



SUBJECT DATASHEET

Semester:	2010/11/2
Subject:	Electronics laboratory exercises
Code:	VEMKFIB231E
Responsible department:	Institute of Physics and Mechatronics
Responsible department code:	MKFI
Responsible lecturer:	dr. István Szalai

Educational objectives:

The main objectives of this course to provide practical knowledge in the field of electronics and electric circuits

Detailed content of the subject:

1. Measurement of basic electronic quantities. 2. Properties of passive electronic circuits and devices. 3. Diode and transistor characteristics. 4. Basic circuits of amplifiers. 5. Reference voltage circuits. 6. Properties and designing electronic voltage supplies. 7. Instrumental amplifiers and applications. 8. Temperature and pressure sensors. 9. Signal amplification of ionselective electrodes, data processing. 10. Conductivity sensors and temperature compensation. 11. AD and DA converters, PC applications. 12. Basic circuits of photodiodes and phototransistors. 13. Oscillators and basic properties. 14. Written exam

Requirements:

practical mark

Required and suggested references:

U. Tietze, Ch. Schenk: Analóg és digitális áramkörök, Műszaki Könyvkiadó, Budapest, 1998. P. Horowitz, W. Hill: The art of electronics, Cambridge University Press, Cambridge 1993. I.E. Shepherd: Műveleti erősítők, Műszaki könyvkiadó, Budapest, 1985.