



COURSE DATASHEET

Semester:	2014/15/2
Course:	Modern Process Control Technics
Code:	VEMKFOM154F
Responsible department:	Department of Process Engineering
Department code:	MKFO
Responsible instructor:	dr. Lajos Nagy

Course objectives:

To practice solving of algorithm level problems with synthesis of advanced chemical and control engineering principles.

Course content:

Function and position of control system in control of technologies Complex control systems and realisation of those Basic Control systems Advanced control systems Standards and recommendations of process control Control of typical unit operations: compressors, pumps, heating and cooling systems, reactors. Control of typical unit operations: distillation and other separation units Advanced process control systems. Communication of process control systems Configuring of process control systems Programing of process control systems Operator training systems (OTS) Relationship between control systems and management information systems. Introduction of some control systems (water heater, batch reactor, level control system, stb.). Midterm examinations

Requirements, evaluation and grading:

Grading is based on two midterm examinations. Each examination consists of 4 problems to be solved. The final mark is determined according to following table based on the weighted average of the points obtained for the midterm examinations. The weights of 1th and 2th midterm exams and home work are=0.4, 0.6, final mark above 80 excellent (5) 70-80 good (4) 60-70 medium (3) 50-60 pass (2) below 50 fail (1)

Required and recommended readings:

Moore-Herb: Understanding Distributed Process Control, ISA, NC, 1984. dr. Ajtonyi István, dr. Gyuricza István: Programozható irányítóberendezések, hálózatok és rendszerek Műszaki Könyvkiadó, Budapest, 2002 <http://www.pid.hu>