# <u>ΒΙΟΓΡΑΦΙΚΟ ΣΗΜΕΙΩΜΑ</u>

Name: Nikolaos Papadakis

Work Address: Associate Professor at the Department of Electrical and Computer Engineering of the Hellenic Mediterranean University, Estavromenos Heraklion, Crete, Postal Code 71004 Contact Number: +32810379196, +36945977939 E-mail: npapadak@cs.hmu.gr



## Studies

- Degree from the computer department of the University of Cyprus, in June 1997. First in my year with a 8.34 degree.
- Graduate studies in Computer Science Department at University of Crete in the Field of Information Systems and Software Engineering and in networks, MSc, November 1999
- Ph.D. in Computer Science Department at University of Crete in Knowledge Representation and Reasoning systems, March 2004.

# **Teaching Experience**

- Teaching (Visiting Professor(PD407)) of course "files and databases" in the Department of Applied Mathematics at University of Crete and "Representation and Processing of Knowledge" in the Computer Science Department at University of Crete, for the period 1.3.2004 to 31.8.2004
- Teaching (PD407) of courses "Files and Databases" and "Database Management Systems" in the Computer Science Department at University of Crete, for the period 1.9.2004 to 28.2.2005
- Teaching (PD407) of "Introduction to Computers" in the Department of Mathematics University of Crete and of "Files and Databases" in the Computer Science Department University of Crete, for the period 1-3 2005 to 31/8/2005.
- Teaching (PD407) of "Software Laboratory" in Computer Science Department University of Crete, during the period 1-10 2005 to 28.2.2006
- Teaching (PD407) of "Introduction to Computers" in the Department of Mathematics University of Crete and of "Knowledge Representation and Processing" in the Computer Science Department University of Crete, during the period 1-3 - 2006 to 31/8/2006.
- Teaching (PD407) of "Files and Databases" in the Computer Science Department University of Crete, for the period 1.9.2006 to 28.2.2007
- Teaching (PD407) of "Data Structures" in the Department of Applied Mathematics and of "Introduction to Programming" in the Department of Mathematics, University of Crete, during the period 31.8.2007 to 1-3-207.

- Teaching (PD407) of "Structured Programming" in the Electronic and Computer Engineering Department, Technical University of Crete, for the period 1.3.2007 to 31.8.2007.
- Teaching (PD407) of "Entity Programming" and "Programming Systems and Software Tools" in the Electronic and Computer Engineering Department, Technical University of Crete, for the period 1.9.2007 to 29.2.2008.
- Teaching (PD407) of "Symbolic Discrete Structures" in the Electronic and Computer Engineering Department, Technical University of Crete, during the period 1.3.2008 to 31.8.2008.
- Teaching (PD407) of "Compilers" in the Computer Science Department University of Crete, during the period 1.3.2008 to 31.8.2008.
- Teaching (PD407) of course in Logic in Computer Science Department, University of Crete, for the period 1.3.2009 to 31.8.2009.
- Visiting Professor at the Department of Science, TEI of Crete. Teaching the courses :
  - *Programming I (civil engineering department ),*
  - Programming II (civil engineering department)
  - Programming II (electrical engineering department) Information Technology (programming in C language) (mechanical engineering department)
  - o Introduction to information technology (Nursing Department)
  - Introduction to Information Technology (Crop Science Department)
  - Programming II (electrical engineering department)

for the period 1/9/2008 to 30/8/2013.

- Lecture at the Department of Science, TEI of Crete. Teaching the courses :
  - Programming II (electrical engineering department) Information Technology (programming in C language) (mechanical engineering department)
  - Introduction to information technology (Nursing Department)
  - o Introduction to Information Technology (Crop Science Department)
  - Information System (Crop Science Department)
- Assistant Professor at the Department of Informatics Engineering, TEI of Crete for the period 1/9/2013 to 17/7/2017. Teaching the courses :
  - Introduction to Information Technology
  - Internet Programming System
  - Databases
  - Software Engineering
  - Semantic Web (Post Graduate)
- Associate Professor at the Department of Informatics Engineering, HMU. Teaching the courses
  - :
- Introduction to Information Technology
- Business work flow and information systems
- o Databases

- Machine learning and data mining
- Programming languages
- o Semantic Web (Post Graduate)
- Associate Professor at the Department of electrical and computer engineering, 2019 -today Teaching the courses :
  - Introduction to Information Technology
  - Business work flow and information systems
  - Databases
  - *Machine learning and data mining*
  - Programming languages
  - o Semantic Web (Post Graduate)

### **Other Teaching Experience**

- Supervised 75 undergraduate theses and one graduate thesis in Computer Science Department, University of Crete, April 2004 May 2009.
- Supervised 170 undergraduate theses and 10 graduate theses at Department of Informatics Engineering, TEI of Crete, October 2007 present.
- Supervise 2 phd at Department of electrical and computer engineering

### Work Experience

- Assistant systems analyst at the Institute of Neurology and Genetics in Nicosia, May to July 1996.
- Network administrator at the University of Crete, 1/2/1999 28/2/2000.
- Manager in the laboratories of Interdisciplinary Graduate Program "Advanced Methods and Information Systems in Archaeology" during the period 1/9/2002 to 31/1/2003.
- Researcher at the Institute of Computer Science of The Foundation for Research and Technology in the period May 2006 to December 2006.
- Researcher at the Technical University of Crete a)in the research program TOWL during the period February 2007 to September 2008 b)in the research program nShield during the period June 2013 to August 2014

# **Publication**

#### **Conferences**

- George Tsamis, Nikos Papadakis, Evaggelos Tzirakis, Evi Katsaraki, M Rousaki, John Nikolopoulos and Kostas Vassilakis (2017). "Real Time Evaluation of Education Methods via Smart Mobile Technology". In Interactivity, Game Creation, Design, Learning, and Innovation(pp. 95-104). Springer, Cham.
- 2. Haridimos Kondylakis, Melidoni Despoina, Georgios Glykokokalos, Eleftherios, Kalykakis, Michail-Angelos Lasithiotakis, John Makridis, Panagiotis Moraitis, Aspasia Panteri, Maria Plevraki, Antonios Providakis, Maria Skalidaki, Athanasiadis, Stefanos, Manolis Tampourat-zis, Eleftherios Trivizakis, Fanis Zarvakis, Ekaterini Zervouraki, Nikos Papadakis "EvoRDF: A framework for exploring ontology evolution", online proceedings ESWC 2017 (Satellite Events) 2017: 104-108

- Papadokostaki, K., Charitakis, S., Vavoulas, G., Panou, S., Piperaki, P., Papakonstantinou, A., Lemonakis, S., Maridaki, A., Iatrou, K., Arent, P., Wisniewski, D., Papadakis, N., & Kondylakis, H. (2016). News Articles Platform: Semantic Tools and Services for Aggregating and Exploring News Articles. International Conference on Integrated Information, Athens, Greece, September 19-22, 2016. Springer.
- 4. George Hatzivasilis, Ioannis Papaefstathiou, Charalampos Manifavas, Nikos Papadakis: A Reasoning System for Composition Verification and Security Validation. NTMS 2014: 1-4
- Nikos Papadakis, Pavlos Kefalas and Aristidis Apostolakis, "Access to Relational Databases with english language", IADIS Applied Computing 2010 (AC 2010) Conference, ISBN (Book): 978-972-8939-30-4, pp 151-158.
- Nikos Papadakis, Polydoros Petrakis, Dimitris Plexousakis, Haridimos Kondylakis «A Solution to the Ramification Problem Expressed in Temporal Description Logics», accept in 4th International Workshop on New Forms of Reasoning for the Semantic Web: Scalable & Dynamic - NEFoRS2010 co-located with the 7th Extended Semantic Web Conference (ESWC2010)
- Nikos Papadakis, Pavlos Kefalas and Antonis Delidakis, "A Distributed System for Discovery Knowledge Over Peer-To-Peer Network ", 13th IASTED International Conference on Artificial Intelligence and Soft Computing pp125-129, 2009
- 8. Manolis Marakakis and Nikos Papadakis, "An Interactive Verifier for Logic Programs", 13th IASTED International Conference on Artificial Intelligence and Soft Computing, pp. 130-137, 2009
- Evdoxios Baratis, Euripides Petrakis, Sotiris Bastakis, Nikolaos Maris and Nikos Papadakis, TOQL: Temporal Ontology Querying Language 11th International Symposium on Spatial and Temporal Databases 2009, pp. 338-354.
- 10. Evdoxios Baratis, Nikolaos Maris, Euripides Petrakis, Sotiris Batsakis and Nikolaos Papadakis, The TOQL system 11th International Symposium on Spatial and Temporal Databases 2009 pp. 450-454.
- 11. Nikos Papadakis, Dimitris Plexousakis, Grigoris Antoniou, Manolis Daskalakis, Yannis Christodoulou. The Ramification Problem in Temporal Databases: a Solution Implemented in SQL. 17th International Symposium on Methodologies for Intelligent Systems (ISMIS'08), pp. 381–388 May 2008 Canada.
- Nikos Papadakis ,Nikolaos Doulamis and Anastasios Doulamis.Hierarchical graph-based media content representation for real time search in large scale multimedia databases. IASTED International Conference,. Signal and Image Processing (SIP 2007), pp. 197-201 August 20-22, 2007, Honolulu, HI, USA. ISBN 978-0-88986-676-8.
- Nikos Papadakis, Grigoris Antoniou and Dimitris Plexousakis, "The Ramification Problem in Temporal Databases: Concurrent Execution with Conflicting Constraints", 19th IEEE International Conference on Tools with Artificial Intelligent, pp. 274-278, Patra, Greece, October 2007.
- 14. Nikos Papadakis and Dimitris Plexousakis, "Addressing the Ramification Problem in a Temporal Context: the case of Concurrent Actions", pp. 545-551 15<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligent, Sacramento, USA, November 2003.
- 15. Nikos Papadakis and Dimitris Plexousakis, "Action with Duration and Constraints: The Ramification problem in Temporal Databases", pp. 83-90 14<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligent, Washington, USA, November 2002.
- 16. Nikos Papadakis and Dimitris Plexousakis, "The Ramification and Qualification Problem in Temporal Databases", 2<sup>th</sup> PanHellenic Conference on Artificial Intelligent, p. 18 -30 LNAI 2308 April 2002, Thessalonica, Greece.
- 17. Nikos Papadakis and Dimitris Plexousakis, "Action Theories in Temporal Databases", 8<sup>th</sup> PanHellenic Conference on Informatics, November 2001, Nicosia, Cyprus.
- Magda Chatzaki, Stelios Sartzetakis, Nikos Papadakis and Costas Courcoubetis, "Resource Allocation in Multiservice MPLS", In Proceedings IEEE/IFIP 7<sup>th</sup> IWQoS '99, ISBN: 0780356713, UCL, London, May 31 - June 4, 1999.
- 19. M. Mavronicolas and N. Papadakis, "Trade-off Result for Connection Management", pp. 340-351 11<sup>th</sup> International Symposium on Fundamentals of Computation Theory, Krakow, Poland, September 1997.

#### **Journals**

- Hatzivasilis, G., Papadakis, N., Hatzakis, I., Ioannidis, S., & Vardakis, G., Artificial Intelligence-Driven Composition and Security Validation of an Internet of Things Ecosystem. Applied Sciences, 10 (14), 4862, 2020.
- Kondylakis Haridimos, Tsirigotakis Dimitrios, Fragkiadakis Giorgos, Panteri Emmanouela, Papadakis Alexandros, Fragkakis Alexandros, Tzagkarakis Eleytherios, Rallis Ioannis Saridakis, Zacharias, Trampas Apostolos Pirounakis Giorgos, Papadakis Nikolaos, "R2D2: A Dbpedia Chatbot Using Triple-Pattern Like Queries", Algorithms . Sep2020, Vol. 13 Issue 9, p217-217. 1p.
- Chatziadam, P., Dimitriadis, A., Gikas, S., Logothetis, I., Michalodimitrakis, M., Neratzoulakis, M., I Hatzakis, G Gerakis, N Papadakis, H Kondylakis - (2020). TwiFly: A Data Analysis Framework for

Twitter. Information, 11(5), 247.

- 4. Haridimos Kondylakis Nikos papadakis EvoRDF: evolving the exploration of ontology evolution ,Journal of The Knowledge Engineering Review Volume 33,2018.
- George Tsamis, Nikos Papadakis, Evangelos Tzirakis, Maria Rousaki, Evi Katsaraki, John Nikolopoulos, Emmanouela Panteri, and Kostas Vassilakis, "Instant Evaluation of Teaching Methods and Students' Comprehension Level using Smart Mobile Technology", EAI Endorsed Transactions on Creative Technologies; Ghent Vol. 5, Iss. 16, (Jul 2018). DOI:10.4108/eai.13-7-2018.156384.
- Nikos Papadakis, Eirini Filiopoulou, Kostas Papadakis and Ilias Chatzakis, "A Tool For Digital Education Based In Case Base Reasoning", International Journal of Semantic Computing, volume Vol. 12, No. 04, pp. 579-593 (2018)
- George Hatzivasilis, Ioannis Papaefstathiou, Dimitris Plexousakis, Charalampos Manifavas and Nikos Papadakis, "AmbISPDM: Managing Embedded Systems in Ambient Environments and Disaster Mitigation Planning", Journal of Applied Intelligent, Volume 48, Issue 6, pp 1623–1643, June 2018.
- Nikos Papadakis, Haridimos Kondylakis, Anastasios Kalaentzis, Ioannis Komporakis, Ioannis A. Deligiannis, Malvina Steiakaki, George Alexiou and Xanthoula Atsalaki "BlogSearch: Semantic Services for Aggregating and Searching Blog Articles", International Journal of Semantic Computing, 2016, Vol 10, Issue 3, pp 399-415.
- 9. Nikos Papadakis, Polydoros Petrakis, Dimitris Plexousakis, Haridimos Kondylakis «A Solution to the Ramification Problem Expressed in Temporal Description Logics», International Journal of Semantic Computing, 2015, Vol 9, Issue 1, pp 67-103.
- 10. Nikos Papadakis, Sokratis Kartakis, Kostas Papadakis and Eva Papadakis « A tool for Spatial Reasoning in XML Documents", International Journal of Semantic Computing 2014, Vol 8, Issue 1, pp 1-46, .
- 11. Emmanouil I. Marakakis, Haridimos Kondylakis, Nikos Papadakis: A knowledge-based interactive verifier for logic programs. KES Journal 18(3): 143-156 (2014).
- 12. Charalampos Manifavas, Nikos Papadakis, Antonis Misargopoulos, and Maria Psaraki . "A HIGH-PERFORMANCE SCHEDULER FOR JOIN QUERIES EXECUTION OVER GRID." International Journal of Modelling and Simulation 33.4 (2013).
- 13. Emmanuil Marakakis and Nikos Papadakis "Correctness of logic programs using proof schemes" International Journal of Knowledge-Based Intelligent Engineering Systems 16 (2012) 185-198.
- Nikos Papadakis, Kostas Stravoskoufos, Evdoxios Baratis, Euripides Petrakis, Dimitris Plexousakis. "PROTON: A Prolog Reasoner for Temporal ONtologies in OWL", Expert Systems with Applications 38 (2011) 14660–14667.
- Nikos Papadakis, Dimitris Plexousakis, Yannis Christodoulou. "The Ramification Problem in Temporal Databases: a Solution Implemented in SQL", Journal of Applied Intelligent 2012, vol 36, no4, pp749-767.
- 16. Nikos Papadakis, Dimitris Plexousakis, Myron Papadakis, Harris Manifavas "The Ramification Problem in Temporal Databases: An approach with conflicting constraints", Journal of Intelligent Information Systems Volume 31, Issue 1, pages 41-94, 2012
- 17. Nikos Papadakis, Pavlos Kefalas and Manolis Stilianakakis, "A tool for access to relational databases in natural language", Journal Except Systems with Applications volume 38 (2011) 7894–7900

- Nikos Papadakis, Yannis Christodolou, and Panagiotis Sartzetakis and Kostas Papadakis "A tool for constraint satisfaction in XML Temporal Databases", International Journal of Reasoning-based Intelligent Systems Vol. 3, No. 1, 2011 pp 44-58
- 19. Nikos Papadakis, Kefalas Pavlos and Delidakis Antonios "AN APPROACH OF A LOGIC RESOLVER IN A DISTRIBUTED PEER-TO-PEER SYSTEM", International Journal of Computers and Applications, Vol.34 Issue 1, 2012.
- Nikos Papadakis and Stavros Boutzas, "A tool for Ramification Reasoning over Temporal OWL Knowledge Bases", International Journal of Knowledge-Based Intelligent Engineering Systems 14 (2010) 159–182.
- Emmanuil Marakakis, Kostas Vassilakis and Nikos Papadakis, "Meta-rules and Uncertain Reasoning for Diagnosis of Epilepsy in Childhood", Journal Except Systems with Applications Volume 37, Issue 10, October 2010, Pages 6979-6985
- 22. Nikos Papadakis, "Addressing the frame and qualification problems in Temporal Databases", International Journal of Reasoning-based Intelligent Systems, Vol. 2, No. 2, 2010, pp. 158-166
- Nikos Papadakis and Yannis Christodoulou, "A tool for addressing the ramification problem in spatial databases: A Solution Implemented in SQL", Journal Except Systems with Applications, 37 2010 pp. 1374–1390.
- 24. Emmanuil Marakakis, Kostas Vassilakis and Nikos Papadakis, "A TOOL FOR REMOVING UNUSED ARGUMENTS FROM LOGIC PROGRAMS AUTOMATICALLY", International Journal of Artifial Intelligence Tools Vol. 19, No. 1 (2010) 39–63
- 25. Nikos Papadakis, Dimitris Plexousakis, Grigoris Antoniou, Myron Papadakis, Katerina Boutsika «A tool for addressing the ramification problem in temporal databases», . International Journal of Artificial Intelligence Tools Vol. 18, No. 4 (2009) 589–601
- 26. Nikos Papadakis and Dimitris Plexousakis, Grigoris Antoniou "The Ramification Problem in a Temporal Databases: Concurrent Execution" International Journal of Intelligence Systems, Vol. 25, 287-325, 2010.
- 27. Nikos Papadakis, Nikolaos Doulamis and Anastasios Doulamis. Hierarchical graph-based media content representation for real time search in large scale multimedia databases, Journal of Machine Graphics and Vision vol. 19, no. 3, 2010, pp. 247-263 (Special Issue on Image Databases).
- Nikos Papadakis, Grigoris Antoniou and ,Dimitris Plexousakis "The Ramification problem in Temporal Databases: Chaning the Beliefs About the Past", Journal of Data and Knowledge Engineering, 59, pp. 397-434, November 2006.
- 29. Nikos Papadakis and Dimitris Plexousakis, "Action with Duration and Constraints: The Ramification problem in Temporal Databases", pp. 315-353, International Journal on Artificial Intelligent Tools, volume 12, Number 3, September 2003.
- M. Mavronicolas and N. Papadakis, "Trade-off Result for Connection Management", Theoretical Computer Science p. 1- 57, vol 290(1), January 2003.

#### References google scholar more than 200

# **Books and Chapper in Book**

- Νίκος Παπαδάκης Σπύρος Παναγιωτάκης Μαρία-Γεωργία Ψαράκη, Ειρίνη Φιλιοπόυλου Σύγχρονα Θέματα Πληροφορικής Δισίγμα 2014
- Νίκος Παπαδάκης Σπύρος Παναγιωτάκης Μαρία-Γεωργία Ψαράκη Εισαγωγή στην Πληροφορική Δισίγμα 2011
- E Marakakis, H Kondylakis and Nikos Papadakis Knowledge Representation in a Proof Checker for Logic Programs chapter 7 161-180 in the book "Advances in Knowledge Representation, ISBN: 978-953-51-0597-8"

# **Programm chair and program member**

**Program Chair:** 8th IEEE Workshop on Intelligent Solutions in Embedded Systems (Heraklion, Crete, Greece, 8-9 July 2010)

Member of Program Committee: 9th IEEE Workshop on Intelligent Solutions in Embedded Systems 2011

Member of Program Committee: 10th IEEE Workshop on Intelligent Solutions in Embedded Systems 2012

Member of Program Committee: 11th IEEE Workshop on Intelligent Solutions in Embedded Systems 2013

Member of Program Committee: 14<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing 2011.

Member of Program Committee: 15<sup>th</sup> IASTED International Conference on Artificial Intelligence and Soft Computing 2012.

Member of Program Committee: 1th International Conference on Fuzzy System and Data Mining(FSDM2015) Member of Program Committee: 2nd International Conference on Fuzzy System and Data Mining(FSDM 2016)

### **Research Interests**

**Databases, Artificial Intelligence and Software Engineering:** Rules integrity, temporal databases, knowledge representation, Database management systems and knowledge, reasoning systems and software development

Semantic Web: Query Languages, logic programming languages.

Additional interests: Distributed Algorithms: Communication Protocols, Fault Tolerance, multimedia databases

Software Engineering: methods of automatic optimization of software, interactive verifier

### **Participation in Research Programs**

- Internet support integrated network services, Computer Science, University of Crete, 1/2/1999 - 28/2/2000: support centre management and adaptation of appropriate software for monitoring and measuring the basic network elements.
- Graduate program EPEAEK. Advanced Methods and systems in Archaeology. Research and management of material remains of the Aegean Civilizations, 1/9/2002 – 31/12/2002, University of Crete: technical support of the laboratory rooms in the postgraduate program (hardware / software).
- *Graduate Program in Computer Science Department, 1/1/2003 31/3/2003, University of Crete:* technical support of the labs in the postgraduate program (hardware / software).
- ACGT, April 2006 December 2006. (IST FP6 Integrated Project), Institute for Research and Technology technical : supervision for the implementation of the intermediate software for ACGT.
- *Towl, February 2007 September 2008, Technical University of Crete:* software development.
- *MODIP TEI of Crete January 2011-Decemeber 2013.*(team leader for develop the information system)
- **DASTA TEL of Crete January 2011-Decemeber 2014.**(team leader for develop the information system)
- «*nShield New architecture of incorporated systems for support of safety in multiple levels*», *FP7 code80507 June 2013-August 2014.* (Develop an ontology for support security and reasoning in incorporated systems)

- Archmides III- TEI of Crete «Hierarchical Shared Memory Systems for Embedded Applications» during from 1-9-2012 until 28-2-2013
- Program Atlas -Practice Exercise during 15-10-2014 until 30-01-2015
- **Research project** « Medical Product Vigilance & Patient Safety during 1/7/2012 until 30/09/2015.
- Research project Enhance(Erasmus) during 1-4-2018 until today

# Administrative Activities at the TEI of Crete and HMU

- Vice President at the Department of Social Work Hellenic Mediterranean University from 1-4-2019 until today.
- Head of team Telecommunication and Informatic Technology at the Department of Electrical and Computer Engineering of the Hellenic Mediterranean University from 1-9-2020 until today.
- Vice President of Department of Social Work TEI Crete from 1-9-2018 until 4-2019.
- Vice President of Department of Informatic Engineering TEI Crete from 10-9-2016 until 31-9-2018.
- Head of Informatics team at the Department of Informatic Engineering TEI Crete from 10-9-2016 until 31-9-2018.
- Member of the evaluation committee temporary teaching staff from 1-9-2007-08 until today.
- Member of the competitions committee of the TEI of Crete in the year 2009-2010
- President of the competitions committee of the TEI of Crete in the year 2014-2015.

### **Skills and Qualifications:**

- Ms office, Ms Studio
- Foreign Language: English.
- **Programming ability** : C, C++, Pascal, Modula-2, Miranta, Prolog, UNIX, HTML, Python, PERL, JAVA, SQL, PL/SQL, SPARC Assembly, Visual basic, PHP, Javascript, JSP, Proteze.
- Computer Environments: UNIX, Windows NT, Windows 95-98-2000.