

Multi-Agent Programming

– Syllabus –

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Objective

- To get a brief overview of the programming of multi-agent systems
- To understand the problems, the questions that are addressed in this domain
- To practice existing multi-agent technologies
- To acquire some skill in multi-agent oriented programming

- Existing models defining multi-agent oriented programming paradigm: Agent, Interaction, Environment, Organisation Models
- Existing programming languages and platforms supported by these models
- Special focuses on:
 - Multi-Agent Oriented Programming (MAOP)
 - Multi-Agent Based Simulation (MABS)

Timings

- September 16, 2016 (OB):
 - 8h00-10h00: Introduction, Multi-Agent Oriented Programming (MAOP), *JaCaMo* Platform [S. 120]
 - 10h00-12h00: Agent Models & MAOP/Programming Agents [S. 120 - 223]
- September 30, 2016 (OB):
 - 13h30-15h30: MAOP – Practical Work on *JaCaMo* [S. 221]
 - 15h45-17h45: Agents' Environment Models & MAOP/Programming Agents' Environments [S. 129 - 221]
- October 7, 2016 (FB, GP):
 - 13h30-15h30: Multi-Agent Based Simulation (MABS) [S. 120]
 - 15h45-17h45: MABS / Netlogo [S. 221]
- October 14, 2016 (OB):
 - 13h30-15h30: MAOP – Practical Work on *JaCaMo* [S. 221]
 - 15h45-17h45: Agents' Interaction Models & MAOP/Programming Agents' Interactions [S. 120 - 221]

Timings (Continued)

- October 21, 2016 (FB):
 - 13h30-15h30: MABS / Repast [S. 221]
 - 15h45-17h45: MABS / Repast [S. 221]
- November 15, 2016 (FB):
 - 13h30-15h30: MABS / Repast [S. 120 - 221]
 - 15h45-17h45: MABS / Repast [S. 221]
- November 25, 2016 (OB):
 - 13h30-15h30: Agents' Organisation Models & MAOP/Programming Agents' Organisation [S. 129 - 221]
 - 15h45-17h45: MAOP – Practical Work on *JaCaMo* [S. 221]
- December 2, 2016:
 - Used for project
- January 13, 2017:
 - **13h30-15h30: Project Defense** [S. 129]
 - **15h45-17h45: Written Exam / Evaluation of Theoretical Work.** [S. 129]

Grading Policy

- Practical Work (PW)
- Written Exam (WE)
- Grade = $(PW + WE)/2$