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# Education

- B.Sc. degree in Physics at the University of Thessaloniki GR (1982)
- Ph.D. degree in Computer Science at the University of Thessaloniki GR (1988), "Development of a Logic Programming Machine"

## Positions

Past

- Lecturer, assis. Prof., assoc. Prof., in the School of Informatics at the Aristotle University of Thessaloniki (1990-2003)
- Visiting professor at Purdue University, Indiana, USA
- Director of the Joint Postgraduate Course in «Informatics and Management», (2005-2013)
- Member of the steering committee of the <u>Dept. of Bioinformatics</u>, <u>Univ. of Thessaly</u> (2006-2011)
- Member of the National Council of Research and Technology (ESET), (2008-2011 and 2014-2015)
- Member of the National Council for Electronic Commerce, (2006-2008)
- Chair of the Board of the <u>Hellenic Artificial Intelligence Society</u> (EETN), (2011-2012)
- Member of the steering committee of the <u>International Hellenic University of Greece</u> and Dean of the <u>School of Science and Technology</u>, (2007-2016)
- Chair of the <u>School of Informatics</u> at the Aristotle Univ. of Thessaloniki (2003-2005 & 2013-2017)

#### Current

- Professor in the School of Informatics at the Aristotle University of Thessaloniki (2003 today)
- Director of Intelligent Systems Lab (School of Informatics, Aristotle University of Thessaloniki)
- Member of the steering committee of the International Hellenic University of Greece

## Scientific Achievements

- EurAl Fellow since May 2017
- Chairman of the <u>2nd Hellenic Conference on Artificial Intelligence</u>, 2002
- Co-Chair of the <u>2nd International Summer School on Al Planning</u>, 2002
- Guest Editor of the <u>Special issue on Knowledge Discovery from Distributed Information Sources</u>, Journal of Information Sciences, 2003
- Member of the editorial board of the International Journal on Artificial Intelligence Tools (IJAIT)
- Program Chair, 2nd ADBIS Workshop on Data Mining and Knowledge Discovery, ADMKD'2006
- Workshop co-chair, European Conference on Artificial Intelligence 2008 (ECAI'08)
- Chairman, 1<sup>st</sup> Hellenic Artificial Intelligence Summer school (HAISS09), August 2009
- Workshop co-chair, 19th International Conference on Automated Planning and Scheduling, ICAPS'09

- General Co-chair, 5th IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI'2009)
- Organizing chair, International Conference on Artificial Neural Networks (ICANN 2010)
- Guest Editor, special issue on "Artificial Intelligence Techniques for Pervasive Computing", International Journal on AI Tools (IJAIT), World Scientific, 2010
- General Chair of <u>24th IEEE International Conference on Tools with AI</u>, November 2012
- General co-Chair of 17th Panhellenic Conference on Informatics, PCI 2013
- General co-Chair of the 9th Hellenic Conference on Artificial Intelligence, SETN 2016
- Member of the organizing committee that submitted in 2006 the proposal to host IJCAI 2011 in Thessaloniki, Greece
- Program Committee member in numerous international conferences (ECAI, ECML/PKDD, ICAPS, ICTAI, ICAART, ICANN, SETN, ADBIS, AIAI, PETRA, BIBE, etc)
- Member of:
  - **Greek Computer Society** 0
  - **IEEE Computer Society** 0
  - The Association for Logic Programming (ALP) 0
  - Hellenic Artificial Intelligence Society (vice chairman 2002-2004, chairman 2011-2012) 0

#### **Books**

- "The Programming Language Pascal", 1991 (in Greek)
- "Parallel Object-Oriented and Active Knowledge Base Systems", Kluwer Academic Publishers, 1998 ٠
- "Parallel and Constraint Logic Programming", Kluwer Academic Publishers, 1998
- "Intelligent Techniques for Planning", IDEA Group Publishing, 2004
- "Artificial Intelligence for Advanced Problem Solving Techniques,", IDEA-Group Publishing, 2008.
- "Artificial Intelligence", 4th edition (more than 1000 pages), 2020 (in Greek)

#### Courses

#### Past

- Programming
- Logic Programming (Prolog)
- **Knowledge Based Systems**
- Intelligent Autonomous Systems

#### Research interests

- Logic Programming Systems
  - Parallel & Constraint Logic Programming
- Planning
  - Heuristic, Parallel, Multi-Objective
  - Planning with Constraints •
  - Knowledge Representation & Reasoning
  - **Knowledge Base Systems** •
  - Semantic Web
  - **Knowledge Management**

## Current

- Artificial Intelligence (BSc program)
- Machine Learning (MSc program)
- Decision Support Theory and Systems (BSc program) •

#### Machine Learning / Data Mining

- **Distributed Data Mining**
- **Text Mining**
- Mining Biological Data
- **Reinforcement Learning**
- Intelligent Applications
  - Machine Learning applications •
  - **Decision Support Systems**
  - e-Learning, e-Commerce, e-Business

## PhD Theses

I have successfully supervised 15 PhD students at the Dept. of Informatics (AUTH).

- Nick Bassiliades, Prof., 1998, "Parallel Knowledge Base Systems"
- <u>Ioannis Refanidis</u>, Prof., 2001, "Heuristic State-Space Planning"
- <u>Dimitris Vrakas</u>, Prof., 2004, "Intelligent Planning Systems"
- <u>Grigorios Tsoumakas</u>, Prof., 2005, "Machine Learning for the Fusion of Multiple, Distributed Intelligent Systems"
- Fotis Kokkoras, Assis. Prof., 2006, "Intelligent Retrieval and Extraction using Conceptual Graphs"
- Christos Berberidis, Tech. Prof., 2007, "Knowledge Discovery from Sequential and Transactional Data"
- Evaggelos Hatzikos, 2008, Intelligent system for monitoring and prediction of the water quality
- <u>Georgios Chondris</u>, 2008, "The virtual textbook: a proposition a multimedia database as a replacement of the paper textbook"
- Ioannis Katakis, Prof., 2009, "Machine Learning for Automated Text Classification"
- Ioannis Partalas, 2009, "Reinforcement Learning Methods in Agent Systems"
- George Tzanis, 2011, "Knowledge Discovery from Biological Data"
- Thanos Stavropoulos, 2015, "Web Services in Ambient Intelligence Environments"
- <u>Eleftherios Spyromitros-Xioufis</u>, 2016, "Machine Learning Methods for Predicting Multiple Response Variables"
- Anestis Fachantidis, 2016, "Knowledge Transfer in Reinforcement Learning"
- Ioannis Kavakiotis, 2016, "Knowledge Discovery from Biological Data"

Currently I supervise 5 PhD candidate students (N. Stylianou, E. Kouloumbris, A. Lazaridis, D. Zaikis and I. Pierros).

I have been a member of the supervising committee of more than 25 PhD students and currently I am a member of the supervising committee of 7 other PhD candidates.

## Prizes and Awards

- In May 2017 I was elected EurAl Fellow.
- ECML PKDD 2017 Test of Time Award for the paper "Random k-Labelsets: An Ensemble Method for Multilabel Classification" presented at ECML PKDD 2007, in collaboration with Assis. Prof. G.Tsoumakas.
- 1st place at the large-scale online biomedical semantic indexing challenge organized in 2013 by the European FP7 research project BioASQ, outweighing the state-of-the-art operational system of the National Library of Medicine and the approaches of several teams, including Mayo Clinic and the National Center for Biotechnology Information. In collaboration with Assis. Prof. G.Tsoumakas and US company Atypon.
- In 2014-2017 we achieved the 2nd place, as well as similarly good positions in other tasks (grant extraction, question answering), in collaboration with several PhD students.

## Projects

I have been involved in more than 35 research and development projects, leading most of them. Indicative List:

- AI4EU: A European AI On Demand Platform and Ecosystem, H2020, ICT-26, 1/2019-12/2021, Budget: € 110.625 (Principal Investigator).
- ADHD360: Information System for symptom diagnosis and improvement of Attention Deficit Hyperactivity Disorder, 6/2018-6/2021, Funding by Operational Programme Competitiveness, Entrepreneurship and Innovation (EPAnEK), under the call RESEARCH – CREATE – INNOVATE, (2018 - 2020) Budget: € 214.980 (Principal Investigator).

- ECO NICHE: Energy Controlling Voice Enabled Intelligent Smart Home Ecosystem, Funded by Operational Programme Competitiveness, Entrepreneurship and Innovation (EPAnEK) (2018 - 2020) Budget: € 280.150
- European PhD Hub Erasmus+ Key Action 2 Knowledge Alliance, (2017-2020)
- ABC IV Framework Contract (EU, subcontractor of KPMG + CGI consortium (2017-2021)
- Semantic indexing and question answering in big data, 1/2015 8/2019, Funded by Atypon Systems Inc, Budget: € 318.000 (Principal Investigator).
- Energy Controlling Voice Enabled Intelligent Smart Home Ecosystem, 7/2018-7/2021, Funded by Operational Programme Competitiveness, Entrepreneurship and Innovation (EPAnEK), Budget: € 280.150 (Co-author, Co-investigator).
- Information theoretic feature selection for multi-target regression, 6/2018-9/2020, Funded by Education and Lifelong learning Programme, 2018-2019, Budget: € 46.000 (Principal Investigator).
- Retail Demand Forecasting, 9/2017-9/2019, Funded by Masoutis S.A., Budget: € 28.000 (Principal Investigator).
- ADcup: Automatic detection of customers' patterns, 12/2017-11/2018, Funded by GML INTERACTIVE LTD, Budget: € 32.000 (Principal Investigator).
- PaaSport: A semantically-enhanced marketplace of interoperable platform-as-a-service offerings for the deployment and migration of business applications of SMEs FP7-SME-2013 / 605193. (2013-2016)
- BusGrid: An integrated system for productivity and customer service improvement in the Public Transportation Companies. Prediction of bus passenger demand, 4/2014-6/2015, Funded by the Greek R&D General Secretariat, PABET, Budget: € 66.900 (Principal Investigator).
- GCPS Daily gas consumption forecasting, Funded by Gas Supply Company of Thessaloniki and Thessaly, Funding: Private sector, 8/2014-12/2014, Budget: € 10.000 (Principal Investigator).
- Smart IHU, Funded by Operational Program Education and Lifelong Learning, OPS200056 (International Hellenic University, Thessaloniki, Greece) (2010 2011).
- I-NET: Interoperability, Flexibility and Adaptiveness of Inter-Enterprise B2B Transactions, 11/2006-12/2008, Funded by the Greek General Secretariat for Research and Technology, Budget: € 26.900 (Principal Investigator).
- SWIM: Development of an Intelligent System for the management of Semantic Web Services, 11/2005-10/2008, Funded by Greek R&D general secretariat, Budget: € 88.664.

For a complete list, please visit <u>http://intelligence.csd.auth.gr/projects</u>

## Publications

- Author or co-author of more than 350 articles in scientific journals, conference proceedings and book chapters in the research fields mentioned above, in the research interests.
- According to <u>Google Scholar</u> the above papers have been cited more than 15350 times by other researchers (h-index of 54).
- My profile can be seen also at <u>Semantic Scholar</u> and <u>dblp:Vlahavas</u>
- Publish or Perish, gives similar results

For a complete list, please visit <u>http://intelligence.csd.auth.gr/people/vlahavas/</u>