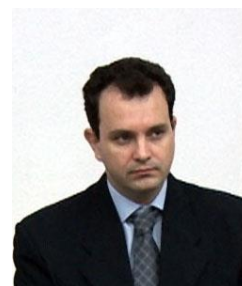


CURRICULUM VITAE

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Year & Place of Birth: 1968 - Kavala, Greece



SHORT PROFILE:

Professor VASSILIOS CHATZIS received the Diploma of Electrical Engineering in 1991 and the PhD degree in Informatics in 1999 both from the Aristotle University of Thessaloniki, Greece. He is currently a Professor at the Department of Management Science and Technology, International Hellenic University, Greece. He teaches several undergraduate and graduate level courses in the fields of Computer Programming, Data Structures, Software Engineering and Software Implementation.

From 2002 to 2019 he served as a professor at the Business Administration dept. and at the Information Management dept., Technological Educational Institute of Eastern Macedonia and Thrace, Greece. He has also served as an adjoined lecturer at the Electrical and Computer Engineering department, Democritus University of Thrace, Greece. From 1993 to 1999 he was a researcher in the Artificial Intelligence and Information Analysis Laboratory in the Department of Informatics, University of Thessaloniki, Greece.

He has more than 20 years of experience as a senior researcher acting as a coordinator or a member of the research team in several projects. His current research interests are in the areas of digital image processing and analysis, clustering, image retrieval, machine vision and fuzzy logic. He has published 19 journal papers and more than 29 conference papers in the field of image processing, which has been cited more than 1200 times (scopus). He is one of the creators of the FLICM algorithm which has been widely accepted as a state of the art method for image clustering. He acts as a reviewer in several international scientific journals and conferences.

He acts as a reviewer in several international scientific journals such as: Pattern Recognition – Elsevier, Journal of Mathematical Imaging and Vision – Springer, International Journal of Pattern Recognition and Artificial Intelligence – World Scientific, IEEE Transactions on Image Processing and IEEE Transactions on Fuzzy Systems.

EDUCATION:

- 1995 - 1999: PhD Thesis in **Informatics**: “*Nonlinear digital image and signal processing*”, department of Informatics, Aristotle Univ. of Thessaloniki.
- 1986 - 1991: Diploma in **Electrical Engineering**. Diploma Thesis: “*Solution of Electromagnetic Field problems using the Finite Elements method*”. Telecommunications sector, department of Electrical and Computer Engineering, Aristotle Univ. of Thessaloniki.
- 1997: Seminars on: “Theory, Applications and potentials of Neural Network Technology”, department of Informatics, Aristotle Univ. of Thessaloniki.
- 1994: Seminars on: “Interactive Services and Multimedia over Computer Networks”, department of Electrical and Computer Engineering, Aristotle Univ. of Thessaloniki.
- 1991: Seminars on: “Advanced Techniques on Telecommunication Systems and Signal Processing”, department of Electrical and Computer Engineering, Aristotle Univ. of Thessaloniki.

EMPLOYMENT:

- 2019 – today: Professor, Department of Management Science and Technology, International Hellenic University, Greece.
- 2013 – 2019: Professor, Department of Business Administration, Technological Institute of Eastern Macedonia and Thrace, Greece (former Kavala Institute of Technology).
- 2010 – 2013: Professor, Information Management department, Kavala Institute of Technology.
- 2006 – 2010: Associate Professor, Information Management department, Kavala Institute of Technology.
- 2002 – 2006: Assistant Professor, Information Management department, Kavala Institute of Technology.
- 2001 – 2002: Adjoined Lecturer, Electrical and Computer Engineering dept., Democritus Univ. of Thrace.
- 2001 – 2002: Scientific Assistant, Information Management department, Kavala Institute of Technology.

2000 – 2002: Scientific Assistant, Informatics department, Technological Institute of Thessaloniki.
2000 – 2001: Head of Software Development Dept., netINVEST Ltd.
1999 – 2001: Technical Support, netFINest SA.
1999: Consultant in R&D Projects Dept, ATLANTIS Research Organisation.

RESEARCH:

Current research interests include: digital image processing and analysis, digital forensics, pattern recognition, image retrieval, artificial intelligence, fuzzy logic, hardware implementations, quantum cellular automata and nanoelectronics. The following numbers summarize the main research achievements:

Journal papers:	19	(indexed in www.scopus.com)
Conference papers:	29	
Citations:	1305	(from www.scopus.com)
Citations:	1272	(from www.scopus.com excluding self-citations of all authors)
h-index:	9	(from www.scopus.com excluding self-citations of all authors)

Coordinator and member of the main research team of the project:

- «Computer Vision and AI Algorithms Edge Computation on UAVs – (edgeAI4UAV)» 2022- 2023, funded through the European Excellence Network «AI4Media – A European Excellence Center for Media, Society and Democracy » (www.ai4media.eu) and the European Research Program “Horizon 2020”.

Coordinator of the research project:

- “Retrieval and protection of intellectual property rights in multidimensional digital signal data (images & videos)”, the project was co-funded by the European Social Fund & National Resources – EPEAEK II - Archimedes (2004-2007).

Member of the main research team of the projects:

- «Innovative Modular Dual System Based on Business Processes Modeling and Simulation for Company Oriented Vocational Education and Training», co-funded by EU Erasmus+ program.
- “Software modeling human operator in industrial production using neuro-fuzzy models for optimal utilization of multivariate types of information”, the project was co-funded by the European Social Fund & National Resources – EPEAEK II – Archimedes.
- “Mining techniques in the management and analysis of the Technological Institute of Kavala students and alumni”, the project was co-funded by the European Social Fund & National Resources – EPEAEK II – Archimedes II.

Researcher in the following EU funded research projects during PhD Thesis (1994-1999) in Aristotle Univ. of Thessaloniki:

- Access Control and Copyright Protection for Images (ACCOPI).
- Open Kernel for Access to Protected Interoperable interactive services (OKAPI).
- Nonlinear and Adaptive Techniques for digital image processing, computer vision and neural networks (NAT).
- Nonlinear Model-Based Analysis and Description of Images for Multimedia Applications (NOBLESSE).
- Multi-modal Verification Techniques for Teleservices and Security Applications (M2VTS).

MANAGEMENT:

- Head of Management Science and Technology department (from 9/2021).
- Member of the General Assembly of the Hellenic Foundation for Research and Innovation as a representative of the International Hellenic University, (from 2020).
- Head of the Master Program “Information Systems”, International Hellenic University, (from 2019).
- Head of the Master Program “Management Science and Information Systems”, Technological Institute of Eastern Macedonia and Thrace, (from 1/10/2013).
- Head of the Information Management Department, T.E.I. of Kavala, (17/9/2003 – 31/8/2007 and 1/9/2009 – 31/8/2011).
- Head of the Computer Science Sector of the Information Management Department, T.E.I. of Kavala, (1/9/2007 – 31/8/2009).
- Representative of the Department of Information Management in Research Committee of TEI of Kavala (1/9/2007 – 31/8/2010).

- Institutional Manager of the project "Computer Studies Support in T.E.I. of Kavala 2003-2008" (5/10/2006 - 31/12/2008). Coordinator of the sub-project for the Information Management Department from the start of the project until 4/10/2006.

TEACHING:

- in Master programs:
 - "Implementation and Management of Information Systems", MSc program: "Management Science and Information Systems", Technological Institute of Eastern Macedonia and Thrace, 2011-today.
 - "Computing Systems for the Management of Enterprise Resources", MSc program: "Management Science and Information Systems", Technological Institute of Eastern Macedonia and Thrace, 2011- today.
 - "Expert Systems and Decision Support Systems", MSc program: "Management Science and Information Systems", Technological Institute of Eastern Macedonia and Thrace, 2013- today.
 - "Internet Business Applications", MSc program: "Finance & Financial Information Systems", T.E.I. of Kavala - University of Greenwich, 2007-2012.
 - "Managing Systems Implementation", MSc program: "Finance & Financial Information Systems", T.E.I. of Kavala - University of Greenwich, 2006-2012.
 - "Internet and Electronic Communication", MSc program: "Southeast European Studies", Law School, Democritus Univ. of Thrace, 2007-2011.
 - "Implementation and Management of Information Systems", MSc program: Management Science and Information Systems, Department of Information Management, T.E.I. of Kavala, 2011-2012.
 - "Computer Systems for Enterprise Resource Planning", MSc program: Management Science and Information Systems, Department of Information Management, T.E.I. of Kavala, 2011-2012.
 - Supervisor of 32 master thesis.
- in Graduate programs:
 - in Management Science and Technology dept. of International Hellenic University, the following courses: "Programming I", "Programming II". Taught in Greek from 2019-2020 till today.
 - in Business Administration dept. of T.E.I. of Eastern Macedonia and Thrace, the following courses: "Object Oriented Programming", "Data Structures", "Web applications". Taught in Greek in several semesters from 2013 till today.
 - in Information Management dept. of T.E.I. of Kavala, the following courses: "Object Oriented Programming", "Data Structures", "Information Technology", "Information Theory in Management", "Seminar", "Human Computer Interaction", "Digital Image Processing". Taught in Greek in several semesters from 2001 till 2016.
 - in Electrical and Computer Engineering dept of Democritus Univ. of Thrace, the following courses: "Introduction to Electrical Measurements", "Electric Circuits III", "Comparative Presentation of Programming Languages", "Operating Systems", "Electric Circuits I", "Digital Image Processing". Taught in Greek in several semesters from 2001 till 2009.
 - in Information Technology dept. of TEI of Thessaloniki the course "Digital Image Processing". Taught in Greek, 2000-2001.

COMPUTER and SOFTWARE skills:

- Web Programming using PHP, Javascript, CSS, HTML.
- Programming using C++, Java, Python.
- Analysis and design of databases (SQL).

LANGUAGES:

- Greek (native), English (fluent).

MEMBER:

- Institute of Electrical and Electronic Engineers (IEEE).
- International Association for Pattern Recognition (IAPR).
- Technical Chamber of Greece.
- Panhellenic Union of Electrical and Mechanical Engineers.
- Greek Association of Image Processing and Digital Media.
- Reviewer for numerous scientific conferences and journals such as:
 - IEEE Transactions on Image Processing
 - IEEE Transactions on Fuzzy Systems
 - IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems

- Pattern Recognition
- Journal of Mathematical Imaging and Vision
- Journal of Intelligent and Fuzzy Systems
- International Journal of Pattern Recognition and Artificial Intelligence
- IET Image Processing
- Pattern Recognition Letters

HONORS:

- Co-chair of the Second International Scientific Conference in “COMPUTER SCIENCE”, Chalkidiki, Greece, 30th September – 2nd October 2005.
- Member of the Scientific Committee of the International Journal of Economic Sciences and Applied Research” (<http://www.ijesar.org/>)
- Chairperson of the session “Image Analysis and Enhancement” in the 17th International Conference on Digital Signal Processing, 2011.

LIST OF PUBLICATIONS:

BOOKCHAPTERS:

- [1] V. Mardiris and V. Chatzis, "Image Processing Algorithms Implementation Using Quantum Cellular Automata", in Cellular Automata in Image Processing and Geometry edited by P. Rosin, A. Adamatzky & X. Sun, pp.65-84, ISBN 978-3-319-06430-7, Springer 2014.
- [2] V. Chatzis and I. Pitas, "Fuzzy Techniques in Digital Image Processing and Shape Analysis" in Fuzzy Filters for Image Processing, edited by M. Nachtgael, D. Van der Weken, D. Van De Ville & E.E. Kerre, pp.273-305, ISBN 3-540-00465-3, Springer, 2003.

JOURNALS:

- [1] Mardiris, V. and Chatzis, V., A Configurable Design for Morphological Erosion and Dilation Operations in Image Processing using Quantum-dot Cellular Automata, Journal of Engineering Science and Technology Review, Vol. 9, Iss. 2, pp. 25-30, 2016.
- [2] Krinidis, S., Krinidis, M., Chatzis, V., Fast and robust fuzzy active contours, Engineering Intelligent Systems 21 (2-3), pp. 133-146, 2013.
- [3] Panagiotopoulos, F.K., Mardiris, V.A., Chatzis, V., Quantum-dot cellular automata design for median filtering and mathematical morphology operations on binary images, Lecture Notes in Computer Science, 7495 LNCS , pp. 554-564, 2012.
- [4] S. Krinidis, M. Krinidis, and V. Chatzis, "Frequency-Based Deformable Models as a Distance Metric", Journal of Information Hiding and Multimedia Signal Processing, Vol. 3, No. 4, pp. 327-339, October 2012.
- [5] S. Krinidis, M. Krinidis, and V. Chatzis, "Workspace for Image Clustering Based on Empirical Mode Decomposition", IET Image Processing, vol.6, issue 6, pp.778-785, August 2012.
- [6] S. Krinidis, M. Krinidis, and V. Chatzis, "An Unsupervised Image Clustering Method Based on EEMD Image Histogram", Journal of Information Hiding and Multimedia Signal Processing, Vol. 3, No. 1, pp. 151-163, April 2012.
- [7] S. Krinidis, M. Krinidis, and V. Chatzis, "An Empirical Method for Threshold Selection", International Journal of Signal Processing, Image Processing and Pattern Recognition, vol 5, no. 2, pp. 101-114, June 2012.
- [8] S. Krinidis and V. Chatzis, "A Physics-Based Dual Deformable Model", Journal of Information Hiding and Multimedia Signal Processing, vol. 3, No. 1, pp. 100-121, January 2012.
- [9] S. Krinidis and V. Chatzis, "A Robust Fuzzy Local Information C-means Clustering Algorithm", IEEE Trans. on Image Processing, vol. 19, no 5, pp. 1328-1337, 2010.
- [10] S. Krinidis and V. Chatzis, "Fuzzy Energy-Based Active Contours", IEEE Trans. on Image Processing, vol. 18, no 12, pp. 2747-2755, 2009.
- [11] S. Krinidis and V. Chatzis, "A Skeleton Family Generator via Physics-Based Deformable Models", IEEE Trans. on Image Processing, vol. 18, no. 1, pp. 1-11, 2009.
- [12] S. Krinidis and V. Chatzis, "Principal Axes Estimation Using the Vibration Modes of Physics-Based Deformable Models", IEEE Trans. on Image Processing, vol. 17, no. 6, pp. 1007-1019, June 2008.
- [13] V. Chatzis and I. Pitas, "Interpolation of 3D Binary Objects using Morphological Skeletonization", IEEE Trans. on Medical Imaging, vol. 19, no. 7, pp. 699-710, July 2000.
- [14] V. Chatzis and I. Pitas, "A Generalized Fuzzy Mathematical Morphology and its Application in Robust 2D and 3D Object Representation", IEEE Trans. on Image Processing, vol. 9, no. 10, pp. 1798-1810, October 2000.
- [15] V. Chatzis, A. G. Bors and I. Pitas, "Multimodal Decision Level Fusion for Person Authentication", IEEE Trans. on Systems, Man and Cybernetics, part A, vol. 29, no. 6, pp. 674 -680, November 1999.
- [16] V. Chatzis and I. Pitas, "Fuzzy Scalar and Vector Median Filters based on Fuzzy Distances", IEEE Trans. on Image Processing, vol. 8, no. 5, pp. 731-734, May 1999.
- [17] V. Chatzis and I. Pitas, "Nonlinear Location and Scale Estimators of Fuzzy Numbers", IEEE Trans. on Signal Processing, vol. 46, no 1, pp. 231-234, January 1998.
- [18] V. Chatzis and I. Pitas, "Fuzzy Cell Hough Transform for Curve Detection", Pattern Recognition, Elsevier, vol. 30, no. 12, pp. 2031-2042, December 1997.

CONFERENCES:

(The conference papers have been cited 12 times)

- [1] K. Xenitidis, V. Mardiris and V. Chatzis, "A Novel Methodology for Sailing Boat Waterline Plane Definition Using 3D Point Cloud", in 4th Panhellenic Conference on Electronics and Telecommunications, 17-18 November 2017, Xanthi, Greece.
- [2] V. Chatzis, F. Panagiotopoulos and V. Mardiris, "Face to iris area ratio as a feature for children detection in digital forensics applications", in Digital Media Industry and Academic Forum, 4-6 July 2016, Santorini, Greece.
- [3] V. Chatzis, M. Kitsikoglou, F. Panagiotopoulos and V. Mardiris, "Factors affecting consumer intention to use internet for food shopping", in Proceedings of Management of International Business and Economic Systems (MIBES) International Conference, May 2014, Thessaloniki, Greece.
- [4] H. Kouloura, V. Chatzis, "Sustainable water management in buildings. A systemic approach for the improvement of water management in buildings", 2013 HSSS 9th. National & International Conference Systemics for Process Cohesion, 11-13 July 2013, Volos, Greece.
- [5] Fotios Panagiotopoulos, Vassilios Mardiris and Vassilios Chatzis : Quantum-Dot Cellular Automata Design for Median Filtering and Mathematical Morphology Operations on Binary Image, International Conference on Cellular Automata for Research and Industry, ACRI 2012, Santorini Greece, 24-27 September 2012.

- [6] Michail Krinidis, Stelios Krinidis, Vassilios Chatzis, "A Novel Workspace For Image Clustering", in 17th International Conference on Digital Signal Processing, 6-8 July 2011, Corfu, Greece.
- [7] Kosmas Kosmidis, Vassilios Chatzis, Antonios Stavropoulos, Konstantinos Terzidis, "Incorporating TQM in higher education: Students' assessment of academic performance", in Proceedings of Management of International Business and Economic Systems (MIBES) International Conference, June 2010, Kavala, Greece.
- [8] L. Frigidis, V. Chatzis, "Modelling Hospital Expenses for a Patient Accounting System", in International Bulgarian-Greek Conference in Computer Science, Kavala, Greece, September 2008.
- [9] V. Mardiris, Ch. Mizas, L. Frigidis, V. Chatzis, "Design and simulation of a QCA 2 to 1 multiplexer ", Proceedings of the 12th WSEAS International Conference on Computers, pp. 572-576, Heraklion, Greece, July 2008.
- [10] L. Frigidis, A. Michailidis, V. Mardiris, V. Chatzis, "Web Based Application for Registering Degree Projects", Proceedings of the 12th WSEAS International Conference on Computers, pp. 567-571, Heraklion, Greece, July 2008.
- [11] Vassilios Chatzis, Eleni Apostolidou, Ioanna Pantelidou and Agni Moutzourougou, "Work-Related Learning In Higher Education Around Europe", in Proceedings of the International Technology, Education and Development Conference (INTED 2008), Valencia, Spain, March 3-5, 2008.
- [12] M. Syggourogou, L. Frigidis, V. Mardiris and V. Chatzis, "An Internet Application for Lab-Group Booking Using Open Source Software", Proceedings of the 3rd WSEAS/IASME International Conference on Educational Technologies, pp. 412-415, Arcachon, France, October 13-15, 2007.
- [13] D. Markopoulos, L. Frigidis, V. Mardiris, V. Chatzis, "Web Based html-rich text Editor 'web-editor' Using Open Source Software", International Bulgarian-Turkish Conference in Computer Science, Istanbul, Turkey, October 2006.
- [14] Stelios Krinidis and Vassilios Chatzis, "Frequency-Based Object Orientation and Scaling Determination", in IEEE International Symposium on Circuits and Systems (ISCAS'06), pp. 2385-2388, May 21-24, 2006, Island of Kos, Greece.
- [15] Vassilios Chatzis, Vassilis G. Kaburlasos and Michalis Theodorides, "An Image Processing Method for Particle Size and Shape Estimation", Second International Scientific Conference in "COMPUTER SCIENCE", Part II, pp. 7-12, 30th September – 2nd October 2005, Chalkidiki, Greece.
- [16] Ioannis Koustoudis and Vassilios Chatzis, "An Object-Oriented Programming Distance Learning Application (Διαδικτυακή Εφαρμογή για την Απόσταση Εκπαίδευση στον Αντικειμενοστραφή Προγραμματισμό)", 3rd International Conference on Open and Distance Learning 'Applications of Pedagogy and Technology', Vol.B, pp.271-278, 11-13 November 2005, Patra, Greece.
- [17] Vassilis Kaburlasos, Vassilios Chatzis, Vassilios Tsiantos and Michael Theodorides, "granular Self-Organizing Map (grSOM) neural network for industrial quality control", Mathematical Methods in Pattern and Image Analysis, eds. J. T. Astola, I. Tabus, J. Barrera, Proc. Of SPIE Vol. 5916, in Int. Symposium on Optics & Photonics, 31 July-4 August 2005, San Diego, California USA.
- [18] L. Frigidis, V. Mardiris, C. Mizas and V. Chatzis, "Examinations Past Papers 'e-Bank' Using Open Source Software", WSEAS Trans. on Information Science and Applications, vol. 1, iss. 5, pp. 1220-1224, November 2004.
- [19] L. Frigidis, V. Mardiris, C. Mizas, S. Simeonidis and V. Chatzis, "Electronic Examinations 'e-Exams' Using Open Source Software", WSEAS Trans. on Information Science and Applications, vol. 1, iss. 5, pp. 1225-1230, November 2004.
- [20] V. Chatzis and I. Pitas, "Shape-Based Interpolation of Binary 3-D Images using Morphological Skeletonization", IEEE Int. Conf. on Multimedia Computing and Systems (ICMCS'99), vol. 2, pp. 939-943, Florence, Italy, 7-11 June 1999.
- [21] V. Chatzis, A. G. Bors and I. Pitas, "Decision Level Fusion by Clustering algorithms for Person Authentication", IX European Signal Processing Conference (EUSIPCO 1998), pp. 1309-1312, Rodos, 8-11 September 1998.
- [22] N. Nikopoulos, V. Chatzis and I. Pitas, "3D Binary Fast Morphological Shape Decomposition", 1998 Workshop on Nonlinear Model-Based Image Analysis (NMBIA 98), pp. 27-32, Glaskow, July 1998.
- [23] V. Chatzis and I. Pitas, "Fuzzy Vector Median Definition based on a Fuzzy Vector Distance", 1997 IEEE Workshop on Nonlinear Signal and Image Processing (NSIP'97), CD proceedings, Michigan, USA, 7-11 September 1997.
- [24] V. Chatzis and I. Pitas, "Randomized Fuzzy Cell Hough Transform", Sixth IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'97), Barcelona, Spain, vol. II, pp. 1185-1190, July 1997.
- [25] V. Chatzis and I. Pitas, "Select and Split Fuzzy Cell Hough Transform - A fast and efficient method to detect contours in images", Fifth IEEE Conference on Fuzzy Systems (FUZZ-IEEE'96), vol. 3, pp. 1892-1898, September 1996, New Orleans, USA.
- [26] V. Chatzis and I. Pitas, "Fuzzy Cell Hough Transform", VIII European Signal Processing Conference (EUSIPCO'96), vol. III, pp.1717-1720, September 1996, Trieste, Italy.
- [27] V. Chatzis and I. Pitas, "Introducing the Select and Split Fuzzy Cell Hough Transform", 13th International Conference on Pattern Recognition (ICPR'96), vol. II, pp. B552-B556, August 1996, Vienna, Austria.
- [28] N. Nikopoulos, C. Dimou, V. Chatzis and I. Pitas, "Simulation of an Access Control System for Image-Related Services", 1996 International Conference on Electronics, Circuits and Systems (ICECS'96), vol. 1, pp. 354-357, October 1996, Rodos, Greece.
- [29] V. Chatzis and I. Pitas, "Mean and Median of Fuzzy numbers", 1995 IEEE Workshop on Nonlinear Image & Signal Processing (NSIP'95), pp. 297-300, June 1995, N. Marmaras, Greece.