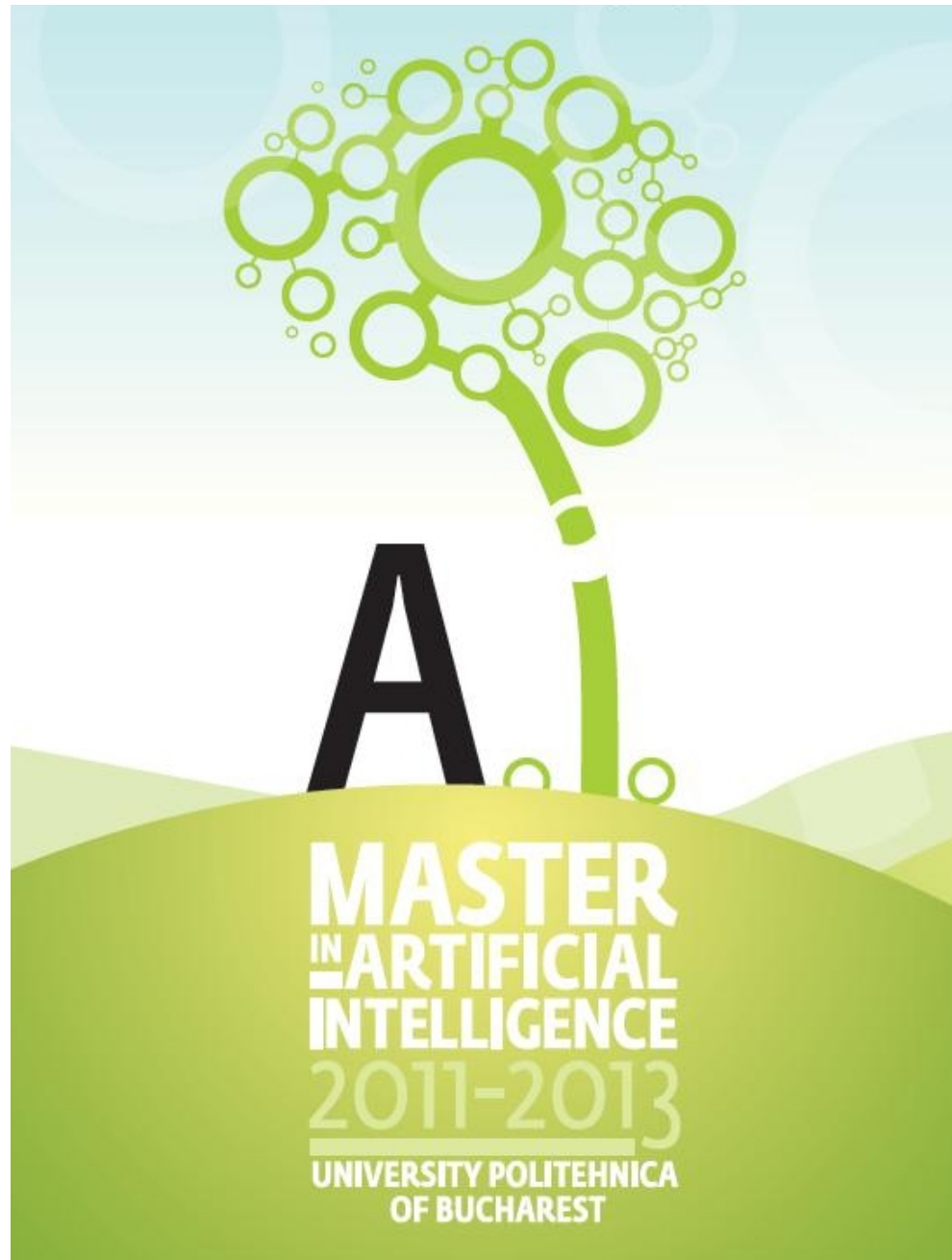


AI-MAS Group





Aim

- Theoretical and practical knowledge and skills in:
 - artificial intelligence
 - knowledge engineering
 - development of intelligent applications
- Trains specialists in
 - exponential growing technologies
 - for the global knowledge economy
 - capable of holding leading positions in academia, research or high-tech companies



Curriculum

Semester I

- Knowledge representation and reasoning
- Data mining
- Type systems and functional programming
- 1 elective; recommended:
 - Parallel programming (module SCPD)
 - Sisteme adaptive/colaborative (module ISI)

Semester II

- Multi-agent systems
- Natural language processing
- Symbolic and statistical learning
- 1 elective;



Curriculum

Semester III

- Self-organizing systems
- Neural networks
- Software verification and validation
- 1 elective

Semester IV

- **M.Sc. Thesis**



Professors (faculty)

- Adina Magda Florea
- Stefan Trausan- Matu
- Cristian Giumale
- Florin Radulescu
- Paul Cristea
- Lorina Negreanu
- Andrei Mogos
- Andrei Olaru
- Traian Rebedea
- Serban Radu
- Costin Chiru
- Cristian Gratie
- Invited professors



Research activity

- Research laboratories of the CS Department or UPB
 - Research projects / work in teams
- Companies in Romania
- EU partner universities – Erasmus programme



European cooperation

- Erasmus Mundus Data Mining and Knowledge Management

<http://www.em-dmkm.eu/>

The screenshot displays the website for the Erasmus Mundus Data Mining and Knowledge Management program. The page is titled "Erasmus Mundus Data Mining and Knowledge Management a European master" and features a navigation menu on the left with options like Overview, Description, and Coordinators and partners. The main content area is titled "Coordinators and partners" and lists the Coordinator, Jean-El, Professor of University of Lyon 2, France. Below this, the "Partners" section lists several institutions and their representatives, including Universitat Politècnica de Catalunya (Spain), Universitat Politècnica de Catalunya (Spain), and Universitatea Politehnica din București (Romania). The page also includes a search bar, a quick search box, and a footer with the Erasmus Mundus Alumni logo.



European cooperation

Erasmus exchanges

- École Nationale Supérieure des Mines de Saint-Étienne
- Utrecht University
- Université Pierre et Marie Curie - Paris 6
- École polytechnique de l'université de Nantes (Polytech Nantes)
- Universitat Politècnica de Catalunya
- Polytech'Montpellier
- Vrije Universiteit Amsterdam
- Åbo Akademi University
- University of Sevilla
- University of Madrid

Placements in companies

Other activities



AIM AS HIGH AS YOU CAN
DESCOPERĂ TEHNICILE DIN SPATELE CELOR MAI INOVATOARE APLICAȚII!
DEMO-URI DE ROBOȚI AUTONOMI, APLICAȚII ȘI GADGET-URI INTELIGENTE

ORGANIZATORI
AI-MAS Group

WORKSHOP
AI. ÎN VIAȚA
DE ZI CU ZI

AI-MAS
WINTER OLYMPICS
27/02/2010
FACULTATEA DE AUTOMATICĂ
ȘI CALCULATOARE, UPB

AI-MAS VILLAGE
APLICAȚII
INOVATOARE
ROBOȚI INTELIGENȚI
CRAFTING QUEST
CĂȘTIGĂ 1.000 EURO

EVENIMENT SUSȚINUT DE
RACAI
GMR 2
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UNIVERSITĂȚI PARTENERE
ULBS

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Other activities



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Research subjects



Research subjects

AI-MAS Laboratory

<http://aimas.cs.pub.ro/>

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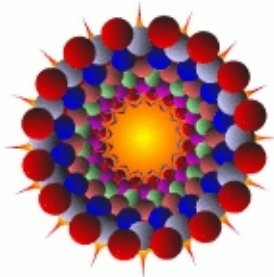
Events

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Links

Home



The Laboratory of Artificial Intelligence and Multi-Agent Systems has two research focuses. First, it is concerned with the development of models and architectures for both multi-agent and single agent systems endowed with artificial intelligent behaviour. We investigate issues related to coordination mechanisms, automated negotiation, agent learning, and affective agents.

A key aspect of the research is the development of technologies that enable agent models to be used in different areas of applications, such as e-commerce, e-learning, supply chain management, and ambient intelligence.

Recently, we have started to investigate issues related to self-organization of complex systems and how agents can contribute to the development of such systems.

The second research focus of AI-MAS laboratory is the connection between web services, semantic representation, and agents on the Web. We direct our efforts towards developing agents that offer semantic web services to support different aspects of business processing and enterprise interoperability.

The Laboratory of Artificial Intelligence and Multi-Agent Systems is part of the Department of Computer Science, Faculty of Control and Computers at University Politehnica of Bucharest. The AI-MAS Lab is directed by Professor [Adina Magda Florea](#).

News

[7th Workshop on Agents for Complex Systems](#)

(ACSys 2010)

September 23-26, 2010,
Timisoara.

[The 2nd International Workshop on Multi-Agent](#)

Highlights

[Master of Science in Artificial Intelligence](#)

[MASTS 2010](#)

[AI-MAS Brochure](#)

[AI-MAS Pictures](#)

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Research subjects

AI-MAS Laboratory

- Negotiation between humans and artificial agents
- Self-adaptive and self-organizing systems
- Games and normative behaviour
- A framework for daily activity recognition and emergency detection in smart environments
- The emergence of the leader in a group
- Swarms composition
- The Shapley Value and the welfare in a group



Research subjects

AI-MAS Laboratory

- Study of self-organizing multi-agent systems
- Graph pattern matching for context recognition
- Investigating the properties of abstract argumentation frameworks from a logical perspective
- A service for object tracking based on the Predator algorithm
- Arduino-based sound source localisation



Research subjects

AI-MAS Laboratory

- Argumentation in multi-agent systems in scenarios for ambient intelligence
- Semantic clustering of questions
- Artificial intelligence techniques in computer games
- Emotion simulation for artificial agents in role-playing games
- JaCaMo learning platform



Prof. dr. ing. CRISTIAN GIUMALE

- Specification and Interpretation of Ontological-Based Models for Time-Dependent Behavior

Conf. dr. ing. LORINA NEGREANU

- Directed model checking based on heuristics
- Error detection based on symbolic execution



Computer-Supported Collaborative Knowledge Construction (K-Teams) Laboratory

- Computing a 'Balanced' Measure of Textual Complexity
Joint work UPB (Romania) & UPMF (Grenoble, France)
- Automatic Analysis of Self-Explanations during Reading
Joint work UPB (Romania) & UPMF (Grenoble, France)
- Computer-Supported Group Creativity
- Identification of metaphors in texts
- Identification of sentiments in chat conversations



Computer-Supported Collaborative Knowledge Construction (K-Teams) Laboratory

- Music Enhancement
- Music Composition
- Personalized Music Retrieval
- Implicit Links Detection in Online Conversations
- Algorithms for Identifying Conversation Threads in Multiparty Online Discussions



Computer-Supported Collaborative Knowledge Construction (K-Teams) Laboratory

- Uncovering Plagiarism, Authorship, and Social Software Misuse
- Identification of Important Moments from the Human History
- Text Analysis for Picture/Movie Generation
- Analysis of the Way Different Concepts Appeared in Medical Publications



Data Mining themes

- Data mining personalized e-learning modules



**Prof. dr. ing. PAUL CRISTEA, S.I. dr. ing. BUJOR
PAVALOIU**

- Committee Machines. Adaptive Grouping.
- Cellular Neural Networks in Image Processing
- Spiking Neural Networks
- Concept Representation in a Social Network



- Simulator multi-agent pentru agenti in miscare (aer/sol/apa)
- Recunoasterea tintelor in miscare sau statice cu ajutorul camerelor video si evitarea coliziunilor
- Pilot automat adaptiv bazat pe o retea neurala
- Limbaje de comunicare multi-agent in mediu non-determinist
- Coordonare zborului in stol pentru atingerea obiectivelor de cautare si recuperare



- Scene categorization
- Generic Dominant Features extraction



**Romanian Association for
Artificial Intelligence**

Join us!