Course title: Agent-based Computing

Internal code no: A-bC
Course type: lectures, project
Placement (recommended): 2 semester
Length: 1 semester
Program: MSc
Number of credit points: 4
Placement in timetable: summer semester 2
Hours per week: 2/0/0/1

Status of the Course in the study program: Elective

Objective:
The aim of the course is to introduce students to the basic issues involved in applying agent-based approach to solve problems in a distributed environment (i.e. grid and or the Internet).

Course description:
The following topics will be covered: introduction to parallel and distributed computing, architectures of distributed systems and their characteristics, basic methods of development and implementation of parallel and distributed algorithms, introduction to agent-based computing, application of agents to solution of problems in distributed environments.

Early in the semester students get acquainted with the agent environment (JADE) and design and implement methods to solve selected test problems. Through the remaining part of the semester students develop, implement and study efficiency of their own method to solve a realistic problem in a distributed environment.

Required prerequisites:
Java

Assessment method:
Homework assignments, class project (group) involving creation of a WWW site and a written report, student presentations (individual and group), final written assessment

Reference books:
WWW-based resources – for instance:
http://dsonline.computer.org/agents/index.htm
http://www.agentlink.org/
http://agents.umbc.edu/
http://sharon.cselt.it/projects/jade/

Responsible person:
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