

# **CURRICULUM VITAE** **OF B. BOUTSINAS**

## **Personal details:**

Full name: ..... **Basilis P. Boutsinas**

Date of Birth: ..... 11<sup>th</sup> July, 1963

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## **QUALIFICATIONS**

### **Higher Education:**

- [1997] PhD, Dept of Computer Engineering & Informatics, University of Patras, Greece (PhD thesis: “Knowledge Representation for Commonsense Reasoning”).
- [1991] BEng in Computer Engineering and Information Science, Dept of Computer Engineering & Informatics, University of Patras, Greece (Diploma thesis: “An authoring system based on end user programming”).
- [1988] BSc in Pedagogics, Teachers College of Lamia, Greece (Diploma thesis: “Computer support to poetry”).
- [1985] BSc in Electronics Engineering, Technical Education Institute of Piraeus, Greece (“Diploma thesis: Computer aided electronic circuits design”).

### **Teaching Experience:**

- [2013-present] professor at Dept. of Business Administration of University of Patras. (Graduate Student Supervision: 5 PhD, 13 PhD students)
- [2008-2013] associate professor at Dept. of Business Administration of University of Patras.
- [2001-2008] assistant professor at Dept. of Business Administration of University of Patras.
- [1999-2006] teaching in the postgraduate program “Mathematics of Computers and Decision Making” of the Dept. of Mathematics and Dept. of Computer Engineering & Informatics of University of Patras. (Graduate Student Supervision: 12 MSc students)
- [2010-present] teaching in the MBA program of the Dept. of Business Administration of University of Patras.
- [1997-2000] visiting professor at Dept. of Computer Engineering & Informatics and at Dept. of Business Administration of University of Patras.

- [1996-2013] visiting professor at Dept. of Accounting and at Dept. of Business Planning and Information Systems of Technical Educational Institute of Patras

### **CAREER HISTORY:**

- [2018-present] Dean of School of Economics & Business, University of Patras.
- [2020-present] Member of the Steering Committee of the Artificial Intelligence Institute of the University Research Center, University of Patras.
- [2018-2020] Vice president of the Research Committee of the University of Patras.
- [2009-present] director of Management Information Systems & Business Intelligence Laboratory, University of Patras.
- [2012-2013] Chairman of the Department of Business Administration, University of Patras.

[1992-present] Employer: Research Committee of the University of Patras, Duties: Management of research projects.

Research projects:

1. [1997-1998] Development of a data warehousing and OLAP analysis system for Panavox S.A. (now joined in Vodafone group)
2. [1998-1999] Development of a data mining system for Panavox S.A. (now joined in Vodafone group). Supported by General Secretariat of Research and Development of Greek Ministry of Development.
3. [1998-1999] Development of a workflow system for the automation of the organizational processes of the Hellenic Football Federation.
4. [2002] Training Executives in business Intelligences for Panavox S.a. ( now joined in group)
5. [2003] Development of a Balanced Scorecard and an OLAP analysis system for the Greek Ministry of Development.
6. [2002] Development of an application for supporting human resources in a government organization for the management of EU projects.
7. [2004-2005] Development of a data mining system. Supported by General Secretariat of Research and Development of Greek Ministry of Development.
8. [2005-2007] Development of an intelligent knowledge based system for automatic music composition. Supported by General Secretariat of Research and Development of Greek Ministry of Development.
9. [2004 present] Training of teachers in the utilization and application of Information and Communication Technologies in the teaching method. Supported by Ministry of Economy Competitiveness and Shipping (Operational programme: Education and Lifelong Learning).
10. [2012] Training of doctors of University Hospital of Rion in Decision Support Systems and Accounting Information Systems. Supported by Greek Manpower Employment Organization.
11. [2013-2015] Development of an intelligent system for supporting people with autism spectrum disorders. Supported by Greek Ministry of Health.
12. [2019-2021] Development of a methodology for GDPR compliance of Economic Chamber of Greece.

13. [2018-2021] «Innovative Medical Tourism Strategy (In-MedTouR)», Interreg V/A Greece-Italy (EL-IT) 2014-2020.

14. [2019-2021] «Regio\_Gnosis», Support for information measures relating to the EU Cohesion policy, DG-REGIO, EU.

- [06/1993-3/2001] Employer: Self employed, Duties: Design and implementation of various information systems. Consultancy for computer technologies in Patras Municipality and in Patras Port Authorities.
- [1991-1992] Employer: Center for Contemporary Music Research, Duties: Design and implementation of information systems.  
Research projects:
  1. An electronic data processing system for Greek Ancient Music Resources.
  2. An application for supporting music composition in NeXT computer system.
- [6/1990-12/1994] Employer: Technelectron Inc., Duties: computer assembly and software installation.

## **ADDITIONAL SKILLS & ACHIEVEMENTS**

### **IT skills:**

- Computer Operating Systems: UNIX, VMS, DOS-WINDOWS (user & administrator).
- Programming Languages: BASIC, FORTRAN, PASCAL, C, C++, LISP, PROLOG, OBJECTIVE C (NeXT), SMALLTALK, VISUAL BASIC.
- Database Management Systems: dBase, CLIPPER, OMNIS, RDB, ORACLE, INGRES.
- Computer Systems: PC, Apple-Macintosh, SUN, DEC.
- Applications: MICROSOFT WORD-EXCEL-POWERPOINT-ACCESS-PROJECT, HTML
- Business Software: Data Warehousing Systems (Oracle Express Server), OLAP Tools (Oracle Sales & Financial Analyzer, Oracle Express Analyzer & Objects, MicroStrategy DSS Agent & Executive, Microsoft Data Analyzer), Workflow Systems (Ultimus, JetForm), Simulation (Extend), ERP/CRM (Oracle, Microsoft Navision), Balanced Scorecard (Oracle Balanced Scorecard), Activity Based Costing (ARIS).

### **Other:**

- Reviewer: a lot of international scientific international journals and conferences.
- Program Committee member:
  1. IEEE International Conference on Tools with Artificial Intelligence 1999, 2000, 2002 and 2007,
  2. 3<sup>rd</sup>, 5<sup>th</sup> and 6<sup>th</sup> Hellenic Conference on Artificial Intelligence, 2003, 2008, 2010,
  3. Athens Tourism Symposium 2010, 2011.

4. 6th International Workshop on Combinations of Intelligent Methods and Applications (CIMA 2016)

- Vice chair for special track “Integrated Intelligent Systems” in 15<sup>th</sup> and 16<sup>th</sup> FLAIRS 2002 and FLAIRS 2003.
- Associate Editor: International Journal on Artificial Intelligence Tools

**Languages:**

- Greek (mother tongue), English (intermediate).

**Interests:**

- percussion-drums, photo, scuba diving, kayaking

## **Publications**

### **Conference Publications**

- 1) B. Boutsinas, A. Kameas, G. Pavlides, "PIGES/A: An Electronically Data Processing system concerning the ancient Greek music sources", International Conference on Computer Music, Delphi, 1992, pp 1-12
- 2) B. Boutsinas, G. Pavlides, "Belief Revision in nonmonotonic multiple inheritance using Weighted Inheritance Networks", AI'93 Workshop on "Belief revision: Bridging the gap between theory and practice", Australia, Melbourne, 1993, pp 141-155
- 3) B. Boutsinas, “‘EasyTeach’: a system supporting teaching”, 1<sup>st</sup> Greek Conference on “Teaching mathematics & computers”, 1993, pp 253-268 (**in Greek**)
- 4) B. Boutsinas, G. Pavlides, "Weighted Inheritance Networks: An Introduction", 13th IASTED International Conference Applied Informatics, Austria, Innsbruck, 1995, pp 174-176
- 5) B. Boutsinas, Y. C. Stamatiou, "A Knowledge-Based Approach to Recognizing Polyhedral Scenes", 13th IASTED International Conference Applied Informatics, Austria, Innsbruck, 1995, pp 160-163
- 6) B. Boutsinas, Y. C. Stamatiou, G. Pavlides, "Parallel Reasoning using Weighted Inheritance Networks", 1995 IJCAI Workshop on Parallel Processing for Artificial Intelligence, Montreal, Canada, 1995, pp 29-39
- 7) B. Boutsinas, "On Managing Non-monotonic Transitive Relationships", 8th IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Toulouse, France, 1996, pp 374-382
- 8) B. Boutsinas, S. Papadimitriou, G. Pavlides, "Automatic analysis, verification and synthesis of rule-based real-time decision making systems with Machine Learning assistance", in Perspectives Of System Informatics, Lecture Notes in Computer Science, 1181, 1996, pp 135-145
- 9) G. Andreopoulos, C. Stathelakos, A. Gelaidis, B. Boutsinas, G. Pavlides, "Visual Teacher: designing tests using programming by demonstration", 6<sup>th</sup> Greek Conference in Computer Science, 1997 (**in Greek**).
- 10) B. Boutsinas, M.N. Vrahatis, "Nonmonotonic Connectionist Expert Systems", 2nd IMACS CSC'98, Athens, 1998, pp 404-412

- 11) B. Boutsinas, M.N. Vrahatis, "Data Mining using Nonmonotonic Connectionist Expert Systems", IMACS/IEEE CSCC'99, Athens, 1999, pp 77-84
- 12) T. Gnardellis, B. Boutsinas, "On Experimenting with Data Mining in Education", Proceedings of 2nd Panhellenic Conference with International Participation, "Information and Communication Technologies in Education", pp 275--283, Patras, October 2000
- 13) A.V. Adamopoulos, B. Boutsinas, M.N. Vrahatis, P. Anninos, "Analysis of Normal and Pathological Fetal Magnetocardiograms Using Clustering Algorithms", Proceedings of European Symposium on Intelligent Technologies, Hybrid Systems and their implementation on Smart Adaptive Systems (eunit 2001), Special Session - Adaptive Systems and Hybrid CI in Medicine, December 2001, Tenerife, Spain
- 14) A.V. Adamopoulos, P. Anninos, B. Boutsinas, M.N. Vrahatis, , "Analysis of Epileptic Magnetoencephalogram Dynamics through Clustering Algorithms", Proceedings of the 14th International Conference on Digital Signal Processing (DSP2002), Santorini, Greece, July , 2002, pp. 607-610.
- 15) P. Alevizos, B. Boutsinas, D. Tasoulis, M.N. Vrahatis, "Improving the Orthogonal Range Search k-windows Algorithm", Proceedings of the 14th IEEE International Conference on Tools with Artificial Intelligence, pp 239-245, 2002
- 16) D. Plotas, D. Tasoulis, B. Boutsinas, "Are the Iliad and Odyssey each work of a single poet? " 2nd World Congress "Ancient Greece and the Modern World", July, Ancient Olympia, Greece, 2002, pp. 617-623
- 17) H. Kostakis, C. Sarigiannidis, B. Boutsinas, N. Varvakis, V. Tampakas, "Integrating Activity-Based Costing with Simulation Techniques and Data Mining", 18<sup>th</sup> Conference of Hellenic Operation Research Society "Planning, Information Retrieval and Knowledge Management", 2006, pp. 185-194.
- 18) H. Kostakis, L. Kounis, B. Boutsinas, "A practical study to applying location analysis in the health sector", 21st Conference of Hellenic Operation Research Society, 2009 **(in Greek)**.
- 19) D.K. Tasoulis, P. Alevizos, B. Boutsinas, M.N. Vrahatis, "Parallel unsupervised k-windows: an efficient parallel clustering algorithm", 7th International Conference Parallel Computing Technologies (PaCT-2003), Lecture Notes in Computer Science, LNCS 2763, V. Malyshev ed., Springer-Verlag, Berlin Heidelberg, Germany, 2003, pp.336-344.
- 20) N. Mastroyannis, B. Boutsinas, I. Giannikos, "Extending Outranking Relations using Data Mining Classification techniques", 20th European Conference on Operational Research, Rhodes, Greece, 2004.
- 21) B. Boutsinas, G. Antzoulatos, P. Alevizos "A Novel Classification Algorithm Based On Clustering", 1st International Conference from Scientific Computing to Computational Engineering, Athens, Greece, 2004.
- 22) B. Boutsinas, I.X. Tsekouronas, "Splitting data in decision trees using the new 'False-Positives' criterion", 3rd Hellenic Conference on Artificial Intelligence, in 35% top-scored papers published in Lecture Notes in Artificial Intelligence, LNAI 3025, Springer Verlag, 2004, pp.174-182.
- 23) D. Heather, J. Pyrah, K. Pyrah, B. Boutsinas, R. Jacob, "Intelligent Solutions, Evidence Based Practice And Long Term Support", Modern Approaches in Learning Disabilities 5th Annual Conference, Exeter, UK, April, 2005.
- 24) H. Kostakis, C. Sarigiannidis, B. Boutsinas, K. Varvakis, V. Tampakas, "Integrating Activity-Based Costing with Simulation Techniques and Data

- Mining”, 18TH Conference of Hellenic Operation Research Society, pp. 185-194, 2006 (in Greek).
- 25) B. Boutsinas, Y. Nasikas, "Document Clustering based on Association Rule Mining", International Conference of Computational Methods in Sciences and Engineering 2006 (ICCMSE 2006), Lecture Series on Computer and Computational Sciences, Brill Academic Publishers, Vol. 7, pp.58-61, 2006.
- 26) N. Mastrogiannis, G. Antzoulatos, B. Boutsinas, I. Giannikos “A New Clustering Heuristic for the Set Covering Problem”, Conference of the European Working Group on Location Analysis, Estoril, Portugal, February 2007.
- 27) B. Boutsinas, «Applying methodologies for analyzing large data sets to Decision Support in business», 2nd Hellenic CRM FORUM, ([www.crmforum.gr](http://www.crmforum.gr)), Athens, March, 2007 (in Greek).
- 28) N. Mastrogiannis, I. Giannikos, B. Boutsinas, “A New Clustering Heuristic for solving the Set Covering Problem”, 22nd Conference on Operational Research (EURO XXII), Prague, Czech Republic, July 2007.
- 29) H. Kostakis, L. Kounis, B. Boutsinas, “A practical study to applying location analysis in the health sector”, 21TH Conference of Hellenic Operation Research Society, 2009 (in Greek).
- 30) C. Tatsiopoulos, B. Boutsinas, “Ontology Mapping based on association rule mining”, 11th International Conference on Enterprise Information Systems, Milan Italy, May, 2009.
- 31) C. Tatsiopoulos, B. Boutsinas, K. Sidiropoulos, “On Aligning Interesting Parts of Ontologies”, International Conference on Knowledge Engineering and Ontology Development (KEOD 2009), October, Portugal, 2009.
- 32) C. Halkiopoulos, B. Boutsinas, “Music Representation for Analysis using Data Mining”, Music Theory and Analysis - Seventh Annual Conference of Music Theory Department, May, Belgrade, 2009.
- 33) M. Rogakou, K. Christou, B. Boutsinas, “On Representing Principles and Inspection Techniques of Quality Management Systems”, 3rd Conference of Union of Hellenic Scientists for Prototyping and Standardization, November, 2010 (in Greek).
- 34) G. Ravasopoulos, I. Papaioannou, B. Boutsinas, “On Line Analytical Processing for Decision Support of Coordinators of Environmental Education in Regional Directorates of Education”, 5th National Conference of Educators for Environmental Education, Ioannina, Greece, November, 2010 (in Greek).
- 35) B. Boutsinas, I. Giannikos, “Using Clustering Heuristics to Solve Demand Covering Models”, 19th Meeting of the European Working Group in Location Analysis, Nantes, 12-14 October, 2011.
- 36) G. Ravasopoulos, B. Boutsinas, “Applying OLAP to Decision Support for managers of secondary schools”, 6th Hellenic Conference of IT secondary teachers «IT and New School», Patras, March, 2012 (in Greek).
- 37) I. Giannikos, B. Boutsinas, A. Panteli, "Using Clustering Heuristics to Solve a Family of Demand Covering Models", 25th European Conference on Operational Research, Vilnius, Lithuania, 2012.
- 38) G. Ravasopoulos, B. Boutsinas, “Applying OLAP to Decision Support for Environmental Education in secondary schools”, Workshop for Environmental Education in secondary schools of Western Greece, Patras, December, 2012 (in Greek).

- 39) B. Boutsinas G. Ravasopoulos, D. Katsanta, A. Panteli, «PAVEFS – a system for supporting people with ASD based on an Intelligent Information System», 4th Hellenic Autism Conference, Thessalonica, October 2013 (in Greek).
- 40) B. Boutsinas, «PAVEFS: an Intelligent Decision Support system for ASD», International Conference «The puzzle of Autism ten years after ... advances and perspectives», Larissa, May, 2015 (in Greek).
- 41) B. Boutsinas, G. Ravasopoulos, D. Katsanta, A. Panteli, «Deliverables of the project PAVEFS, a system for supporting people with ASD based on an Intelligent Information System», 5th Hellenic Autism Conference, Athens, October, 2015 (in Greek).
- 42) B. Boutsinas, «Intelligent Information Systems in e-health: the case of PAVEFS», 25th Hellenic Autism Conference of Pan-Hellenic Deafness & Speech Therapy Organisation, Kalamata, November, 2015 (in Greek).
- 43) A.E. Politis, C. Sarigiannidis, B. Boutsinas, «The Environmental Aspects of Packaging – Implications for Marketing Strategies», International Conference on Strategic Innovative Marketing and Tourism (ICSIMAT 2018), Amarilia Hotel, Athenian Riviera, Greece, October 17-20, pp. 965-972, 2018 (<http://www.icsimat.com>)
- 44) Ch. Sarigiannidis, B. Boutsinas, A.E. Politis, «Sustainability and Environment–A Comparative Analysis of MFCA, ABC and EFCA Systems in Environmental Management Accounting (EMA)», GECAMB 2018 International Conference, The Portuguese Centre for Social and Environmental Accounting Research, 8-9 November 2018, Setúbal, Portugal, <http://www.gecamb.esce.ips.pt/pt>
- 45) Dimou, E., Halkiopoulos, C., Giotopoulos, K., Antonopoulou, H., Boutsinas, B. (2019). Web Data Analytics in GDPR Compliance in Greek Hotel Industry and the Impact on Marketing. 7th International Conference on Contemporary Marketing Issues (ICCMi) 2019, 10-12 July, Heraklion, Crete, Greece. [Accepted for Oral Presentation after Double Blind review] Available from: <https://doi.org/10.5281/zenodo.5272135>
- 46) A. Panteli, B. Boutsinas, «Improvement of similarity-diversity trade-off in recommender systems based on a facility location model», 10th International Conference on Information, Intelligence, Systems and Applications (IISA2019), Patras, Greece, July 15-17, 2019, (10.1109/IISA.2019.8900661).
- 47) C. Halkiopoulos, E. Dimou, A. Kompothrekas, G. Telonis, B. Boutsinas, “The E-Tour Facilitator Platform Supporting an Innovative Health Tourism Marketing Strategy”. (7th International Conference of IACuDiT, Hydra, Greece, 2020). In: Katsoni V., van Zyl C. (eds) Culture and Tourism in a Smart, Globalized, and Sustainable World. Springer Proceedings in Business and Economics. Springer, Cham. [https://doi.org/10.1007/978-3-030-72469-6\\_39](https://doi.org/10.1007/978-3-030-72469-6_39), 2021.
- 48) C. Sarigiannidis, C. Halkiopoulos, K. Giannopoulos, F. Giannopoulou, A.E. Politis, B. Boutsinas, K. Kollias, “Do Hotels care? A Proposed Smart Framework for the Effectiveness of an Environmental Management Accounting System based on Business Intelligence Technologies”, (7th International Conference of IACuDiT, Hydra, Greece, 2020). In: Katsoni V., van Zyl C. (eds) Culture and Tourism in a Smart, Globalized, and Sustainable World. Springer Proceedings in Business and Economics. Springer, Cham. [https://doi.org/10.1007/978-3-030-72469-6\\_41](https://doi.org/10.1007/978-3-030-72469-6_41), 2021.
- 49) A. Panteli, A. Kompothrekas, K. Chalkiopoulos, B. Boutsinas, “An Innovative Recommender System for Health Tourism”, (7th International Conference of

IACuDiT, Hydra, Greece, 2020). In: Katsoni V., van Zyl C. (eds) Culture and Tourism in a Smart, Globalized, and Sustainable World. Springer Proceedings in Business and Economics. Springer, Cham. [https://doi.org/10.1007/978-3-030-72469-6\\_42](https://doi.org/10.1007/978-3-030-72469-6_42), 2021.

50)E. Gkintoni, B. Boutsinas, E. Kourkoutas, «Developmental Trauma and Neurocognition in young adults: A Systematic Review», 14th International Conference on Education and New Learning Technologies, Palma, Spain, pp. 5656-5662, 2022

51)Kakoleres, G., Boutsinas, B. (2022). A Conceptual Framework for applying Social Signal Processing to decision-making in management. In Proceedings of 7th Business & Entrepreneurial Economics Conference, Plitvice Croatia, pp. 123-130, 2022.

52)Katsouda, M., Boutsinas, B. (2023). Detecting extreme values in time series based on bar visibility, In Proceedings of 7th Business & Entrepreneurial Economics Conference, Brijuni Croatia, 2023

### **Journal Publications**

- 1) B. Boutsinas, Y. C. Stamatiou, G. Pavlides, "Massively Parallel Support for Nonmonotonic Reasoning", "Parallel Processing for Artificial Intelligence", Series Machine Intelligence and Pattern Recognition 20, Elsevier Science Publishers B.V. (North-Holland), J. Geller, H. Kitano, C. Suttner (eds.), pp 41-67, ISBN 0 444 82486 3, 1997.
- 2) B. Boutsinas, M.N. Vrahatis, "Artificial Nonmonotonic Neural Networks", Artificial Intelligence 132(1), 2001, Elsevier Science Publishers B.V., pp 1-38
- 3) M.N. Vrahatis, B. Boutsinas, P. Alevizos, G. Pavlides, "The new k-windows algorithm for improving the k-means clustering algorithm", Journal of Complexity, Academic Press, vol. 18, 2002, pp. 375-391
- 4) B. Boutsinas, T. Gnardellis, "On Distributing the clustering process", Pattern Recognition Letters, Elsevier Science Publishers B.V., vol. 23, no. 8, 2002, pp. 999-1008.
- 5) B. Boutsinas, "Accessing Data Mining Rules through Expert Systems", International Journal of Information Technology & Decision Making, 1(4), World Scientific Publishing Company, pp. 657-672, 2002.
- 6) B. Boutsinas, G.C. Meletiou, M.N. Vrahatis, "Mining Encrypted Data" in «SUPPLY CHAIN AND FINANCE», Series on Computers and Operations Research – Vol. 2, P. M. Pardalos, A. Migdalas, G. Baourakis (eds), pp. 273-281, World Scientific, ISBN 981-238-717-X, 2004.
- 7) B. Boutsinas, G. Prassas, G. Antzoulatos, "A methodology for scaling up classification algorithms", International Journal on Artificial Intelligence Tools, 13(3), World Scientific Publishing Company, pp. 623-639, 2004.
- 8) B. Boutsinas, "Incorporating Common Sense into a Machine Learning System", International Journal of Computational Cognition, (invited paper), Vol.3, No.3, pp. 1-17, 2005.
- 9) B. Boutsinas, "On defining OLAP-formulations", IMA Journal of Management Mathematics, Oxford University Press, 16(4), pp. 339-354, 2005.



- 10) B. Boutsinas, D. Tasoulis, M.N. Vrahatis, "Estimating the number of clusters using a windowing technique", *Pattern Recognition and Image Analysis*, 16(2), pp. 143-154, 2006.
- 11) H. Kostakis, B. Boutsinas, D.B. Panagiotakos, C. Pitsavos, C. Stefanadis, "The use of Boolean association rules to evaluate dependencies between the biological factors levels and genes, in human; an application to the effect of a mutation on serum lipid profile in healthy individuals", *Far East Journal of Theoretical Statistics*, 19(1), 2006, pp. 1-11.
- 12) D.B. Panagiotakos, H. Kostakis, B. Boutsinas, "The use of classification algorithms to assess the likelihood of having a chronic disease", *JP Journal of Biostatistics*, 1(1), 2007, pp. 1-12.
- 13) B. Boutsinas, S. Athanasiadis, "On Merging Classification Rules", *International Journal of Information Technology & Decision Making*, World Scientific Publishing Company, 7(3), 2008, pp. 431-450.
- 14) H. Kostakis, C. Sarigiannidis, B. Boutsinas, K. Varvakis, V. Tampakas, "Integrating Activity-Based Costing with Simulation Techniques and Data Mining", *International Journal of Accounting and Information Management*, 16(1), 2008, pp. 25-35.
- 15) B. Boutsinas, C. Siotos, A. Gerolymatos, "Distributed mining of association rules based on reducing the support threshold", *International Journal on Artificial Intelligence Tools*, World Scientific Publishing Company, 17(6), 2008, pp. 1109-1129.
- 16) H. Kostakis, B. Boutsinas, D.B. Panagiotakos, L. Kounis, "A Computational algorithm for the risk assessment of developing Acute Coronary Syndromes, using OLAP (On Line Analytical Process) methodology", *International Journal of Knowledge Engineering and Soft Data Paradigms*, 1(1), 2009, pp. 85-99.
- 17) B. Boutsinas, T. Papastergiou, "On clustering tree structured data with categorical nature", *Pattern Recognition*, Elsevier Science, 41(12), 2008, pp. 3613-3623.
- 18) N. Mastroyannis, B. Boutsinas, I. Giannikos, "A method for improving the accuracy of data mining classification algorithms based on outranking relations", *Computers & Operations Research*, Pergamon-Elsevier Science, 36(10), pp. 2829-2839, 2009.
- 19) N. Mastroyannis, I. Giannikos, B. Boutsinas, G. Antzoulatos, "CL.E.KMODES: A Modified K-Modes Clustering Algorithm", *Journal of the Operational Research Society*, 60(8), pp. 1085-1095, 2009.
- 20) C. Tatsiopoulou, B. Boutsinas, "Automatic knowledge exchanging between tourists via mobile devices", *Journal of Hospitality and Tourism Technology*, 1(2), pp. 163-173, 2010.
- 21) C. Tatsiopoulou, B. Boutsinas, "On Exchanging Ontologies", *International Journal of Information Engineering (IJIE)*. Vol. 2, No1, 2012, pp.38-47.
- 22) I. Zantzou, B. Boutsinas, «Ex post Evaluation of operation plan of Trikala Hospital», *Health Review*, MediForce, Athens, 22(133), pp. 11-15, 2011 (**in Greek**).
- 23) C. Halkiopoulou, B. Boutsinas, "Automatic Interactive Music Improvisation based on Data Mining", *International Journal on Artificial Intelligence Tools*, World Scientific Publishing Company, 21(4), 2012, pp.1250016/1-24.

- 24) I. Zantzou, B. Boutsinas, «Perseus Plan in Hospitals: additions and extensions», Health Review, MediForce, Athens, 24(141), pp. 5-10, 2013 (**in Greek**).
- 25) B. Boutsinas, “A new biclustering algorithm based on association rule mining”, International Journal on Artificial Intelligence Tools, World Scientific Publishing Company, 22(3), 2013, pp. 1350017.
- 26) B. Boutsinas, “Machine-part cell formation using biclustering”, European Journal of Operational Research, 230, 2013, pp. 563-572.
- 27) B. Boutsinas, E. Gkiza, “Visualization of data mining rules using OLAP”, International Journal of Information Engineering, 3(3), pp. 91-102, 2013.
- 28) K. Giannopoulos, B. Boutsinas, “Tourism Satellite Account Support Using Olap”, Journal of Travel Research, June 19, pp. 1-18, 2014.
- 29) Anteope Panteli, B. Boutsinas, Ioannis Giannikos, “On set covering based on biclustering”, International Journal of Information Technology & Decision Making, 13(5), pp. 1029-1049, 2014.
- 30) A. Panteli, B. Boutsinas, I. Giannikos, “On solving the multiple p-median problem based on biclustering”, Operational Research - An International Journal, February 2019, <https://doi.org/10.1007/s12351-019-00461-9>, (IF=1816).
- 31) A.Tatsiopoulou, C.Tatsiopoulos, B.Boutsinas, “Providing Underlying Process Mining in Gamified Applications – An Intelligent Knowledge Tool for Analyzing Game Player’s Actions”, Advances in Science, Technology and Engineering Systems Journal, 4(4), pp. 212-220, 2019 DOI: 10.25046/aj040426.
- 32) G. Kaoura, K. Kovas, B. Boutsinas, "Ontology-Based Case Retrieval in an E-Mental Health Intelligent Information System", in "Ontology-Based Information Retrieval for Healthcare Systems" V. Jain, R. Wason. J.M. Chatterjee, D-N. Le (Eds), Scrivener Publishing LLC, pp. 167-191, 2020, DOI:10.1002/9781119641391
- 33) A. Panteli, A. Kompothrekas, C. Halkiopoulos, B. Boutsinas, “An innovative recommender system for Health Tourism”, in “Culture and Tourism in a Smart, Globalized and Sustainable World”, Springer International Publishing, 2021.
- 34) C. Sarigiannidis, C. Halkiopoulos, K. Giannopoulos, F. Giannopoulou, A.E. Politis, B. Boutsinas, K. Kollias, “Do Hotels care? A Proposed Smart Framework for the Effectiveness of an Environmental Management Accounting System based on Business Intelligence Technologies in “Culture and Tourism in a Smart, Globalized and Sustainable World”, Springer International Publishing, 2021.
- 35) A.Panteli, B.Boutsinas, "Improvement of similarity-diversity trade-off in recommender systems based on a facility location model", Neural Computing and Applications, 2021.
- 36) A. Kompothrekas, B. Boutsinas, K. Kollias, “Topological and dynamical properties of the network of shareholders in S&P 500 companies based on graph databases”, Journal of International Money, Banking and Finance, 3(1), pp. 1-12, 2022.

- 37)A. Panteli, B. Boutsinas, “Addressing the Cold-Start Problem in Recommender Systems Based on Frequent Patterns”, *Algorithms*, 16(4):182, 2023. <https://doi.org/10.3390/a16040182>

### **Books**

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