UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2016/17/1
Course:	Machines of Fluid Mechanics and Thermodynamics (Lab.Pract.)
Code:	VEMKGEB131A
Responsible department:	Institute of Mechanical Engineering
Department code:	MKGEI
Responsible instructor:	dr. Pál Horváth

Course objectives:

To make the studentes aquainted with the machines of fluid technic. Measuring of characteristics some thermal apparatuses

Course content:

General knowledge about the measuring, the working conditions. Making the laboratory record. Rules of the work in the laboratory, electrical apparatuses, high pressure mediums (steam, compressed air) quickly rotating parts. Measuring of distribution of velocity of a gas running in cilindrical tube. Characteristic curve (P-V) of a fan. Examination of type of the flow. Coefficient of pipe friction. Characteristic curves of a centrifugal pump. Measuring of centrifugal pumps in series and in parallel. Characteristic curve of a metering orifice. Calibration of a metering elbow pipe. Indicating of a cilinder of a Whortington-pump. Calculation of hidraulic resistance of a heat changer with measuring on a model. Examination of a tube in tube type heat exchanger. Measuring the heat transfer coefficient with respect boiling. Data Acquisitionand Signal Conditioning. Measuring of the velocity of a tansient fluid running in cilindrical tube. Test paper. Supplying of measurement

Requirements, evaluation and grading:

The Student must take part on more than 80 % of the Lessons. During the semester will be 1 test on the 14-th week.

Required and recommended readings:

Baróti-Bálint.-Bordás-Pálma-Szalay-Veres-Zsiros: Gépek üzemtana laboratóriumi gyakorlatok, VE 1995.