, performance.