
Teaching and Research in Artificial Intelligence

Department of Informatics and Telecommunications

University of Athens

Athens, 21 March 2012



National and Kapodistrian
UNIVERSITY OF ATHENS

Presenter: Manolis Koubarakis

Outline



- Faculty
 - Teaching
 - Current research highlights
 - European projects
 - Possible collaborations with INRIA
-



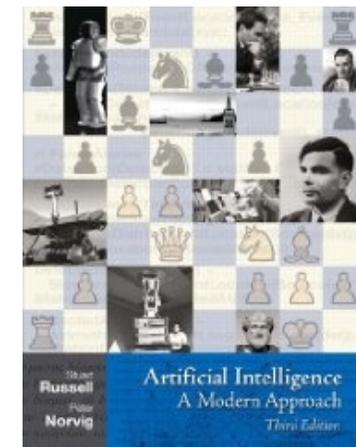
- **Izambo Karali** (Assistant Professor)
 - **knowledge representation, semantic web, logic programming**
 - **Manolis Koubarakis** (Professor)
 - **knowledge representation, semantic web, linked data, constraint satisfaction, databases**, distributed systems, information retrieval, requirements modeling
 - **Takis Stamatopoulos** (Assistant Professor)
 - **search, constraint satisfaction, operations research, logic programming**, knowledge representation, natural language processing, machine learning
 - Other faculty members also study/use AI techniques in their area (Hadjiefthymiades, Gunopulos, Manolakos, Achlioptas, Koutsoupas, Theodoridis)
-

Teaching - Undergraduate



National and Kapodistrian
UNIVERSITY OF ATHENS

- **Artificial Intelligence** (1st semester, 3rd year)
 - Topics: introduction, rational agents, search, constraint satisfaction, knowledge representation
- **Artificial Intelligence II** (2nd semester, 3rd year)
 - Topics: planning, advanced knowledge representation, ontologies, uncertainty, probabilistic reasoning, applications
- **Logic programming** (2nd semester, 3rd year)
 - Topics: Prolog, logic programming, constraint logic programming.





- **Advanced Artificial Intelligence**
 - Topics: planning, machine learning, natural language processing, constraint satisfaction
 - **Knowledge Technologies**
 - Topics: semantic web and linked data, RDF, SPARQL, description logics, OWL 2, rules, ontology engineering, applications.
-



- **Semantic web and linked data**

- Scalable management of linked data in P2P and cloud-based systems
 - Development of P2P system Atlas (<http://atlas.di.uoa.gr/>)
 - Applications: distributed digital libraries, web service registries
 - 2 recent Ph.D. theses
 - Zoi Kaoudi (currently at INRIA/LRI Leo team)
 - Iris Miliaraki (currently at MPI Saarbrücken)
-



- **Linked geospatial data**

- stRDF/stSPARQL: extensions of RDF and SPARQL with geospatial data that change over time
 - Development of system Strabon (<http://www.strabon.di.uoa.gr/>)
 - Applications: open government data, satellite image annotation, sensor web registries etc.
 - 2 Ph.D. theses (expected) and 4 M.Sc. theses (some completed)
-



- **Constraint satisfaction**

- Temporal and spatial constraints
 - Constraint logic programming
 - Constraint satisfaction for operations research problems
 - Development of the Naxos constraint solver (<http://cgi.di.uoa.gr/~pothitos/naxos/>)
 - 1 Ph.D. thesis (expected)
-