C U R R I C U L U M V I T A E

(1 page summary / contents)

NAME	Vassilis G. Kaburlasos
BIRTH DATE	24 September 1963
POSITION	Tenured Full Professor on “Computational Intelligence”
MAILING ADDRESS	Department of Computer Science International Hellenic University (IHU) GR-65404, Kavala Greece
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STATEMENT OF INTEREST	Human Intelligence modeling and Human-Machines Interaction (HMI). Applications toward the development of competitive industrial products and services. Global scientific actions and initiatives.
EDUCATION	• Diploma in Electrical and Computer Engineering, National Technical University of Athens, Greece (October 1986) • M.Sc. in Electrical Engineering, University of Nevada, Reno, USA (December 1989) • Ph.D. in Electrical Engineering, University of Nevada, Reno, USA (May 1992)
EXPERIENCE	***Research* (*basic & applied*)** ***Teaching*** ***Creative Activities***
LIST OF PUBLICATIONS	Publications in books, journals, conferences, theses, technical reports.
IMPACT	Third party citations, *h-index* (Scopus, Google Scholar).

EXPERIENCE

Research

Basic Research

Introduced the Lattice Computing (LC) information processing paradigm for rigorous modeling based on disparate types of data including numerical and/or non-numerical data such as real number matrices, functions, sets, set partitions, logic values, (binary) relations, strings of symbols, etc. Development of (parametric) computational intelligence modeling techniques for clustering /classification /regression in robots and other intelligent systems.

Applied Research

(Participation in Research Projects)

#1. ISDN: Simulation of different data routing algorithms for an Integrated Services Digital Network (ISDN). National Technical University of Athens, Greece. Spring & Summer 1986, as a student, during diploma thesis.

#2. WHIPLASH INJURY DIAGNOSIS: Development of image processing and neural computing techniques for the diagnosis of whiplash injury on thermal (infrared) images. University of Nevada, Reno. Sep. 1988 - May 1989, as a research assistant, during Master's Thesis. Funded by Computerized Thermography Centers/ IFEX Inc., New York, NY.

#3. MEDICAL DIAGNOSIS: Development and application of neural network techniques for the discovery of unanticipated and emerging disease and medical practice patterns. University of Nevada, Reno. Jun. 1991 – Dec. 1991, as a research assistant, during Ph.D. dissertation. Funded by Washoe Medical Center, Reno, Nevada.

#4. MITOS project (BE7470): Research and development of intelligent sensing and control strategies for mechatronics tools in four surgical procedures. Automation & Robotics Laboratory (ARL), Aristotle University of Thessaloniki, Greece. Mar. 1994 – Feb. 1997, as a research associate. Funded by the European Union in the context of Brite Euram (BE) project BE7470 (MITOS project).

#5. SET MARKS: Information processing technologies. Department of Electrical & Computer Engineering, Aristotle University of Thessaloniki, Greece. May 1997 – Dec. 1997, as a research associate. Funded by the European Union.

#6. GENOS: Research regarding a system for an optimal management of energy resources. Department of Electrical & Computer Engineering, Aristotle University of Thessaloniki, Greece. Mar. 1997 – Dec. 1997, as a research associate. Funded by the European Union.

#7. MTS (PL 950317): A human network for linking industrial, medical, and research centers of the European Union towards the development of mechatronic tools in medical surgeries. Mar. 1996 – Feb. 1999, as a research associate. Funded by the European Union.

#8. ACES: Development and Internet application of the interactive Automatic Control Educational Software (ACES). ACES involved hypertext and intelligent modules for both distant self-learning and self-evaluation in two undergraduate *Automatic Control* courses. Department of Electrical & Computer Engineering, Aristotle University of Thessaloniki, Greece. Jan. 1998 – May 2000, as a research associate. Funded by the General Secretariat of Research and Technology of Greece.

#9. VENFLEX (CT98-5312): Robotic vision for recognition and manipulation of flexible materials. Automation & Robotics Laboratory (ARL), Aristotle University of Thessaloniki, Greece. Jan. 2000 – Jul. 2000, as a research associate. Funded by the European Union.

#10. KTESIBIOS: A human network linking research centers, universities, and commercial companies in Greece towards the dissemination of information technologies for industrial automation and production. Jun. 2000 – Jun. 2001, as a research associate. Funded by the General Secretariat of Research and Technology of Greece.

#11. HSU: Research and development of novel computational intelligence techniques for prediction of sugar production from sugar beets cultivation data. Automation & Robotics Laboratory (ARL), Aristotle University of Thessaloniki, Greece. Jul. 2000 – Jun. 2001, as a research associate. Funded by Hellenic Sugar Industry (HSU), Greece.

#12. Project title: Enhancement of studies in informatics (in Greek)
Subproject title: Development and Internet application of the interactive Platform for Adaptive and Reliable Evaluation of Students (PARES)
Principal Investigator: Professor Vassilis Kaburlasos
Subproject budget: €80,000

Funded from: The 3rd European framework programme via the Operational Programme in Education and Initial Vocational Training II
Start - end dates: 1 May 2003 – 31 August 2008

#13. Project title: Combined Research and Curriculum Development (CRCD) in "Machine Learning Advances for Engineering Education"
Principal Investigator: Professors Michael Georgiopoulos and Erol Gelenbe, University of Central Florida, Orlando, USA
Budget: $440,851
Funded from: National Science Foundation (NSF), USA
Start - end dates: June 2003 - June 2005
Role: Academic Affiliate

#14. Project title: Archimedes-I (in Greek)
Subproject title: Parallel, content based cross-language information retrieval (PA_CO_CLIR) (in Greek)
Principal Investigator: Professor Christos Skourlas, Department of Informatics, Technological Educational Institution of Athens
Budget: €52,000
Funded from: The 3rd European framework programme via the Operational Programme in Education and Initial Vocational Training II
Start - end dates: 1 January 2004 - 31 December 2006
Role: Investigator using Intervals' Numbers (INs)

#15. Project title: Archimedes-I (in Greek)
Subproject title: Software for simulating a human-operator in industrial production (SHOP) using neuro-fuzzy models based on disparate types of data (in Greek)
Principal Investigator: Professor Vassilis Kaburlasos
Budget: €52,000
Funded from: The 3rd European framework programme via the Operational Programme in Education and Initial Vocational Training II
Start - end dates: 1 January 2004 - 30 June 2007

#16. Project title: Design, development and application of an "intelligent" electronic measurement device for measuring temperature and humidity in a processing (heating) dry fruits oven (D-FRUIT) (in Greek)
Principal Investigator: Professor Vassilis Kaburlasos
Budget: €2,000
Funded from: "KARPOS dry fruit company", via the Center for Technological Research of Eastern Macedonia & Thrace, Kavala, Greece
Start - end dates: 1 July 2007 - 31 October 2007

#17. Project title: Development and application of techniques for recognizing digital images using Fuzzy Interval Numbers (FINs) (IMAGFINs) (in Greek)
Principal Investigator: Professors Stelios Papadakis and Vassilis Kaburlasos
Budget: €3,000
Funded from: The Research Commission of the Technological Educational Institution of Kavala, Greece
Start - end dates: 1 September 2008 - 31 May 2009

#18. Project title: International collaboration to study oceanic currents phenomena and climate changes through cross-mining and retrieving multispectral satellite image and sensor network data (CDI)
Principal Investigator: Professor James Z. Wang, The Pennsylvania State University, USA
Budget: $650,000
Funded from: National Science Foundation (NSF), USA
Start - end dates: September 2010 - June 2015
Role: Participant expert on clustering, classification and regression in graph processing and data mining applications

#19. Project title: Development and application of novel techniques for the improved industrial production of beverages (EXTRA) (in Greek)
Principal Investigator: Professor Vassilis Kaburlasos
Budget: €7,000 + €1,610 (VAT)
Funded from: Innovation coupon no. 16106672-01-000115 (of the Greek government), via the Center for Technological Research of Eastern Macedonia & Thrace, Kavala, Greece
Start - end dates: 15 April 2011 - 15 August 2011

#20. Project title: Computational intelligence techniques for brain imaging and the neurosciences (MICINN) (in Spanish)
Principal Investigator: Professor Manuel Graña, University of the Basque Country, San Sebastian, Spain
Budget: €108,900
Funded from: Ministry of Science and Innovation, Government of Spain
Start - end dates: 1 January 2012 - 31 December 2014
Role: Research Associate on the development of novel Lattice Computing techniques

#21. Project title: Archimedes-III (in Greek)
Subproject title: Secure Retrieval and Dissemination of Information (text and image) in Distributed and Wireless specific purpose Environments (SECRET_DIDWE) (in Greek)
Principal Investigator: Professor Christos Skourlas, Department of Informatics, Technological Educational Institution of Athens
Budget: €100,000
Funded from: Operational Programme "Education and Lifelong Learning"
Start - end dates: 1 March 2012 - 31 August 2014
Role: Applications using Intervals' Numbers (INs)

#22. Project title: Writing an electronic textbook (in Greek) entitled "Introduction to Computational Intelligence – A Holistic Approach" (Kallipos action)
Principal Investigator: Professor Vassilis Kaburlasos, Department of Computer and Informatics Engineering, Eastern Macedonia and Thrace Institute of Technology (EMaTTech)
Budget: €10,000
Funded from: Operational Programme "Education and Lifelong Learning" the Greek National Strategic Reference Framework (NSRF) 2007-2013
Start - end dates: 7 Οκτωβρίου 2014 – 30 Σεπτεμβρίου 2015
Role: Main Author (the other author is George Papakostas)

#23. Project title: Travel Grants for Scoping Research Labs Twinning opportunities by DRAGON-STAR
Principal Investigator: Professor Vassilis Kaburlasos
Budget: €3,500
Funded from: European Commission Framework Programme FP7
Start - end dates: 21 January 2015 - 30 June 2015
Role: In charge of an initiative toward establishing a Sino-European research lab entitled "Logic-Based Methods in Internet-of-Things (IoT) Applications" in SouthWest Jiaotong University, Chengdu, Sichuan, China.

#24. Project title: Program of scholarships to 15 promising young scientists (in Greek)
Coordinator: Professor Athanasios Mitropoulos, Dean of the Eastern Macedonia and Thrace Institute of Technology (EMaTTech)
Budget: €900,000
Funded from: The Stavros Niarchos Foundation
Subproject title: Special Education Robot Teaching Assistant (EduBot)
Budget: €60,000
Supervisor: Professor Vassilis Kaburlasos
Start - end dates: 1 October 2016 - 30 September 2018
Role: Supervisor of the scholarship earned by Dr. Angelos Amanatiadis

#25. Project title: Cyber Physical Systems for PEdagogical Rehabilitation in Special EDucation (CybSPEED)
Coordinator: Professor Manuel Graña, University of the Basque Country, San Sebastian, Spain
Budget: €1,296,000
Funded from: European Commission Horizon 2020, H2020-MSCA-RISE-2017 (Marie Skłodowska-Curie Research and Innovation Staff Exchange) Project no. 777720
HUMAIN-Lab budget: €283,500
Participant coordinator: Professor Vassilis Kaburlasos
Start - end dates: 1 December 2017 – 31 July 2022
Role: Coordinator of Work Package WP#2 "Research on Analysis, Modelling and Synthesis of CPSs for Pedagogical Rehabilitation in Education" regarding the content of all the 288 secondments, where 288*€4,500 = €1,296,000 and €4,500 is the monthly cost per secondment.

#26. Project title: Increasing the well being of the population by RObotic and ICT based iNNovative educatIon (RONNI)
Coordinator: Associate Professor Snezhana Kostova, Institute of Robotics, Bulgarian Academy of Sciences, Bulgaria
Budget: €99,009.24 (89,000 from the EU + 10,009.24 co-funding)
Funded from: EU Danube Strategic Project Fund (DSPF), Interreg Danube Transnational Programme (https://www.danube-capacitycooperation.eu/news/1st-call-of-the-dtp-seed-money-facility-is-open-now) Project no. 07_ECVII_PA07_RONNI
HUMAIN-Lab budget: €34,133
Participant coordinator: Professor Vassilis Kaburlasos
Start - end dates: 1 January 2018 – 31 January 2019
Role: Application of robotics, information and communication technologies toward improving general population life quality using innovative educational technologies.

#27. Project title: Social Robots as Tools in Special Education (SRTSE)
Coordinator & Principal Investigator: Professor Vassilis Kaburlasos
Budget: €970,078.15 (Public Expense: €875,385.13)
Funded from: Action "RESEARCH – DEVELOP - INNOVATE", cycle A, Intervention II, Operational Programme "Competitiveness, Entrepreneurship and Innovation", NSRF (National Strategic Reference Framework) of Greece 2014-2020 Project no. T1EDK-00929
Humain-Lab Budget: €328,517.64 (Public Expense: €328,517.64)
Start - end dates: 28 June 2018 – 27 June 2022

#28. Project title: Personalized Optimal Grape Harvest by Autonomous Robot (POGHAR)
Coordinator & Principal Investigator: Professor Vassilis Kaburlasos
Budget: €997,292.70 (Public Expense: €931,167.70)
Funded from: Action "RESEARCH – DEVELOP - INNOVATE", cycle A, Intervention II, Operational Programme "Competitiveness, Entrepreneurship and Innovation", NSRF (National Strategic Reference Framework) of Greece 2014-2020 Project no. T1EDK-00300
Humain-Lab Budget: €554,810.02 (Public Expense: €554,810.02)
Start-end dates: 28 June 2018 - 27 June 2022

#29. Project title: Técnicas avanzadas de análisis e interpretación de datos de etología computerizada: aplicaciones en neuroetología (Advanced techniques for analysis and interpretation of computerized ethology data: applications in neuroetology)
Principal Investigator: Professor Manuel Graña, University of the Basque Country, San Sebastian, Spain

Budget: €200,000
Funded from: Government of the Basque Country, Spain. Project no. IT1284-19
Start - end dates: 2019 - 2021
Role: External collaborator

#30. Project title: Technology for Skillful Viniculture (SVtech)
Coordinator & Principal Investigator: Professor Vassilis Kaburlasos
Budget: €2,869,470.25
Funded from: Action "Reinforcement of the Research and Innovation Infrastructure", Operational Programme "Competitiveness, Entrepreneurship and Innovation", NSRF (National Strategic Reference Framework) of Greece 2014-2020. Project no MIS 5046047.
Start-end dates: 20 November 2020 - 19 May 2023

#31. Project title: Greek Bulgarian Business Partnership by Assistance, Services, Solutions to Promote Open Regions Team (GR BG BUSINESS PASSPORT)
Coordinator: Michalis Chavouzis – Manager, Management and Administration Authority Technopolis Thessalonikis SA
Budget: €645.014,85
Funded from: INTERREG V-A GREECE-BULGARIA 2014-2020, 6th Call
Humain-Lab Budget: €39,056.00
Partner Beneficiary 3 coordinator: Professor Vassilis Kaburlasos
Start - end dates: 1 January 2021 - 31 December 2022
Role: Robotics training seminars in Greek/Bulgarian companies along the border.

#32. Project title: Rewarding the participation of the CybSPEED project in competitive programs of the European Union (Matching Funds)
Principal Investigator: Professor Vassilis Kaburlasos
Budget: €7.968,75
Funded from: Ministry of Development and Investment of Greece, General Secretariat for Research and Innovation
Start - end dates: 1 March 2021 – 30 November 2021

Teaching

#1. Lab *Electrical Communications*: Basic analog and digital telecommunication circuits. National Technical University of Athens, Greece. 12 hours in the lab. Spring 1987, as a student assistant. Funded by the National Technical University of Athens.
#2. Class *Signals & Systems*: Basic information and communication theory, information measure, noise measure, pulse and continuous signal modulation and detection systems. University of Nevada, Reno, class EE381. 40 hours in the classroom. Spring 1988, as a teaching assistant. Funded by the University of Nevada, Reno.
#3. Class *Circuits & Systems*: Analysis and design of linear circuits and systems in the time and frequency domains. University of Nevada, Reno, class EE301. 40 hours in the classroom. Spring 1990, as a teaching assistant. Funded by the University of Nevada, Reno.
#4. Lab *Electrical Projects*: Implementation of measurement techniques on complex systems by electrical means. University of Nevada, Reno, class EE490. 30 hours in the lab. Fall 1990, as a teaching assistant. Funded by the University of Nevada, Reno.
#5. SELETE (continuing education) seminar: Training high school educators. Instruction included the use of the MATLAB software for designing controllers in classic automatic control problems. Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece. 16 hours in the lab per semester. Fall 1998, Spring 1999.
#6. Lab *Intelligent Robots*: Design and application of neural networks in various benchmark pattern recognition problems. Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece. 15 hours in the lab per semester. Fall 1998, 1999, 2000.
#7. Lab *Automatic Control Systems*: Design of linear state feedback control systems. Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki,

Greece. 15 hours in the lab per semester. Spring semesters of 1999, 2000, 2001.
#8. Lab *Classic Automatic Control*: Design of classic feedback control systems. Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece. 20 hours in the lab per semester. Fall semesters of 1999, 2000.
#9. Novel-Technologies Seminar: Topics included 1) Neural Networks, and 2) Neuro-fuzzy controllers. Faculty of Engineering, Aristotle University of Thessaloniki, Greece. 9 teaching hours. May 2000, as a seminar instructor. Funded by the General Secretariat of Research and Technology of Greece, under the human network KTESIBIOS.
#10. Lab *Intelligent Control*: Application of basic neural-fuzzy controller design principles. Department of Automation, Technological Educational Institution of Thessaloniki, Greece. For four semesters, Fall 2000 to Spring 2002, as a visiting professor.
#11. Lab *Artificial Intelligence*: Solving problems with PROLOG language. Department of Informatics, Technological Educational Institution of Thessaloniki, Greece. Fall 2001, Spring 2002, as a visiting professor.
#12. Lab *Computer Programming*: Programming in C++ computer language. Department of Informatics, Technological Educational Institution of Thessaloniki, Greece. Fall 2001, Spring 2002, as a visiting professor.
#13. 2002 - 2019: In charge of teaching four undergraduate courses 1) *Artificial Intelligence*, 2) *Introduction to Computational Intelligence*, 3) *Logic and Logical Programming*, and 4) *Robotics & Human-Machine Interaction*, in the Department of Computer and Informatics Engineering, Eastern Macedonia and Thrace Institute of Technology, Greece, as a tenured Professor.
#14. 2015 - 2018: In charge of teaching the course "Computational Intelligence" in the graduate program entitled "Advanced Technologies in Informatics and Computers" at the Department of Computer and Informatics Engineering, Eastern Macedonia and Thrace Institute of Technology, Greece.
#15. 2019 - : In charge of teaching four undergraduate courses 1) *Artificial Intelligence*, 2) *Introduction to Computational Intelligence*, 3) *Logic and Logical Programming*, and 4) *Robotics & Human-Machine Interaction*, in the Department of Computer Science, International Hellenic University (IHU), Greece, as a tenured Professor.
#16. 2019 - : In charge of teaching the course "Computational Intelligence" in the graduate program entitled "Advanced Technologies in Informatics and Computers" at the Department of Computer Science, International Hellenic University (IHU), Greece.

Creative Activities

Bilateral Educational Exchange

#1. He was selected by the Department of Inter-University Relations of the Greek Ministry for Education, Life-long Learning and Religious Affairs to visit a Belgian Flemish Institution under a Bilateral Educational Program in 2011 Applicants were (a) members of the academy of Athens, (b) higher education teaching and/or administration personnel, and (c) researchers and PhD candidates. A total number of 46 applicants were selected. Prof. Kaburlasos followed an invitation of his Belgian colleague Prof. Da Ruan towards visiting the (a) Belgian Nuclear research Centre (SCK-CEN) at Mol, and (b) Department of Applied Mathematics & Computer Science of Gent University, to deliver a series of lectures and collaborate with other colleagues on issues of a (mathematical) unification in Informatics.

#2. With 30 Greek scientists and/or entrepreneurs, Professor Kaburlasos was proposed by the Greek human network "Praxi" to participate in the "2017 Global Smart Industry Innovation Conference and Global Innovation Technology Transfer Convention" in Beijing, China, 5-6 June 2017 as a member of a Greek delegation toward presenting selected activities of the HUMAIN-Lab he directs. Professor Kaburlasos was one of the 9 Greek scientists and/or entrepreneurs selected by the local Chinese government and attended the conference.

#3. Since the year 2019 the name of professor Kaburlasos is included in the top 2% of researchers worldwide in the field "Artificial Intelligence & Image Processing" according to Mendeley Data, https://doi.org/10.17632/btchxktzyw.3 , http://dx.doi.org/10.17632/btchxktzyw.2

Membership in

#1. Technical Chamber of Greece.
#2. Sigma Xi, the Scientific Research Society (Swiss chapter).
#3. Phi Kappa Phi, the National Honor Society (USA).
#4. Tau Beta Pi, the National Engineering Honor Society (USA).
#5. Eta Kappa Nu, the Electrical Engineering Honor Society (USA).
#6. Delta Phi Alpha, the German Honor Society (USA).

Evaluator

#1. On 2 October 2013 he was invited by the Republic of Cyprus regarding the program "Young Researcher" for the year 2013 to serve as an evaluator with expertise on (a) Computational Neuroscience, (b) Computational Intelligence, (c) Machine Learning.

#2. Since 2013 in charge of the internal evaluation of the Program of Studies of the Department of Computer and Informatics Engineering at the Eastern Macedonia and Thrace Institute of Technology (EMaTTech).

#3. On 6 May 2019 he served as an expert evaluator of proposals submitted in phase B' of the "1st Call for Research Projects of the HFRI (Hellenic Foundation for Research & Innovation) for the support of researchers and the procurement of high valued research equipment" in the scientific area "Engineering Sciences and Technology".

Reviewer in the following SCI (Science Citation Index) journals

#1. IEEE Transactions on Systems, Man and Cybernetics.
#2. IEEE Transactions on Neural Networks and Learning Systems (as well as the former IEEE Transactions on Neural Networks).
#3. IEEE Transactions on Fuzzy Systems.
#4. IEEE Intelligent Systems.
#5. Neural Networks.
#6. Decision Support Systems.
#7. Information Sciences: An International Journal.
#8. Journal of Multiple-Valued Logic and Soft Computing.
#9. Neurocomputing.
#10. Computers and Mathematics with Applications.
#11. Journal of Information Science.
#12. Engineering Intelligent Systems.
#13. IEEE Intelligent Systems.
#14. Neural Network World.
#15. Journal of Mathematical Imaging and Vision.

#16. Neural Computing & Applications.
#17. Mathematical and Computer Modelling.
#18. Soft Computing.
#19. Mathematical Problems in Engineering.
#20. IET Image Processing.
#21. Advances in Fuzzy Systems.
#22. Annals of Mathematics and Artificial Intelligence.
#23. Artificial Intelligence Review.
#24. Information Fusion.
#25. Pattern Recognition Letters.
#26. Sensors.
#27. IEEE Computational Intelligence Magazine.
#28. Computational Intelligence and Neuroscience.
#29. Iranian Journal of Fuzzy Systems.
#30. Complexity.
#31. International Journal of Approximate Reasoning.
#32. Computational Intelligence.
#33. Journal of Intelligent and Fuzzy Systems.
#34. Sensing and Imaging.
#35. Applied Sciences.
#36. Electronics.
#37. The Computer Journal.
#38. Symmetry.
#39. IEEE Transactions on Emerging Topics in Computational Intelligence.
#40. Agronomy.
#41. IEEE Systems Journal.
#42. Future Generation Computer Systems.
#43. Agriculture MDPI.

Book Reviewer

#1. Reviewer of the book: Gerhard X. Ritter, Gonzalo Urcid, Introduction to Lattice Algebra With Applications in AI, Pattern Recognition, Image Analysis, and Biomimetic Neural Networks. August 24, 2021, 1st Edition. Chapman and Hall/CRC, ISBN 9780367720292. Bλ. https://www.routledge.com/Introduction-to-Lattice-Algebra-With-Applications-in-AI-Pattern-Recognition/Ritter-Urcid/p/book/9780367720292

Participation scientific journal editing boards

#1. Future Generation Computer Systems.

Conference Program/Organizing Committees

#1. FUZZ-IEEE 2004 International Conference on Fuzzy Systems, 25-29 July 2004, Budapest, Hungary. Chair of the (poster) session entitled: "System Architectures and Hardware", Tuesday, July 27, 5:30PM-7:00PM.
#2. Optics and Photonics 2005 (sponsored by SPIE – The International Society for Optical Engineering), 31 July – 4 August 2005, San Diego, California, USA. Program Committee of the session OEI321 entitled: "Fuzzy Set Theory and Neural Network Methods in Image Analysis and Pattern Recognition" (chaired by G.X. Ritter & I.L.D.L. Santiago).
#3. World Congress on Computational Intelligence (WCCI 2006) 16-21 July 2006, Vancouver, BC, Canada. Lead chairman of three oral special sessions entitled: "Computational Intelligence Based on Lattice Theory" of the program FUZZ-IEEE 2006, Monday, July 17, 8:00AM-10:00AM, 1:00PM-3:00PM, 3:15PM-5:15PM. The other two chairs were G.X. Ritter and M. Georgiopoulos.
#4. 8th International Conference on Natural Computing**,** 15-22 July 2007, Salt Lake City, Utah, USA. Member of the Program Committee chaired by Manuel Graña.
#5. World Congress on Computational Intelligence (WCCI 2008) 1-6 June 2008, Hong Kong, China. Member of the Technical Committee.
#6. 6th International Conference on Concept Lattices and their Applications (CLA 2008), 21-23 October 2008, Olomouc, Czech Republic. Lead chairman of a Workshop entitled "Lattice-Based Modeling (LBM 2008)". The other two chairs were U. Priss and M. Graña.

#7. International Conference on Statistical Techniques in Pattern Recognition (SPR 2008), 4-22 December 2008, Orlando, Florida, USA. Member of the Program Committee chaired by Michael Georgiopoulos.
#8. 4th International ICSC Symposium on Information Technologies in Environmental Engineering (ITEE) 2009, 28-29 May 2009, Thessaloniki, Greece. Member of the Program Committee chaired by Ioannis N. Athanasiadis, Pericles A. Mitkas, Andrea-Emilio Rizzoli, Jorge Marx-Gómez.
#9. 5th International Conference on Hybrid Artificial Intelligence Systems (HAIS 2010), 23-25 June 2010, San Sebastian, Spain. Lead chairman of two oral special sessions entitled: "Hybrid Artificial Intelligence Systems Based on Lattice Theory". The other two chairs were C. Joslyn και J. Humberto Sossa.
#10. International Joint Conference on Neural Networks (IJCNN 2011), 31 July - 5 August 2011, San Jose, California, USA. Program Committee member (session chair) with Program Chair Prof. Hava Siegelmann.
#11. The 8th International Conference on Concept Lattices and Their Applications (CLA 2011), 17-21 October 2011, INRIA Nancy Grand Est/LORIA Nancy, France. Program Committee member (session chair) with Program Chairs Amedeo Napoli and Vilem Vychodil.
#12. 7th International Conference on Hybrid Artificial Intelligence Systems (HAIS'12) 28-30 March 2012, Salamanca, Spain. Program Committee member with General Chair Prof. Emilio Corchado.
#13. 10th International FLINS Conference on Uncertainty Modeling in Knowledge Engineering and Decision Making (FLINS 2012) 26-29 August 2012, Istanbul, Turkey. Chairman of three oral Special Session entitled "Logic Algebra, Algebraic Logic and Their Applications". The other two chairs were Yang XU και Jun Liu.
#14. 9th International Conference on Concept Lattices and Their Applications (CLA 2012), 11-14 October 2012, Fuengirola (Málaga), Spain. Program Committee, session chair. Program Chairs were Uta Priss and Laszlo Szathmary.
#15. 10th International Conference on Concept Lattices and Their Applications (CLA 2013), 15-18 October 2013, La Rochelle, France. Program Committee, session chair. Program Chairs were Manuel Ojeda-Aciego and Jan Outrata.
#16. 2013 IEEE Intl. Conf. on Imaging Systems and Techniques (IST 2013) 22-23 October 2013 Beijung, China. Technical Program Committee. General Chair was George Giakos.
#17. World Congress on Computational Intelligence (WCCI 2014) 6-11 July 2014, Beijing, China. The chairman of a Special Session entitled "Lattice Computing", FUZZ-IEEE.
#18. The 16th International Conference on Computer as a Tool (EUROCON2015), 8-11 September 2015, University of Salamanca (Spain). Program Committee member with General Chair Emilio Corchado.
#19. International Conference 1st International Association for Blended Learning Conference (IABL 2016), 22-24 April 2016, Kavala, Greece. Technical Program Committee member.
#20. The 8th International Conference on Information & Communication Technologies in Agriculture, Food and Environment (HAICTA 2017), 21-24 September 2017, Chania, Crete (Greece). Program Committee member.
21. International Conference 2018 JSME Conference on Robotics and Mechatronics (ROBOMECH 2018), 2-5 June 2018, Kitakyushu, Japan. Member of a special session poster entitled "Cyber-Physical Systems for PEdagogical Rehabilitation in Special Education (CyberSPEED)".
#22. 9th International Conference on EUropean Transnational Educational (ICEUTE 2018), 6-8 June 2018, San Sebastian, Spain. Chairman of a special session entitled "CybSPEED: Cyber-Physical systems and social robots in education for people with special needs". Other two chairmen were Manuel Graña and Maya Dimitrova.
#23. 26th International Conference on Software, Telecommunications and Computer Networks (SoftCOM 2018), Symposium on: Robotic and ICT assisted wellbeing, 13-15 September 2018, Split, Croatia. Program Committee member.
#24. 14th IEEE International Conference on Intelligent Systems and Knowledge Engineering (ISKE 2019), 14-16 November, Dalian, China. Publicity Chair.

#25. 11th International Conference on Social Robotics (ICSR 2019), 26-29 November 2019, Madrid, Spain. Program Committee member.
#26. 2021 International Joint Conference on Neural Networks (IJCNN 2021), 18 July - 22 July 2021, Shenzhen, China. Program Committee member.
#27. World Congress on Computational Intelligence (WCCI 2022) 18-23 July 2022, Padua, Italy. Technical Committee member – Reviewer of 4 papers.
#28. 2022 North American Fuzzy Information Processing Society (NAFIPS 2022) Conference, 31 May -3 June 2022, Halifax, Nova Scotia, Canada. Chairman of an oral Special Session entitled "Recent Approaches Toward Lattice Computing". The leading chairman was Peter Sussner.

Invited as Collaborator /Speaker

#1. Plenary speaker during the annual general assembly of the Swiss chapter of Sigma-Xi, the Scientific Research Society, 19 April 1997, Bern, Switzerland. His lecture title was "Imitating Life: An Engineering Approach".
#2. Speaker in the seminar "Theory, Applications, and Perspectives of Neural Net Technology" organized by the "Neuron, Human Network" and sponsored by the Greek Ministry of Industry, Research & Technology, 13 October 1997, Thessaloniki, Greece.
#3. Speaker in the first workshop of the human network KTESIBIOS, under the auspices of the General Secretariat of Research and Technology of Greece. Athens, Greece, 23 June 2000. Subject: "Educational Software for Automatic Control Systems".
#4. Invited speaker of the 9th International Work-conference on Artificial Neural Networks (IWANN'2007), San Sebastian, Spain, 20-22 June 2007. His lecture title was "Unified Analysis and Design of ART/SOM Neural Networks and FISs Based on Lattice Theory".
#5. Presentation entitled "AI Based on Lattice Theory" in Workshop B, on Sunday 11 October 2009, 11:30-13:00 (presided by Vincent Müller), EUCogII Members' Conference 2009 of the Human Network "2nd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics", 10-11 October 2009, Hamburg, Germany.
#6. Invited speaker in a Workshop entitled "Trends on Computational Intelligence 2009" in the Universidad del Pais Vasco. San Sebastian, Spain, 9-11 December 2009. The Workshop was organized by Professor Manuel Graña Romay from the Department of Computer Science and Artificial Intelligence. The presentation was entitled "Advantages of using Lattice Theory in Computational Intelligence".
#7. Elected participant in the 39-member conference entitled "Challenges for Cognitive Systems" in Rapperswil, Switzerland, 28-30 January 2011 in the context of the Human Network "2nd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics". This conference formulated a proposal for the upcoming European research direction on "Artificial Cognitive Systems, Interaction and Robotics".
#8. Organizer of a parallel session entitled "Unified Lattice Computing for Unified Cognitive System Design and Applications" in the context of the fourth conference of the human network "2nd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics (EUCogII)", 11-12 April 2011 in Thessaloniki, Greece. This initiative concluded with the submission of an FP7 research proposal to the European Union from a consortium including research teams from Spain (1), United Kingtom (1), Belgium (1) Sweden (1) Czech Republik (1) and Greece (2) with Principal Investigator (PI) Prof. Vassilis Kaburlasos.
#9. Flashtalk EUCog members presentation entitled "The Novel, Lattice Computing Paradigm (LCparadigm) for Versatile Learning" on Thursday 11 April 2013, 16:30-17:30 (presided by Vincent Müller) of the Human Network "3rd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics (EUCogIII)", 10-11 April 2013, Palma de Mallorca, Spain.
#10. In the context of educational program "Erasmus", on 11 June 2013 he visited Département du Signale at des Images, CNRS LTCI, Telecom Paris Tech in Paris (France) following an invitation of professor Isabelle Bloch for collaboration regarding digital signal processing and lattice computing issues.
#11. In the context of educational program "Erasmus", on 12 June 2013 he visited the Verimag, Integrative Research Center (CRI) laboratory in Grenoble (France) following an invitation of professor Joseph Sifakis for collaboration regarding a unification of analog and digital system models and lattice computing issues.

#12. Delivered two 2-hours long (each) lectures in Southwest Jiaotong University, Chengdu, Sichuan, China on Thursday 3 July and Friday 4 July 2014 in the department of Electrical Engineering and the School of Mathematics, respectively, after a personal invitation of professor Yang Xu from the School of Mathematics.
#13. In the context of educational program "Erasmus", during 29-31 October 2014 he visited the Institut für Neuroinformatik in Ruhr-Universität Bochum (Germany) following an invitation of professor Gregor Schöner for collaboration regarding the potential submission of a research project proposal in the context of European Framework Program Horizon 2020.
#14. Delivered one presentation entitled "GUardian Agent Robot squaDs (GUARDs)" in the context of the conference "Successful R&I in Europe 2014 - 6th European Networking" organized by the State of North Rhine - Westfalia in Düsseldorf (Germany) in 30-31 November 2014.
#15. In the context of educational program "Erasmus+", he delivered a presentation entitled "Improvements in Computational Intelligence based on Intervals' Numbers" organized in the Institute of Computer Science Research Institute (CSRI) by the Senior Lecturer in CS Dr. Jun Liu in the University of Ulster (Jordanstown Campus) in Belfast, Northern Ireland on 29 April 2015.
#16. In the context of educational program "Erasmus+" he delivered one lecture entitled "Novel Models of Computational Intelligence to Human-Robot Interaction Applications" organized by Associate Professor Dr. Anna Lekova, Chairwoman of the Hybrid Systems Department, Institute of Systems Engineering and Robotics, Bulgarian Academy of Sciences in Sofia, Bulgaria, 18-20 November 2015.
#17. In the context of educational program "Erasmus+" he delivered a series of lectures entitled "Information Technologies and Robotics for the Improvement of Children with Special Needs" organized by Associate Professor Dr. Miglena Simonska, Chairwoman of the Logopedics Department, South-West University Neofit Rilski in Blagoevgrad, Bulgaria, 15-21 March 2016.
#18. Invited Speaker at the 15th International Conference on Concept Lattices and Their Applications (CLA 2020), 29 June – 1 July 2020, Tallinn, Estonia. Program Co-chairs: Francisco José Valverde Albacete and Martin Trnecka. Lecture title: "The Lattice Computing (LC) Paradigm". http://ceur-ws.org/Vol-2668/ (Open Access)
#19. He delivered a series of lectures entitled "The Lattice Computing (LC) Information Processing Paradigm" organized by the Director of the laboratory "Signaux Systèmes Distribués et Intelligence Artificielle (SSDIA)" of Faculty "L'Ecole Normale Supérieure de l'Enseignement Technique (ENSET)", Professor Dr. Omar Bouattane at the Université Hassan II de Casablanca (UH2C) in Casablanca. Morocco during 14-19 November 2021, in the context of the European educational program Erasmus+.
#20. He delivered a series of lectures entitled "Computational Modeling Based on The Lattice Computing (LC) Information Processing Paradigm" organized by the Director of the laboratory "Signaux Systèmes Distribués et Intelligence Artificielle (SSDIA)" της Σχολής "L'Ecole Normale Supérieure de l'Enseignement Technique (ENSET)", Professor Dr. Omar Bouattane του Πανεπιστημίου Université Hassan II de Casablanca (UH2C) in Casablanca. Morocco during 2-7 October 2022, in the context of the European educational program Erasmus+.

Founder
#1. Founding member of the Greek Chapter of the IEEE Education Society, December 5, 2004, Athens.
#2. Founder and first Director of the "Human-Machines Interaction laboratory (HUMAIN-lab)" (see at http://humain-lab.cs.ihu.gr/?lang=en) at EMaTTech, Greek Government Gazette B' 836, 30 March 2016.

Research Seminar Organizer
#1. Academic year 2002-2003 in the TEI of Kavala he organized a series of research seminars with participation 5+9=14 speakers from both academia and local industry, respectively.
#2. Academic year 2013-2014 in the Eastern Macedonia and Thrace Institute of Technology he organized a series of research lectures (1 lecture per month) for the faculty members of the institution toward getting to know each other's research.

MSc/PhD degree supervisions

#1. Supervisor of the student Theodora G. Trachanopoulou regarding her Master's Thesis entitled "Artificial Intelligence Techniques and Decision Making in Business and Finance -- An econometric classifier model based on disparate types of data" (M.Sc. Finance & Financial Information Systems, School of Finance, University of Greenwich -- School of Business & Economics, TEI of Kavala), 2004.

#2. PhD Thesis Tribunal member for Mr. Ivan Villaverde de la Nava whose Ph.D. was conferred in December 2009 from the Universidad del País Vasco, Ciencias de la Computación e Inteligencia Artificial, San Sebastian, Spain with title "On Computational Intelligence Tools for Vision Based Navigation of Mobile Robots" and supervisor professor Manuel Graña Romay. Mr. Ivan Villaverde de la Nava carried out part of his Ph.D. work, as an exchange student, from 15 September 2008 to 15 December 2008 (3 months) in the Department of Industrial Informatics under the guidance of professor Kaburlasos.

#3. PhD Thesis Tribunal member for Miss. Darya Chyzhyk whose Ph.D. was conferred in July 2013 from the Universidad del País Vasco, Ciencias de la Computación e Inteligencia Artificial, San Sebastian, Spain with title "Contributions of Lattice Computing to Medical Image Processing" and supervisor professor Manuel Graña Romay.

#4. Supervisor of the student Christos Bazinas regarding his Master's Thesis entitled "Logical processing of simple sentences induced from sensors, inference by computational intelligence and machine learning models and social media posting" conferred in September 2019 from the Department of Computer Science, International Hellenic University (IHU), Kavala, Greece.

#5. Supervisor of the student Christos Bazinas regarding his Ph.D. Dissertation entitled "Big data-time series prediction and autonomous robot applications in agriculture or/and education", 15 April 2021 -. Department Computer Science, International Hellenic University (IHU), Kavala, Greece.

#6. Supervisor of the student George Siavalas regarding his Ph.D. Dissertation entitled "Design and development of an aerial autonomous helicopter (drone) for aerial spraying of orchards", 15 April 2021 -. Department Computer Science, International Hellenic University (IHU), Kavala, Greece.

Administrative

#1. 1990-1991 : Elected vice-chairman for the student chapter of the Institute of Electrical and Electronics Engineers (IEEE) in Northern Nevada, USA.

#2. 2003-2004, 2009-2011: Chairman of the Division of Computing Systems in the Department of Industrial Informatics at the Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece.

#3. 2003-2004, 2009-2011: Vice chairman of the Department of Industrial Informatics at the Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece.

#4. 2004-2008: Director of the Division of Informatics Applications in the Center for Technological Research of the Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece.

#5. 2011-2013: Chairman of the Department of Industrial Informatics at the Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece.

#6. 2012-2016: Elected member of the Council of the Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece.

#7. 1/10/2016-7/5/2019: Representative of the Department of Computer and Informatics Engineering in the Research Committee of the Eastern Macedonia and Thrace Institute of Technology (EMaTTech).

#8. 2016-today: Director of the "Human-Machines Interaction Laboratory (HUMAIN-Lab)" in the Department of Industrial Informatics at the Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece (http://humain-lab.cs.ihu.gr/?lang=en).

#9. 26/07/2019-31/08/2022: Elected member of the special, 7-member Research Committee & Special Funds and Accounts Department of the International Hellenic University (IHU).

LIST OF PUBLICATIONS

Research Monographs (RM)

[RM#1] V.G. Kaburlasos, *Towards a Unified Modeling and Knowledge-Representation Based on Lattice Theory – Computational Intelligence and Soft Computing Applications*. Heidelberg, Germany: Springer, series: Studies in Computational Intelligence, vol. 27, 2006, ISBN: 3-540-34169-2.

Patents (PA)

[PA#1] "Robotic end-effector tool for simultaneous cutting and holding of an object with application in precision agriculture and particularly in viticulture" Patent No.: 1010229, Industrial Property Organisation, Athens, Greece 5 May 2022 (valid until 30 Mar 2041). Owners: Vassilis Kaburlasos, George Papakostas, Theodore Pachidis, Special Account Management Committee of the International Hellenic University (IHU).

Textbooks (TB)

[TB#1] V.G. Kaburlasos, G.A. Papakostas, *Introduction to Computational Intelligence – A Holistic Approach*. (in Greek) Hellenic Academic Ebooks (www.kallipos.gr), 2016. (https://repository.kallipos.gr/handle/11419/3443).

Edited Collective Volumes (ECV)

[ECV#1] V.G. Kaburlasos, G.X. Ritter (eds.) *Computational Intelligence Based on Lattice Theory*. Heidelberg, Germany: Springer, series: Studies in Computational Intelligence, vol. 67, 2007, ISBN: 3-540-72686-9.

[ECV#2] V. Kaburlasos, U. Priss, M. Graña (eds.), *LBM 2008 (CLA 2008), Proceedings of the Lattice-Based Modeling Workshop, in conjunction with The Sixth International Conference on Concept Lattices and Their Applications*. Olomouc, Czech Republic: Palacký University, 2008, ISBN: 978-80-244-2112-4.

SCI [ECV#3] V.G. Kaburlasos (Guest Editor), Special Issue on: Information Engineering Applications Based on Lattices, *Information Sciences*, vol. 181, iss. 10, pp. 1771-1773, 2011 (16 papers, pp. 1774-2060).

[ECV#4] G.A. Papakostas, A.G. Hatzimichailidis, V.G. Kaburlasos (eds.) *Handbook of Fuzzy Sets Comparison – Theory, Algorithms and Applications*. Science Gate Publishing (SGP) vol.6, http://sciencegatepub.com/ , 2016, ISBN: 978-618-81418-1-2 (print), ISBN: 978-618-81418-2-9 (e-book). (http://sciencegatepub.com/books/gcsr/gcsr_vol6/).

SCI [ECV#5] V. G. Kaburlasos (Guest Editor), Special Issue on "Lattice Computing: A Mathematical Modelling Paradigm for Cyber-Physical System Applications", *Mathematics*, vol. 10, no. 2, 271, 2022. https://www.mdpi.com/2227-7390/10/2/271 (Section "Computational and Applied Mathematics") https://www.mdpi.com/journal/mathematics/special_issues/Lattice_Computing (8 papers).
Citation: Kaburlasos, V.G. Lattice Computing: A Mathematical Modelling Paradigm for Cyber_Physical System Applications. Mathematics 2022, 10, 271. https://doi.org/10.3390/math10020271

SCI [ΕΣΤ#6] Lyuba Alboul, Jacques Penders, Peter Mitrouchev, Maya Dimitrova, Anna Lekova, Vassilis Kaburlasos (Guest Editors), Special Issue on "Emerging Technologies for Assistive Robotics: Current Challenges and Perspectives", *Frontiers in Robotics and AI* (Section "Biomedical Robotics") https://www.frontiersin.org/research-topics/14419/emerging-technologies-for-assistive-robotics-current-challenges-and-perspectives (4 papers).

Scientific Journals (SJ)

SCI [SJ#1] D.D. Egbert, P.H. Goodman, V.G. Kaburlasos, J.H. Whitchey, "Generalization capabilities of subtle image pattern classifiers", *IEEE Transactions on Knowledge and Data Engineering*, vol. 4, no. 2, pp. 172-177, 1992.

J [SJ#2] V.G. Kaburlasos, V. Petridis, "Fuzzy Lattice Neurocomputing (FLN) : A novel connectionist scheme for versatile learning and decision making by clustering", *International Journal of Computers and Their Applications*, vol. 4, no. 3, pp. 31-43, 1997.

SCI [SJ#3] V. Petridis, V.G. Kaburlasos, "Fuzzy lattice neural network (FLNN): a hybrid model for learning", *IEEE Transactions on Neural Networks*, vol. 9, no. 5, pp. 877-890, 1998 (Special Issue on *Neural Networks and Hybrid Intelligent Models: Foundations, Theory, and Applications*. Guest Editors: C. Lee Giles, Ron Sun).

SCI [SJ#4] V. Petridis, V.G. Kaburlasos, "Learning in the framework of fuzzy lattices", *IEEE Transactions on Fuzzy Systems*, vol. 7, no. 4, pp. 422-440, 1999.
Errata in *IEEE Transactions on Fuzzy Systems*, vol. 8, no. 2, p. 236, 2000.

SCIE [SJ#5] V.G. Kaburlasos, V. Petridis, P. Brett, D. Baker, "Estimation of the stapes-bone thickness in stapedotomy surgical procedure using a machine-learning technique", *IEEE Transactions on Information Technology in Biomedicine*, vol. 3, no. 4, pp. 268-277, 1999.

SCI [SJ#6] V.G. Kaburlasos, V. Petridis, "Fuzzy Lattice Neurocomputing (FLN) models", *Neural Networks*, vol. 13, no. 10, pp. 1145-1170, 2000.

SCI [SJ#7] V. Petridis, V.G. Kaburlasos, "Clustering and classification in structured data domains using fuzzy lattice neurocomputing (FLN)", *IEEE Transactions on Knowledge and Data Engineering*, vol. 13, no. 2, pp. 245-260, 2001 (Special Section on *Connectionist Models for Learning in Structured Domains*. Guest Editors: Paolo Frasconi, Marco Gori, Alessandro Sperduti).

SCIE [SJ#8] V.G. Kaburlasos, V. Spais, V. Petridis, L. Petrou, S. Kazarlis, N. Maslaris, A. Kallinakis, "Intelligent clustering techniques for prediction of sugar production", *Mathematics and Computers in Simulation*, vol. 60, iss. 3-5, pp. 159-168, 2002 (Special Issue on *Intelligent Forecasting, Fault Diagnosis, Scheduling, and Control*. Guest Editors: Spyros G. Tzafestas, Elpida S. Tzafestas).

SCI [SJ#9] V. Petridis, S. Kazarlis, V.G. Kaburlasos, "ACES: An interactive software platform for self-instruction and self-evaluation in automatic control systems", *IEEE Transactions on Education*, vol. 46, no. 1, pp. 102-110, 2003.

SCIE [SJ#10] V. Petridis, V.G. Kaburlasos, "FINkNN: a fuzzy interval number k-nearest neighbor classifier for prediction of sugar production from populations of samples", *Journal of Machine Learning Research*, vol. 4(Apr), pp. 17-37, 2003.

SCIE [SJ#11] A. Kehagias, V. Petridis, V.G. Kaburlasos, P. Fragkou, "A comparison of word- and sense-based text categorization using several classification algorithms", *Journal of Intelligent Information Systems*, vol. 21(Nov), no. 3, pp. 227-247, 2003.

SCI [SJ#12] V.G. Kaburlasos, "FINs: Lattice theoretic tools for improving prediction of sugar production from populations of measurements", *IEEE Transactions on Systems, Man and Cybernetics – Part B*, vol. 34, no. 2, pp. 1017-1030, 2004.

SCIE [SJ#13] S.E. Papadakis, P. Tzionas, V.G. Kaburlasos, J.B. Theocharis, "A genetic based approach to the Type I structure identification problem", *Informatica*, vol. 16, no. 3, pp. 365-382, 2005.

SCI [SJ#14] V.G. Kaburlasos, A. Kehagias, "Novel fuzzy inference system (FIS) analysis and design based on lattice theory. Part I: Working principles", *International Journal of General Systems*, vol. 35, no. 1, pp. 45-67, 2006.

SCI [SJ#15] V.G. Kaburlasos, S.E. Papadakis, "Granular self-organizing map (grSOM) for structure identification", *Neural Networks*, vol. 19, no. 5, pp. 623-643, 2006.

SCI [SJ#16] V.G. Kaburlasos, A. Kehagias, "Novel fuzzy inference system (FIS) analysis and design based on lattice theory", *IEEE Transactions on Fuzzy Systems*, vol. 15, no. 2, pp. 243-260, 2007.

SCI [SJ#17] V.G. Kaburlasos, I.N. Athanasiadis, P.A. Mitkas, "Fuzzy lattice reasoning (FLR) classifier and its application for ambient ozone estimation", *International Journal of Approximate Reasoning*, vol. 45, no. 1, pp. 152-188, 2007.

SCIE [SJ#18] V.G. Kaburlasos, C.C. Marinagi, V.T. Tsoukalas, "Personalized multi-student improvement based on Bayesian cybernetics", *Computers & Education*, vol. 51, no. 4, pp. 1430-1449, 2008.

SCIE [SJ#19] V.G. Kaburlasos, S.E. Papadakis, "A granular extension of the fuzzy-ARTMAP (FAM) neural classifier based on fuzzy lattice reasoning (FLR)", *Neurocomputing*, vol. 72, no. 10-12, pp. 2067-2078, 2009 (Special Section on *Lattice Computing and Natural Computing*. Guest Editor: Manuel Graña).

SCIE [SJ#20] V.G. Kaburlasos, L. Moussiades, A. Vakali, "Fuzzy lattice reasoning (FLR) type neural computation for weighted graph partitioning", *Neurocomputing*, vol. 72, no. 10-12, pp. 2121-2133, 2009 (Special Section on *Lattice Computing and Natural Computing*. Guest Editor: Manuel Graña).

SCI [SJ#21] S.E. Papadakis, V.G. Kaburlasos, "Piecewise-linear approximation of nonlinear models based on probabilistically/possibilistically interpreted Intervals' Numbers (INs)", *Information Sciences*, vol. 180, no. 24, pp. 5060-5076, 2010.

SCI [SJ#22] A. Amanatiadis, V.G. Kaburlasos, A. Gasteratos, S.E. Papadakis, "Evaluation of shape descriptors for shape-based image retrieval", *IET Image Processing*, vol. 5, iss. 5, pp. 493-499, 2011.

SCI [SJ#23] V.G. Kaburlasos, S.E. Papadakis, A. Amanatiadis, "Binary image 2D shape learning and recognition based on lattice computing (LC) techniques", *Journal of Mathematical Imaging and Vision*, vol. 42, no.

2-3, pp. 118-133, 2012 (Special Issue on *Hybrid Artificial Intelligent Systems*. Guest Editors: Manuel Graña, Emilio Corchado, Michal Wozniak).

SCIE [SJ#24] A.G. Hatzimichailidis, G.A. Papakostas, V.G. Kaburlasos, "A novel distance measure of intuitionistic fuzzy sets and its application to pattern recognition applications", *International Journal of Intelligent Systems*, vol. 27, no. 4, pp. 396-409, 2012.

SCI [SJ#25] G.A. Papakostas, A.G. Hatzimichailidis, V.G. Kaburlasos, "Distance and similarity measures between intuitionistic fuzzy sets: a comparative analysis from a pattern recognition point of view", *Pattern Recognition Letters*, vol. 34, no. 14, pp. 1609-1622, 2013.

SCI [SJ#26] V.G. Kaburlasos, S.E. Papadakis, G.A. Papakostas, "Lattice computing extension of the FAM neural classifier for human facial expression recognition", *IEEE Transactions on Neural Networks and Learning Systems*, vol. 24, no. 10, pp. 1526-1538, 2013.

J [SJ#27] V.G. Kaburlasos, L. Moussiades, "Induction of formal concepts by lattice computing techniques for tunable classification", *Journal of Engineering Science and Technology Review*, vol. 7, no. 1, pp. 1-8, 2014.

SCIE [SJ#28] V.G. Kaburlasos, T. Pachidis, "A Lattice-Computing ensemble for reasoning based on formal fusion of disparate data types, and an industrial dispensing application", *Information Fusion*, vol. 16, pp. 68-83, 2014 (Special Issue on *Information Fusion in Hybrid Intelligent Fusion Systems*. Guest Editors: Michal Wozniak, Emilio Corchado and Manuel Graña).

SCIE [SJ#29] S.E. Papadakis, V.G. Kaburlasos, G.A. Papakostas, "Two fuzzy lattice reasoning (FLR) classifiers and their application for human facial expression recognition", *Journal of Multiple Valued Logic and Soft Computing*, vol. 22, no. 4-6, pp. 561-579, 2014 (Special Issue on *Uncertainty Modeling in Knowledge Engineering and Decision Making*. Guest Editors: Cengiz Kahraman and Farouk Yalaoui).

SCI [SJ#30] V.G. Kaburlasos, A. Kehagias, "Fuzzy inference system (FIS) extensions based on lattice theory", *IEEE Transactions on Fuzzy Systems*, vol. 22, no. 3, pp. 531-546, 2014.

SCIE [SJ#31] Y. Jamshidi, V.G. Kaburlasos, "gsaINknn: A GSA optimized, lattice computing knn classifier", *Engineering Applications of Artificial Intelligence*, vol. 35, pp. 277-285, 2014.

SCIE [SJ#32] G.A. Papakostas, A. Savio, M. Graña, V.G. Kaburlasos, "A lattice computing approach to Alzheimer's disease computer assisted diagnosis based on MRI data", *Neurocomputing*, vol. 150, part A, pp. 37-42, 2015 (Special Issue on *Bioinspired and knowledge based techniques and applications*. Guest Editors: Manuel Graña and Bogdan Raducanu).

SCI [SJ#33] V.G. Kaburlasos, G.A. Papakostas, "Learning distributions of image features by interactive fuzzy lattice reasoning (FLR) in pattern recognition applications", *IEEE Computational Intelligence Magazine*, vol. 10, no. 3, pp. 42-51, 2015 (Special Issue on *New Trends of Learning in Computational Intelligence*. Guest Editors: Guang-Bin Huang, Erik Cambria, Kar-Ann Toh, Bernard Widrow, Zongben Xu).

J [SJ#34] A.G. Hatzimichailidis, G.A. Papakostas, V.G. Kaburlasos, "A distance measure based on fuzzy D-implications: application in pattern recognition", *British Journal of Mathematics & Computer Science*, vol. 14, no. 3, pp. 1-14, 2016.

SCIE [SJ#35] Y. Zhang, D. Huang, W. Gao, V.G. Kaburlasos, "A decision making approach with linguistic weight and unavoidable incomparable ranking", *International Journal of Computational Intelligence Systems*, vol. 12, no. 2, pp. 1102-1112, 2019.

J [SJ#36] T. Pachidis, E. Vrochidou, C.I. Papadopoulou, V.G. Kaburlasos, S. Kostova, M. Bonković, V. Papić, "Integrating robotics in education and vice versa; shifting from blackboard to keyboard", *International Journal of Mechanics and Control*, ISSN: 1590-8844, vol. 20, no. 01, June 2019, pp. 53-69.

SCIE [SJ#37] E. Mavridou, E. Vrochidou, G.A. Papakostas, T. Pachidis, V.G. Kaburlasos, "Machine vision systems in precision agriculture for crop farming", *Journal of Imaging*, vol. 5, no. 89, pp. 1-32, 2019. Doi:10.3390/jimaging5120089.

SCIE [SJ#38] C. Lytridis, A. Lekova, C. Bazinas, M. Manios, V.G. Kaburlasos, "WINkNN: Windowed Intervals' Number kNN classifier for efficient time-series applications", *Mathematics*, vol. 8, no. 3, 413, 2020. https://www.mdpi.com/2227-7390/8/3/413 (Special Issue on *Lattice Computing: A Mathematical Modelling Paradigm for Cyber–Physical System Applications* – Section "Computational and Applied Mathematics". Guest Editor: Vassilis G. Kaburlasos) https://www.mdpi.com/journal/mathematics/special_issues/Lattice_Computing

SCIE [SJ#39] A. Amanatiadis, V.G. Kaburlasos, Ch. Dardani, S.A. Chatzichristofis, A. Mitropoulos, "Social robots in special education: creating dynamic interactions for optimal experience", *IEEE Consumer Electronics Magazine*, vol. 9, no. 3, pp. 39-45, May 2020. doi:10.1109/MCE.2019.2956218

SCIE [SJ#40] C. Lytridis, C. Bazinas, G. Sidiropoulos, G.A. Papakostas, V.G. Kaburlasos, V.-A. Nikopoulou, V. Holeva, A. Evangeliou, "Distance special education delivery by social robots", *Electronics* 2020, 9(6), 1034; https://www.mdpi.com/2079-9292/9/6/1034 (Special Issue on *Applications and Trends in Social Robotics* – Section "Artificial Intelligence". Guest Editors: M. Malfaz, J. Carlos Castillo, Á. Castro, F. Alonso).

J [SJ#41] V.-A. Nikopoulou, V. Holeva, M.D. Kerasidou, P. Kechayas, M. Papadopoulou, E. Vrochidou, G.A. Papakostas, V.G. Kaburlasos, "Identifying linguistic cues; towards developing robots with empathy in autism interventions", *Journal of Clinical Medicine of Kazakhstan*, vol. 2, no. 56, pp. 27-33, 2020. https://www.clinmedkaz.org/download/identifying-linguistic-cues-towards-developing-robots-with-empathy-in-autism-interventions-9092.pdf

J [SJ#42] M. Qbadou, I. Salhi, H. El Fazazi, K. Mansouri, M. Manios, V. Kaburlasos, "Human-robot multilingual verbal communication – the ontological knowledge and learning-based models", *Advances in Science, Technology and Engineering Systems (ASTES) Journal*, vol. 5, no. 4, pp. 540-547, 2020. https://astesj.com/v05/i04/p64/ (Open Access)

SCIE [SJ#43] J. Musić, M. Bonković, S. Kružić, T. Marasović, V. Papić, S. Kostova, M. Dimitrova, S. Saeva, M. Zamfirov, V. Kaburlasos, E. Vrochidou, G. Papakostas, T. Pachidis, "Robotics and information technologies in education: four countries from Alpe-Adria-Danube Region survey", *International Journal of Technology and Design Education*. Springer Nature B.V. 2020, published online: 13 October 2020, DOI: 10.1007/s10798-020-09631-9

SCIE [SJ#44] E. Vrochidou, K. Tziridis, A. Nikolaou, T. Kalampokas, G. A. Papakostas, T. P. Pachidis, S. Mamalis, S. Koundouras, V G. Kaburlasos, "An autonomous grape-harvester robot: integrated system architecture", *Electronics* 2021, 10(9), 1056; https://doi.org/10.3390/electronics10091056 (Special Issue on *Control of Mobile Robots* – Section "Systems & Control Engineering". Guest Editor: Vladan Papic).

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(the year of publication)

	Journal Name	Impact Factor	Publication Year
1	IEEE Transactions on Knowledge and Data Engineering	- 1.040	1992 2001
2	International Journal of Computers and Their Applications	-	1997
3	IEEE Transactions on Neural Networks IEEE Transactions on Neural Networks and Learning Systems	1.405 4.37	1998 2013/4
4	IEEE Transactions on Fuzzy Systems	1.596 2.137 6.306	1999 2007 2013/4
5	IEEE Transactions on Information Technology in Biomedicine	1.118	1999
6	Neural Networks	1.221 2.000	2000 2006
7	Mathematics and Computers in Simulation	0.316	2002
8	IEEE Transactions on Education	0.428	2003
9	Journal of Machine Learning Research	4.317	2003
10	Journal of Intelligent Information Systems	0.941	2003
11	IEEE Transactions on Systems, Man and Cybernetics – Part B	1.052	2004
12	Informatica	0.456	2005
13	International Journal of General Systems	0.620	2006
14	International Journal of Approximate Reasoning	1.220	2007
15	Computers & Education	2.190	2008
16	Neurocomputing	2.126 2.392	2009 2015
17	Information Sciences	2.833 2.833	2010 2011
18	IET Image Processing	0.639	2011
19	Journal of Mathematical Imaging and Vision	1.767	2012
20	International Journal of Intelligent Systems	1.416	2012
21	Pattern Recognition Letters	1.062	2013
22	Journal of Engineering Science and Technology Review	-	2014
23	Information Fusion	3.472	2013/4
24	Journal of Multiple Valued Logic and Soft Computing	0.667	2013/4
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