

Curriculum Vitae

Personal information

Surname / First name **Balta Eirini**
Address 7 Makedonomaxou Prandouna Str, PC 115 25, Athens, Attika, Greece
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Work experience

2010 – today Research Assistant
Cognitive Systems Research Institute

2006 – 2010 Research Assistant
Institute for Language and Speech Processing (ILSP) / R.C. "Athena"
Natural Language and Knowledge Extraction Department

2005 – 2007 Primary Education Teacher
Teacher of the mandatory course "New Technologies in Education", for children of all six-level classes in an All-day primary school

Research projects

2011 – today **"Poeticon++"**
Robots need Language: A computational mechanism for generalisation and generation of new behaviours in robots – Χρηματοδοτούμενο από το EC-FP7-ICT-2011-7

- Study of the relation between a typical lexicon and an embodied language lexicon
- Development of an application for the automatic extraction of embodied concepts from lexical resources
- Implementation of a method for assisting visual object recognition, using semantic criteria

2008 – 2010 **"Poeticon"**
The Poetics of Everyday Life: Grounding Resources and Mechanisms for Artificial Agents – Funded by the EC-FP7-ICT-2007-1
<http://www.poeticon.eu>

- Development of an information retrieval & knowledge extraction system
- Study of the multimedia relations between multimedia entities
- Semantic representation of meaning in multimedia messages
- Study of ontologies and knowledge databases
- Network application interface development

- 2009 – 2010 **"Image – Language Dialectics in Greek Caricatures"**
 Analysis of semantic relations in Greek caricatures – Funded by the Latsis Public Benefit Foundation
<http://www.cosmoroe.eu>
- Study of image and language semantic relations in caricatures
 - Search engine development
- 2006 – 2007 **"Sub4All"**
 Automatic Subtitling Technologies / "Image, Speech and Language Processing" Programme
<http://sifnos.ilsp.gr/Sub4All>
- Study and development of automatic translation systems and tools
 - Development of a system for automatic extraction of electronic multimedia dictionaries
 - Study and development of a system for automatic word sense disambiguation in multilingual content

Education

- 2003 – 2006 **MSc in Language Technology**
 Interdisciplinary – Interuniversity Postgraduate Course in Language Technologies
 School of Philosophy of the National and Kapodistrian University of Athens, Faculty of Philology, Department of Linguistics
 School of Electrical and Computer Engineering of the National Technical University of Athens, Division of Signals, Control and Robotics
 Institute for Language and Speech Processing (ILSP)
 Dissertation Thesis: *"Automatic Extraction of Bilingual Lexicons using Parallel Corpora and Lexical Transfer Selection Method for Word Sense Disambiguation"*
 Supervisor: Stelios Piperidis
 Thesis degree: "Excellent" - 10/10
 Diploma degree: "Excellent" - 9.68/10
- 1994 – 2002 **Diploma of Electrical and Computer Engineering**
 Polytechnic School of the University of Patras, Department of Electrical & Computer Engineering, Division of Telecommunications & Information Technology
 Dissertation Thesis: *"Study and Design of the Media Access Control sub-layer in Wireless Industrial Networks"* - Project IST R-Fieldbus (High Performance Wireless Fieldbus in Industrial Related Multimedia Environment)
 Supervisor: Prof. Stavros Koubias
 Thesis degree: "Excellent" - 10/10
 Diploma degree: "Very Good" - 6.92/10

Publications

- 2011 *Yiannis Aloimonos, Katerina Pastra, Cornelia Fermüller, Ching L. Teo, Eirini Balta, Aleksandrs Ecins, Hui Ji, Ajay Mishra, Austin Myers, Douglas Summers-Stay and Yezhou Yang (2011), "ROBOTS WITH LANGUAGE: A new framework for cognitive robotics", IEEE International Conference on Robotics and Automation (ICRA 2012) (submitted).*
- 2011 *Pastra K., Balta E., Dimitrakis P., Karakatsiotis G., "Embodied Language Processing: a new generation of language technology", in Proceedings of the AAAI 2011 International Workshop on "Language-Action Tools for Cognitive Artificial Agents: Integrating Vision, Action and Language", San Francisco, USA.*
- 2010 *Pastra K., Balta E., Dimitrakis P., Mpandavanou E. and Lada M. (2010), "Image-Language Dialectics in Greek Caricatures", Monograph, I. Latsis Foundation, Research Studies 2009 (in Greek),*
http://sifnos.ilsp.gr/COSMOROE/publications/pastra_latsis.pdf
- 2010 *Pastra K., Dimitrakis P., Balta E. and Karakatsiotis G. (2010), "PRAXICON and its language-related modules", in Proceedings of Companion Volume of the 6th Hellenic Conference on Artificial Intelligence (SETN), pp. 27-32, Athens, Greece,*
<http://sifnos.ilsp.gr/Poeticon/publications/SETN2010-Demo-Pastra.pdf>
- 2009 *Katerina Pastra and Eirini Balta (2009), "A Text-Based Search Interface for Multimedia Dialectics", In Proceedings of the Demonstrations Session at EACL 2009, April 2009, Athens, Greece, pp. 53-56,* <http://sifnos.ilsp.gr/Poeticon/publications/eacl09.pdf>
- 2005 *Stelios Piperidis, Panagiotis Dimitrakis, Irene Balta (2005), "Lexical transfer selection using annotated parallel corpora", In Fifth International Conference on Recent Advances in Natural Language Processing – RANLP 2005, September 2005, Borovets, Bulgaria, John Benjamins ed. pp. 227-236.*

Training

- 26 Jun.-16 Jul. 2011 2011 Neuromorphic Cognition Engineering Workshop
Member of the group CogRob studying and implementing a cognitive robot detecting objects using sound, language, and vision
<http://neuromorphs.net/nm/wiki/2011>
- 15-24 Mar. 2004 Certification in Knowledge and Data Mining
Semantic Web – Data Mining – Neural Networks – Document Analysis and Recognition – Colour Image Analysis
Institute of Informatics and Telecommunications, NCSR Demokritos
- 6-9 Jul. 2000 Participation in the 3rd International Conference for: "Greek Language as a second or foreign language: An intercultural approach"
Intercultural Education Centre, Department of Primary Education, University of Patras

Foreign Languages

- English Certificate of Proficiency in English (ECPE) - The University of Michigan
- German Zertifikat Deutsch als Fremdsprache - Goethe Institut
Gesamtnote: "Gut" (78.75/90 - 25/30)

Technical skills and competences

Programming languages: Java, C++, Prolog, Javascript

Server-side Programming languages: JSP

Client-side languages: HTML, CSS

Markup and Transformation languages: XML, XSL, XSLT, XPath, XQuery

Multimedia Design Tools: Adobe Flash CS3 Professional

Professional memberships

Member of the Technical Chamber of Greece

Member of the Association of Certified Mechanical - Electrical Engineers