

# **CURRICULUM VITAE**

**Emmanouil Marakakis**

**Professor**

**Department of Electrical and Computer Engineering**

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**Hellenic Mediterranean University**

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## Personal Information

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## Education

- *Doctor of Philosophy (PhD)*, June 1997, University of Bristol, Bristol, United Kingdom.
- *Master of Computer Science (M.Comp.Sc.)*, November 1984, Concordia University, Montreal, Canada.
- *Bachelor in Mathematics*, November 1979, University of Ioannina, Ioannina, Greece.

## Current Position

Professor of Informatics at the Department of Electrical and Computer Engineering, Hellenic Mediterranean University.

## Job History

- Professor of Informatics at the Department of Electrical and Computer Engineering, Hellenic Mediterranean University, from May 2019 up today.
- Professor of Informatics at the Informatics Engineering Department, TEI of Crete, from August 2013 up to April 2019.
- Sciences Department, TEI of Crete, from April 1989 up to July 2013. Initially as Assistant Professor of Informatics, next as Associate Professor of Informatics, and finally Professor of Informatics.
- Special Technical Scientist (Analyst – Programmer), Institute of Computer Sciences, Foundation for Research and Technology – Hellas (FORTH) from August 1986 up to January 1992.
- Teaching assistant, Concordia University, Montreal Canada, from September 1982 up to June 1984.

## Research Interests

*Artificial intelligence:* Logic programming, knowledge-based systems – expert systems, automated software engineering, natural language processing, semantic web, machine learning (statistical relational learning).

## Professional Experience

### *Research Experience*

- 1) Technological Educational Institute (TEI) of Crete, Estavromenos 714 10, Heraklion, Crete, Greece, April 1989 - April 2019.
  - **Project coordinator** in the research project «*Applications of Artificial Intelligence in Software Engineering and in Medicine*» of the program Archimidis II. *Project duration:* 1/5/2005 - 31/12/2007 (end of the project).
  - **Researcher** in the research project with title «*Application of the Environmental Decision Support System, Expert System, in the Ecosystems of Streams of Crete (Expert System Crete)*» of the research program Archimidis I. *Project duration:* 1/4/2004 – 30/6/2007 (end of the project).
2. University of Bristol, researcher at the Computer Science Department, The Merchant Venturers Building Woodland Road, Bristol BS8 1UB, England. I was on sabbatical leave from TEI of Crete and I was working on my PhD thesis. Project title: *Development of a new method for semiautomatic construction of logic programs*, academic year 1993 - 94.
3. Institute of Computer Science, Foundation for Research and Technology (FORTH) - Hellas, Science and Technology Park of Crete, Vasilika Vouton, P.O. Box 1385, Heraklion 71110, Crete, Greece, *full-time* from August 1986 until April 1989 and *part-time* from May 1989 until January 1992.
  - a) Researcher and project leader in the project LOKI of the ESPRIT I program of the European Union (EU).  
**Project title:** *A logic oriented approach to knowledge and data bases supporting natural user interaction.* *Period of work in the project:* August 1986 up to August 1988 (end of the project).
  - b) Researcher and project leader in the project DAIDA of the ESPRIT I program of the EU.  
**Project title:** *Development of advanced interactive data-intensive applications.* *Period of work in the project:* August 1986 up to may 1990 (end of the project).
  - c) Researcher in the project ITHACA of the ESPRIT II program of the EU.  
**Project title:** *Integrated Toolkit for Highly Advanced Computer Applications.* *Period of work in the project:* June 1990 up to January 1992.
4. Computer Science Department, Concordia University, 1455 De Maisonneuve blvd West, Montreal P.Q. H3G-1M3, Canada.
  - a) Research assistant 1982-1984. The research involved the **design and implementation of a system that generates answers in English text from the processing of SEQUEL (SQL) queries from a relational database.**

### *Teaching Experience*

1. Hellenic Mediterranean University, Estavromenos 714 10, Heraklion, Crete, Greece, May 2019 – today, Professor of Informatics at the Department of Electrical and Computer Engineering.
  - **Graduate courses:** I teach the course “*Advanced Topics in Artificial Intelligence*” in the graduate program “*Informatics Engineering*”.

- *Undergraduate courses:* I teach the following undergraduate courses at the department of Electrical and Computer Engineering in the specialization of *Telecommunications and Technology of Informatics*: a) *Logic Programming*, b) *Artificial Intelligence* and c) *Knowledge Systems*.
2. Technological Educational Institute (TEI) of Crete, Estavromenos 714 10, Heraklion, Crete, Greece, August 2013 – April 2019, Professor of Informatics at the Informatics Engineering Department.
- *Undergraduate courses:* I've taught the following *compulsory* undergraduate courses at the department of Informatics Engineering in the specialization of *Software Engineering*: a) *Logic Programming*, b) *Artificial Intelligence* and c) *Knowledge Systems*.
  - *Graduate courses:* I've taught from academic year 2012-13 up to academic year 2017-18 the graduate course “*Advanced Topics in Artificial Intelligence*” in the graduate program “*Informatics and Multimedia*” of the Informatics Engineering Department.
  - In addition, I've taught from the academic year 2018-19 up today in the graduate program “*Informatics Engineering*” of the Informatics Engineering Department the course “*Advanced Topics in Artificial Intelligence*”.
3. Technological Educational Institute (TEI) of Crete, Estavromenos 714 10, Heraklion, Crete, Greece, April 1989 - August 2013, Professor of Informatics at the Department of Sciences.
- I have taught undergraduate courses in the departments of Informatics Engineering, Electrical Engineering and Mechanical Engineering of TEI of Crete from February 1989 up to July 2013.
- Undergraduate courses that I have taught:***
- Compulsory***
- Programming II (Algorithms, Data Structures).
  - Programming I (Introduction to Computer Science, Programming in C).
  - Informatics (Introduction to Computer Science, Programming in C).
  - Introduction to Informatics (Programming in C).
- Elective***
- Artificial Intelligence - Expert Systems
- Optional***
- Prolog – Artificial Intelligence Applications.
  - Software Engineering.
  - Programming in Prolog.
  - Expert Systems.
4. Computer Science Department, Concordia University, 1455 De Maisonneuve blvd West, Montreal P.Q. H3G-1M3, Canada.
- Teaching assistant in 1983-1984. Teaching the undergraduate course «*Introduction to Computers and Computing*».
  - Teaching assistant in 1982-1984. Tutorials in undergraduate courses.

## **Activities in the Erasmus and Socrates/Erasmus Programs**

Participation in the Erasmus and in the Socrates/Erasmus programs from 1989 up to August 2013. My involvement in the Erasmus program included mainly cooperation with many universities of the European Union on educational issues. Specifically, my activities in the Erasmus

Interuniversity Cooperation programs included student exchanges and teaching visits for the teaching staff. My activities in Socrates/Erasmus program included mainly student exchanges. Many students have been moved to and from the TEI of Crete with my own initiatives through the Erasmus program from 1989 up to 2013. Other activities were the claiming of grants from the Erasmus office to visit universities of the European Union with specific educational goals such as curriculum development for the planned department in "Software Engineering" at TEI of Crete. Programs that I participated which they were funded by the Erasmus Program of EU are the following:

1. **Program Code ICP-G-2009/11.** Development of cooperation of TEI of Crete with 6 other universities of the European Union (EU) by creating an Interuniversity Cooperation Program (ICP) with code ICP-G-2009/11 on the subject of "Informatics - Computer Science". I was the coordinator of the ICP for the Sciences Department of the TEI of Crete for 4 academic years (1992-93 and from 1994-95 up to 1996-97).
2. **Program Code ICP-UK-1532/11.** Local coordinator of the ICP with code ICP-UK-1532/11 on the subject of "Informatics" for 4 academic years (1992-93 up to 1996-97). The coordination was done by the Faculty of Information Systems of Leeds Metropolitan University.
3. **Program Codes ICP-89-G-0040Δ και ICP-90-G-0022/11.** Local coordinator on the ICPs ICP-G-0040Δ and ICP-G-0022/11 on the subject of "Informatics - Information Technology" for the Sciences Department for the academic years 1989-90 and 1990-91 respectively. The coordination of the ICP was done by the Informatics Department of TEI of Athens.
4. **Program Code STV-90-G-3005/I: Erasmus – grants for visits of the academic staff of higher education institutions.** The grant was for visiting four universities in United Kingdom in order to develop an academic cooperation, i.e. an ICP, and to develop a curriculum for a new department on Software Engineering in TEI of Crete.
5. **Program Code STV-91-G-4002: Erasmus – grants for visits of the academic staff of higher education institutions.** Teaching visit to the department of Computer Studies of the University of the West of England. I gave a talk on «Software Engineering in Logic Programming» to the academic staff of the university and some intensive lectures on the course of "Artificial Intelligence and Expert Systems" of the Computer Studies department.

## Other Academic Activities

1. I participated in the development of a proposal for the establishment of a new department on "Applied Informatics and Multimedia" in TEI of Crete.
2. Development of a proposal for the establishment of a new department on "Software Engineering" in TEI of Crete. The proposal was approved from the Senate of TEI of Crete. It was processed to the Council of Technological Education and to the Ministry of Education for approval.
3. Academic coordinator of the training seminar "Office Automation of Small and Personal Companies" which was funded by the European Social Fund, September 1992 - December 1992.

## Administrative Activities

- Director of the research laboratory "Artificial Intelligence and Systems Engineering" (<https://aise.cs.hmu.gr/>) from March 2016 up to today and from its establishment as lab of "Artificial Intelligence and Software Engineering" in 2005 up to its renaming and its institutionalization in March 2016.

- Director of the Software Engineering Section of Informatics Engineering Department from September 2018 up to April 2019.
- President of the Informatics Engineering Department from September 2016 up to August 2018.
- Member of the Senate of TEI of Crete from September 2018 up to August 2018.
- Member of the Steering Committee of the postgraduate program "Information Technology and Multimedia" of the Department of Informatics from the academic year 2012-13 up to 2014-15.
- Chairman of the Advisory Committee of TEI of Crete, from 2014 up to April 2019, for the evaluation of courses of the departments of TEI of Crete in order to be able to issue certificates to their graduates about "basic knowledge of using computers".
- Academic officer for the computer labs of the former Sciences Department, after its abolishment, from August 2013 up to April 2019.
- Director of Computer Science Section of the Sciences Department of TEI of Crete in the academic years 1992-93, 2002-03, 2008-09, 2009-10, 2011-12 και 2012-13. Acting director of Computer Science Section of Sciences Department of TEI of Crete in the academic years 1990-91, 2005-06 and 2010-11.
- Academic representative of the Sciences Department for the Erasmus program from 1989 up to August 2013.
- Member of several electoral bodies of Hellenic Mediterranean University and of TEI of Crete.
- Member of several committees for selecting temporary academic staff.

## **Honors and Awards**

- Digital Equipment of Canada Ltd, award of merit for excellence in the Master of Computer Science, 1981-82. This award is presented to graduate students for academic excellence.

## **Memberships in Scientific Societies**

- The Association for Logic Programming (ALP).
- Hellenic Artificial Intelligence Society (EETN).
- Greek Computer Society.

## **Reviewer in International Journals**

- Knowledge-Based Systems, Elsevier.

## **Member of Program Committees in International Conferences**

1) The 15<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2012, June 25-27, 2012, Napoli, Itali. 2) The 14<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2011, June 22-24, 2011, Crete, Greece. 3) The 13<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2009, Sept. 7-9, 2009, Palma de Mallorca, Spain. 4) The 12<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2008, Sept. 1-3, 2008, Palma de Mallorca, Spain. 5) The 11<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2007, August 29-31, 2007, Palma de Mallorca, Spain. 6) The 10<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2006, August 28-30, 2006, Palma de Mallorca,

Spain. 7) The 9th IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2005, September 12-14, 2005, Benidorm, Spain.

## Reviewer in International Conferences

- International Workshop on Semantics, Applications and Implementation of Program Generation (SAIG'00), Montreal, Canada, Sept. 19-20, 2000.
- The 1994 International Symposium on Logic Programming, Santa Margherita Ligure. Symposium proceedings edited by M. Bruynooghe, The MIT Press.
- International Workshop on Logic Program Synthesis and Transformation (LOPSTR'93), Louvain-la-Neuve, Belgium, 7-9 July 1993, Proceedings of LOPSTR'93 edited by Yves Deville, Springer-Verlag.

## Publications

### *Dissertations*

1. E. Marakakis, *Logic Program Development Based on Typed, Moded Schemata and Data Types*, PhD thesis, University of Bristol, Department of Computer Science, February 1997.
2. E. Marakakis, *Entity Relationship Approach to the Generation of Sentences for Database Queries*, Master of Computer Science, thesis, Concordia University, June 1984.

### *Peer Reviewed International Journals*

1. A. Papakonstantinou, H. Kondylakis, E., Marakakis, *MediExpert: An Expert System based on Differential Diagnosis for Educational Purposes*, EAI Endorsed Transactions on e-Learning, March 2020, doi: <https://eudl.eu/doi/10.4108/eai.13-7-2018.163844>.
2. M. Giannoulis, H. Kondylakis, E. Marakakis, *Designing and implementing a collaborative health knowledge system*, Expert Systems with Applications, 126 (2019), pp. 277-294, Elsevier, doi: <https://doi.org/10.1016/j.eswa.2019.02.010>.
3. E. Marakakis, H. Kondylakis, *Mode Analysis During Program Development*, International Journal on Artificial Intelligence Tools, Vol. 25, No. 2, (2016), 1650001 (40 pages), doi: [10.1142/S0218213016500019](https://doi.org/10.1142/S0218213016500019), World Scientific.
4. E. Marakakis, H. Kondylakis, N. Papadakis, *A Knowledge-Based Interactive Verifier for Logic Programs*, International Journal of Knowledge-based and Intelligent Engineering Systems, 18 (2014) 143-156, IOS Press.
5. E. Marakakis, N. Papadakis, *Correctness of Logic Programs Using Proof Schemes*, International Journal of Knowledge-based and Intelligent Engineering Systems, 16 (2012), pp.185-198, IOS Press.
6. E. Marakakis, K. Vassilakis, N. Papadakis, *Meta-rules and uncertain reasoning for diagnosis of epilepsy in childhood*, Expert Systems with Applications, Volume 37, Issue 10, pp. 6979-6985, October 2010. Elsevier.

7. E. Marakakis, K. Vassilakis, N. Papadakis, *A Tool for Removing Unused Argument from Logic Programs Automatically*, *International Journal on Artificial Intelligence Tools (IJAIT)*, Volume 19, Issue 01, pp. 39-63, February 2010. World Scientific.
8. E. Marakakis, K. Vassilakis, E. Kalivianakis and S. Micheloyiannis, *An Expert System for Epilepsy with Uncertainty*, *Journal of Artificial Intelligence and Machine Learning*, Special Issue on AI & Specific Applications, 2005, pp. 72-78, ICGST Journal, (<http://www.icgst.com/paper.aspx?pid=P1120535134>), (<http://www.icgst.com/journals/journal.aspx?subid=40>).
9. L. Chung, P. Katalagarianos, M. Marakakis, M. Mertikas, J. Mylopoulos and Y. Vassiliou, *From Information System Requirements to Designs: A Mapping Framework*, *Information Systems*, vol. 16, no. 4, pp. 429-461, 1991, Pergamon Press.

### **Peer Reviewed International Conferences**

1. A. Papakonstantinou, H. Kondylakis, E. Marakakis, *INTEGRA: A Web-Based Differential Diagnosis System Combining Multiple Knowledge Bases*, *13th ACM International Conference on PErvasive Technologies Related to Assistive Environments (PETRA 2020)*, June 30- July 3, Virtual Conference, pp. 331-336, ACM, ISBN: 978-1-4503-7773-7, <https://doi.org/10.1145/3389189.3397980>.
2. M. Giannoulis, H. Kondylakis, E. Marakakis, *COSMOS: A web-based, collaborative knowledge system using ontologies and managing uncertainty*, *11th International Conference on PErvasive Technologies Related to Assistive Environments (PETRA)*, June 26–29, 2018, Corfu, Greece, pp. 441-448, ACM, <https://doi.org/10.1145/3197768.3201555>.
3. A. Stathaki, H. Kondylakis, E. Marakakis, M. Kalogerakis, *i-Prolog: A Web-based Intelligent Tutoring System for Learning Prolog*, *DLI 2017, 2<sup>nd</sup> EAI International Conference on Design, Learning and Innovation*, 30-31 October 2017, Heraklion Crete, Proceedings in Interactivity, Game Creation, Design, Learning and Innovation, edited by A. Brooks E. Brooks N. Vidakis, pages 337-346, 2018, Springer.
4. M. Giannoulis, E. Marakakis and H. Kondylakis, *Developing a collaborative knowledge system for Cancer Diseases*, *IEEE CBMS 2017, 30<sup>th</sup> IEEE International Symposium on Computer-Based Medical Systems*, pp. 767-768, <https://doi.ieeecomputersociety.org/10.1109/CBMS.2017.66>.
5. E. Marakakis, H. Kondylakis, A. Papakonstantinou, *APANTISIS: A Greek Question-Answering System for Knowledge-base Exploration*. *International Conference on Integrated Information, IC-ININFO-2016*, Athens, Greece, September 19-22, 2016, pp. 501-509 in Strategic Innovative Marketing, 5th IC-SIM, Athens, Greece 2016, edited by A. Kavoura, D. P. Sakas, P. Tomaras, Springer, DOI 10.1007/978-3-319-56288-9.
6. E. Marakakis, A. Papakonstantinou, *An Expert System for Differential Diagnosis Based on ICD-10*, *Medical Education Informatics (MEI2015)*, Thessaloniki, June 18-20, 2015.
7. E. Marakakis, N. Papadakis, *An Interactive Verifier for Logic Programs*, *13<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2009*, pages 130-137, Sept. 7-9, 2009, Palma de Mallorca, Spain.
8. E. Marakakis, C. Kounali, K. Vassilakis, *A Method for Removing Unused Argument from Logic Programs*, *Proceedings of the 10<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing, ASC 2006*, pages 197-202, August 28-30, 2006, Palma de Mallorca, Spain.
9. E. Marakakis, K. Vassilakis, E. Kalivianakis and S. Micheloyiannis, *An Expert System for Epilepsy with Uncertainty*, *Proceedings of the First ICGST International Conference on*

*Artificial Intelligence and Machine Learning, AIML'05*, pages 72-78, 19-20 December, 2005, Cairo, Egypt. Αυτό το άρθρο είναι ένα από τα 11 άρθρα (σε σύνολο 26) του συνεδρίου που επιλέχθηκαν για δημοσίευση σε μια ειδική έκδοση του περιοδικού *Journal of Artificial Intelligence and Machine Learning* 2006,  
<http://www.icgst.com/conferences/paper.aspx?pid=P1120535134&confid=51>.

10. E. Marakakis, K. Vassilakis, E. Kalivianakis and S. Micheloyiannis, *A Medical Decision Support System with Uncertainty: A Case Study for Epilepsy Classification*, *Proceedings of the 3rd European Medical and Biological Engineering Conference EMBEC'05*, Vol. 11, pages 4223-4228, 20-25 November, 2005, Prague, Czech Republic.
11. E. Marakakis, *Guided Correctness Proofs of Logic Programs*, *Proceedings of the IASTED International Conference on Artificial Intelligence and Applications*, as part of the 23<sup>rd</sup> IASTED International Multi-Conference on Applied Informatics, edited by M.H. Hamza, February 14-16, 2005, Innsbruck, Austria, pp. 668-673, ACTA Press.
12. E. Marakakis, *Use of Static Analysis During Program Development*, *Proceedings of the Eighth IASTED International Conference on Artificial Intelligence and Soft Computing*, ASC 2004, edited by A.P. del Pobil, September 1-3, 2004, Marbella, Spain, pp. 66-71, ACTA Press.
13. E. Marakakis, J.P. Gallagher, *Schema-Based Top-Down Design of Logic Programs Using Abstract Data Types*, *Proceedings of Fourth International Workshops on Logic Program Synthesis and Transformation - Meta-Programming in Logic, LOPSTR'94 and META'94*, edited by L. Fribourg and F. Turini, June 1994, Pisa, Italy, pp.138-153, LNCS 883, Springer-Verlag.
14. Y. Vassiliou, M. Marakakis, P. Katalagarianos, L. Chung, M. Mertikas and J. Mylopoulos, *IRIS - A Mapping Assistant for Generating Designs from Requirements*, *Proceedings of the 2<sup>nd</sup> Nordic Conference on Advanced Information Systems Engineering (CAiSE - 90)*, edited by B. Steinholtz, A. Solvber, L. Bergman, Stockholm, May 8-10, 1990, pp. 307-338, LNCS 436, Springer-Verlag.
15. M. Jarke, DAIDA team (... , Manolis Marakakis, ...), *The DAIDA demonstrator: Development assistant for Database applications*, *Proceedings of the 6th Annual ESPRIT Conference - Esprit '89*, Brussels, November 27 – December 1, 1989, pp. 459-474, edited by Commission of the European Communities Directorate-General Telecommunications Information Industries and Innovation.
16. DAIDA team (... , Manolis Marakakis, ...), *Towards KBMS for Software Development: An Overview of the DAIDA Project*, *Proceedings of the International Conference on Extending Database Technology, Advances in Database Technology - EDBT'88*, Venice, Italy, March 1988, pp.572-577, LNCS 303, Springer-Verlag.
17. M. Mamalaki, M. Marakakis, M. Mertikas, T. Topaloglou and Y. Vassiliou, *On the Development of Information Systems - from Requirements Modelling to System Design -*, *Proceedings of the First European Conference on Information Technology for Organizational Systems, EURINFO'88*, Athens, May 1988, pp.560-567, North-Holland.
18. Matthias Jarke, DAIDA Team (... ,Manolis Marakakis,...), *The DAIDA Environment for Knowledge-Based Information Systems Development*, *Proceedings of the 5<sup>th</sup> Annual ESPRIT*

*Conference, Esprit'88, Putting the Technology to Use, Part 1, 1988, Pages 405-422, North-Holland, Amsterdam.*

19. T. Radhakrishnan, R. De Mori, E. Marakakis, R. Castillo, *Spoken Responses to Database Queries, Proceedings of the International Conference on Systems Man and Cybernetics*, Dec. 30 1983 - Jan. 7 1984, India, vol. II, pp. 825-829, 1983, IEEE.

### **Peer Reviewed Greek Conferences**

1. Nikos Papatheodorou, Nikos Ntantinakis, Stefanos Zervoudakis, Emmanouil Marakakis, Haridimos Kondylakis, *A Probabilistic Logic Program that Predicts COVID-19 Infection and the Possibility a Patient to Recover*, 24th Pan-Hellenic Conference on Informatics, Athens, 20-22 November 2020 (accepted).
2. E. Καλυβιανάκης, E. Μαρακάκης, K. Βασιλάκης, *Διάγνωση Επιληψίας με Αβεβαιότητα*, Πρακτικά Ετήσιου Συνεδρίου «Τηλεπικοινωνιών και Πολυμέσων», TEMU2005, 23-26 Ιουνίου 2005, Ηράκλειο Κρήτης, σελίδες 212-218, ISBN 960-88785-1-9, TEI Κρήτης, 2005.

### **Books**

1. Manolis Marakakis, *Prolog: Programming in Logic for Artificial Intelligence*, Publisher New Technologies, 2nd edition 2019, ISBN: 978-960-578-055-5 (in Greek).
2. Manolis Marakakis, *Prolog: Programming in Logic for Artificial Intelligence*, Publisher New Technologies, 1<sup>st</sup> edition 2014, ISBN: 978-960-6759-98-7 (in Greek).

### **Chapters and articles in books**

1. Emmanouil Marakakis, Harydimos Kondylakis, Nikos Papadakis, *Knowledge Representation in a Proof Checker for Logic Programs*, chapter 12, pages 161-180 in book with title *Advances in Knowledge Representation*, ISBN 978-953-51-0597-8, editor Carlos Ramirez Gutierrez, April 2012, publisher InTech - Open Access Publisher, <http://www.intechopen.com/articles/show/title/knowledge-representation-in-a-proof-checker-for-logic-programs>.
2. L. Chung, P. Katalagarianos, M. Marakakis, M. Mertikas, J. Mylopoulos and Y. Vassiliou, *Mapping Information System Requirements to Designs*, chapter 8, pages 243-280 in *Database Application Engineering with DAIDA* edited by M. Jarke, Springer-Verlag, 1993.

### **Technical Reports**

1. E. Marakakis, J. P. Gallagher, *Schema-Based Top-Down Design of Logic Programs Using Abstract Data Types*, Technical Report, CSTR-94-02, Computer Science, University of Bristol, March 1994.
2. L. Chung, P. Katalagarianos, M. Marakakis, M. Mertikas, J. Mylopoulos, Y. Vassiliou, *From Information System Requirements to Designs: A Mapping Framework*, Technical Report FORTH/CSI/TR/1989/020, Computer Science Institute, Heraklion, Crete, Foundation of Research and Technology – Hellas. Also, Technical Note, CSRI – 53, Computer Systems Research Institute, University of Toronto, November 1989.
3. Matthias Jarke, DAIDA Team (...Manolis Marakakis,...), *The DAIDA Environment for Knowledge-Based Information Systems Development*, Technical Report MIP-8813, Fakultät Für Mathematics und Informatik, Universität Passau, July 1988.

4. M. Mamalaki, M. Marakakis, M. Mertikas, T. Topaloglou, Y. Vassiliou, *On the Development of Information Systems – From Requirements Modeling to System Designs*, Technical Report, RCC/CSI/TR/1987/006, Computer Science Institute, Research Center of Crete, November 1987.

### **Posters in Peer Reviewed International Conferences**

1. K. Madi, E. Marakakis, C. Voreadou, T. Manios, G. Markakis, *Application of the Environmental Decision Support System (EDSS) “Streames” to the Running Water Ecosystems of Crete*, ASLO (American Society of Limnology and Oceanography) Summer Meeting, June 19-24 2005, Santiago de Compostela, Spain.
2. E. Marakakis, *Correctness of Logic Programs Constructed by a Schema-Based Method, Logic for Programming and Automated Reasoning, LPAR '99*, Tbilisi, Georgia, September 6-10, 1999.

### **Citations**

- The citations of publications of Prof. Marakakis are shown in the following webpage of Google Scholar: <https://scholar.google.com/citations?user=9nJmrGkAAAAJ&hl=en>

### **Course Notes**

Course notes for supporting teaching.

1. Manolis Marakakis, *Artificial Intelligence*, Hellenic Mediterranean University, pages 150, Heraklion, February 2020.
2. Manolis Marakakis, *Knowledge Systems*, Hellenic Mediterranean University, pages 90, Heraklion, October 2019.
3. Manolis Marakakis, *Logic Programming*, TEI of Crete, pages 94, Heraklion, September 2018.
4. Manolis Marakakis, *Introduction to Informatics*, Course Notes for Lab, TEI of Crete, pages 145, Heraklion, September 2013..
5. Manolis Marakakis, *Software Construction, Course Notes for Theory of Programming II*, TEI of Crete, pages 282, Heraklion, September 2008.
6. Manolis Marakakis, *Prolog: Programming for Artificial Intelligence*, TEI of Crete, pages 196, Heraklion, July 2006.
7. Manolis Marakakis, *The Language C*, Course Notes for Lab of Programming, TEI of Crete, pages 106, Heraklion, April 2003.
8. Manolis Marakakis, *Introduction to Computer Science, Course Notes for Theory, of programming I*, TEI of Crete, pages 102, Heraklion, 2000.
9. Manolis Marakakis, *Structured Programming in Pascal, Course Notes for Lab of Programming I and II*, TEI of Crete, pages 149, Heraklion, 1997.
10. Manolis Marakakis, *Software Engineering: The Object-Oriented Model*, TEI of Crete, pages 52, Heraklion, 1991.

### **Supervision of Master Theses**

1. Stefanos ZERVOUDAKIS, *Opinion Mining from Data of Social Media by Probabilistic Logic Reasoning*, Electrical and Computer Engineering Department, Hellenic Mediterranean University, *MSc Thesis*, May 2020.
2. Ioannis TSAMPOS, *A Question Answering system with semantic analysis based on the ER model*, Informatics Engineering, TEI of Crete, *MSc Thesis*, March 2018.

3. Afroditi STATHAKI, *Web-Based Intelligent Tutoring for Prolog Following the Learning Theory of Constructivism*, Informatics Engineering, TEI of Crete, *MSc Thesis*, November 2017.
4. Chara KOUNALI, *Static Mode Analysis During Construction of Logic Programs*, Informatics Engineering, TEI of Crete, *MSc Thesis*, February 2014.
5. Anne SIEDLE, *The Design and Implementation of a Hotel Information System for the Front Office of a Typical Seasonal Hotel*, Erasmus student from Teesside University, Computer Science Department, UK, *MSc Thesis*, August 1990.

## **Supervision of Undergraduate Diploma Theses**

The next diploma theses have been developed under my supervision.

1. Mihail GIANNOULIS, 2017. *Development of a web-based knowledge system with collaborative update of knowledge by using ontologies and managing uncertainty*, Diploma Thesis, Department of Informatics Engineering, TEI of Crete, October 2017, Heraklion.
2. Despina BASDEKI, *Development of Knowledge System for Diagnosis of Anemia*, diploma thesis, Department of Informatics Engineering, TEI of Crete, July 2016, Heraklion.
3. Aris PAPAKONSTANTINOY, *A Knowledge System for Medical Diagnosis in Pathology*, Electrical Engineering Department, TEI of Crete, July 2015, Heraklion.
4. Logan TEMPEZ, “*Integration of Complementary Natural Language Processing Systems*”, Erasmus student from University of La Rochelle, Department of Informatics, June 2011.
5. Jérôme LEJEUNE, «*Extension of the Web Pages of Artificial Intelligence and Software Engineering (AISE) Lab*», Erasmus student from University of La Rochelle, Department of Informatics, June 2009.
6. George ANTALIS, “*Development of a System which Generates Sentences in Greek Language as Answers from Processing Queries in a Relational Database*”, Department of Applied Informatics and Multimedia, TEI of Crete, March 2008, Heraklion.
7. Konstantinos VAROUXIS, “*Development of a System which Analyses Queries in Greek Language and Transforms them into Prolog Goals for Processing in a Relational Database*”, Department of Applied Informatics and Multimedia, TEI of Crete, July 2007, Heraklion.
8. Marianna SGOURAKI, *An Interactive System for Proving Theorems by the Method of Induction*, Electrical Engineering Department, TEI of Crete, October 2006, Heraklion.
9. Sylvain BALAT, *Web Site Design and Development for the Artificial Intelligence and Software Engineering Lab*, Erasmus student from University of La Rochelle, Department of Informatics, June 2006, Heraklion.
10. Ioanna FRAGAKI, *Iktinos: A System for Program Construction Based on Program Schemata*, Electrical Engineering Department, TEI of Crete, February 2006, Heraklion.
11. Xara KOUNALI, *Improvements of Logic Programs with Transformations*, Department of Applied Informatics and Multimedia, TEI of Crete, September 2005, Heraklion.
12. Julien MONGET, *Development of an Interface for an Environmental Decision Support System for Streams*, Erasmus student from University of La Rochelle, Department of Informatics, June 2005, Heraklion.
13. Nicolas SOUMIEL, *Graphical Display of Decision Trees in a Decision Support System*, Erasmus student from University of La Rochelle, Department of Informatics, June 2005, Heraklion.
14. Manolis KALIVIANAKIS, *Expert System for Diagnosis Children Epilepsy*, Electrical Engineering Department, TEI of Crete, January 2005, Heraklion.
15. Benoit DELBOS, *Development of an Interface for a Logic Program Construction Methodology*, Erasmus student from University of La Rochelle, Department of Informatics, July 2004, Heraklion.

16. Nicolas DUCROCQ, *A Tool for Learning and Exploring State Space Search Algorithms*, Erasmus student from University of La Rochelle, Department of Informatics, June 2003, Heraklion.
17. Guillaume BUJON, *A Tool for Learning and Exploring Concepts about Substitution and Unification*, Erasmus student from University of La Rochelle, Department of Informatics, June 2003, Heraklion.
18. Yiorgos SANTIPANTAKIS, *Transformations of Logic Programs*, Electrical Engineering Department, TEI of Crete, October 2002, Heraklion.
19. Xavier MIGNOT, *Tutorial for C Programming Language*, Erasmus student from University of La Rochelle, Department of Informatics, June 2002, Heraklion.
20. Thomas MONJALON, *A System for Student Registration*, Erasmus student from University of La Rochelle, Department of Informatics, June 2002, Heraklion.
21. Piere SAUZE, *Hardware Lab Assistant*, Erasmus student from University of La Rochelle, Department of Informatics, June 2001, Heraklion.
22. Rida SEFRI, *Development of a Tool for Mapping Z Specifications into Java Code*, Erasmus student from University of La Rochelle, Department of Informatics, June 2000, Heraklion.
23. Guillaume MAYER, *Mapping Z Specifications of a Library Information System to Java Code*, Erasmus student from University of La Rochelle, Department of Informatics, June 1999, Heraklion.
24. Mickael MERLET, *Design and Implementation of an Interface for a Schema-Based Method*, Erasmus student from University of La Rochelle, Department of Informatics, June 1999, Heraklion.
25. Konstantinos PAPANIKOS, Konstantinos KATSIKANTAIS, *Development of an Accounting Information System Which Supports Greek Taxpayers in Financial Year 1996*, Accounting Department, TEI of Crete, June 1997, Heraklion.
26. Joachim MARTIN, *Graphical Presentation of Very Large Trees*, Erasmus student from University of La Rochelle, Department of Informatics, June 1997, Heraklion.
27. Kevin LEVRON, *A Graphical Interface for a Top-Down Refinement Method*, Erasmus student from University of La Rochelle, Department of Informatics, June 1997, Heraklion.
28. Richard FURIC, Sylvain DAGNAYD, *Encyclopedia Editing System Based on Hypertext*, Erasmus student from University of La Rochelle, Department of Informatics, June 1996, Heraklion.
29. Duchatelle CEDRIC, *A Bibliography Management System*, Erasmus student from University of La Rochelle, Department of Informatics, June 1996, Heraklion.
30. Jerome CARRE, *DOS Tutorial System (DidacDOS)*, Erasmus student from University of La Rochelle, Department of Informatics, June 1995, Heraklion.
31. Nikolaos PAPADOYANNAKIS, *Expert System for Soil Analysis and Crop Suggestion*, Crop Science Department, TEI of Crete, 1993, Heraklion.
32. Alaistair NEELY, *Bibliography Management System*, Erasmus student from Leeds Metropolitan University, UK, Computer Science Department, June 1993, Heraklion.
33. Yiorgos LAGOUVARDOS, *An Expert System for Diagnosis and Control of Arboriculture Diseases*, Crop Science Department, TEI of Crete, 1992, Heraklion.
34. Dave BRITTON, *Library Information System*, Erasmus student from Leeds Metropolitan University, Computer Science Department, UK, June 1991, Heraklion.

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