Multi-Agent Systems

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Ecole Nationale Supérieure des Mines SAINT-ETIENNE

Web Intelligence Master — 2011-2012

Objective

- Brief overview of the multi-agent systems research domain
- Understanding of the problems, the questions that are addressed in this domain
- Use of existing multi-agent technologies
- Acquire some skill in multi-agent oriented programming

Content

- Basic existing models grounding multi-agent oriented programming: Agent, Interaction, Environment, Organisation Models
- Existing programming languages and platforms supported by these models
- Special focus on *Self-Organisations* vs *Controled Coordination*

Timings

- 11/11/03:
  - 8h00-10h00: Introduction, Multi-Agent Programming, *JaCaMo*
  - 10h00-12h00: Agent Oriented Programming: Agents' models & *Jason*
- 11/11/10:
  - 8h00-10h00: Agent Oriented Programming: Practical Work on *JaCaMo*/*Jason*
  - 10h00-12h00: Distributed Problem Solving
- 11/11/17:
  - 8h00-10h00: Distributed Problem Solving: Practical Work
  - 10h00-12h00: Environnement Oriented Programming: Environments' models & CArtAgO

Timings (Continued)

- 11/11/24:
  - 8h00-10h00: Environnement Oriented Programming: Practical Work on *JaCaMo*/CArtAgO
  - 10h00-12h00: Organisation Oriented Programming: Organisations' models & $\mathcal{M}$OISE
- 11/12/01:
  - 8h00-10h00: Organisation Oriented Programming: Practical Work *JaCaMo*/$\mathcal{M}$OISE
  - 10h00-12h00: Interaction Oriented Programming: Interactions' models
- 11/12/08:
  - 8h00-10h00: Self-Organisation
  - 10h00-12h00 : Practical Work on Self-Organisation

Grading Policy

- Practical Works (PW)
- Grade = $(\sum_{i=1}^{i=n} PW_i)/n$