Characterization of Soft-Magnetic Ring Cores

Description

A computerized measuring system for evaluating magnetic properties of soft-magnetic ring cores in compliance with the IEC60404-2 standard was developed for Iskra Sistemi (formerly Iskra SEM). Its main feature is a superior control loop based on a repetitive action control method which assures an accurate and stable secondary induced sinusoidal voltage waveform without voltage zero-crossing distortion caused by a large magnetizing current.

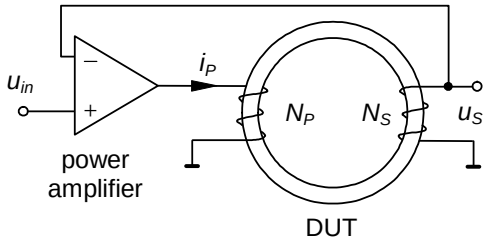

Fig. 1: Principle of the power amplifier-assisted measurement set-up.

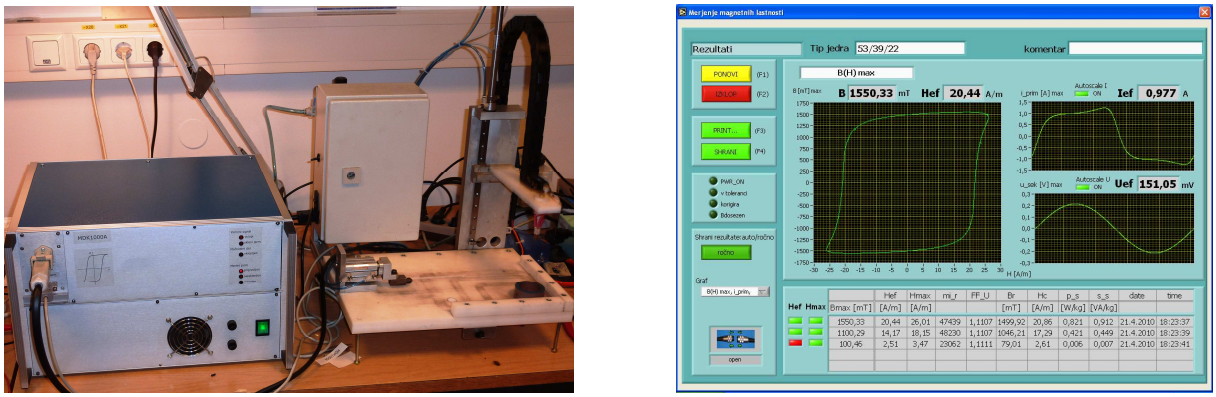

Fig. 2: Measurement system with a GUI snapshot.

Key Advantages/Skills

Linear power amplifier, repetitive control, digital signal processor

Publications

1. MODRIJAN, Gorazd, PETKOVŠEK, Marko, ZAJEC, Peter, VONČINA, Danijel. **Precision B-H analyser with low THD secondary induced voltage**. IEEE trans. ind. electron. (1982. Print). [Print ed.], Jan. 2008, vol. 55, issue 1, str. 364-370, ilustr., doi: 10.1109/TIE.2007.896475. [COBISS.SI-ID 6265940]

Contact: **marko.petkovsek@fe.uni-lj.si**

Phone: **+386 1 4768 862**

Laboratory *of Control Engineering and Power Electronics*

University *of Ljubljana*
Faculty *of Electrical Engineering*