UNIVERSITY OF PANNONIA

SUBJECT DATASHEET

Semester: 2011/12/1

Subject: Advanced Algorithms in Process Engineering

Code: VEMKFOV132F

Responsible department: Department of Process Engineering

Responsible department code: MKFO

Responsible lecturer: Dr. János Abonyi

Educational objectives:

To teach the students to the details of advanced process engineering algorithms and their application.

Detailed content of the subject:

Typical problems in process engineering First-principle models in industry - Case studies Black-box models in process industry - case studies Hybrid models - case studies in process monitoring Optimization in the process industry - parametric optimization Optimization in the process industry - scheduling Practical issues in system identification Soft Sensors and state estimation Statistical process control Time-series analysis

Requirements:

Grading is based on one written midterm examinations and one written final examination. The final mark is determined according to following table based on the weigthed average of the points obtained for the midterm and the final written examination (midterm 30%, final 30% and for the assignment 40%): % final mark above 80 excellent (5) 70-79.99 good (4) 60-69.99 medium (3) 50-59.99 pass (2) below 50.99 fail (1)

Required and suggested references:

Cikkgyűjtemény a Moodle e-learning rendszerben.