

# Dr. Anastasios L. Kesidis

## Curriculum vitae

### I. EDUCATION

- 2001                      PhD Degree, Department of Electrical and Computer Engineering,  
Democritus University of Thrace, Xanthi, Greece
- 1995                      Diploma Degree, Department of Electrical and Computer  
Engineering, Democritus University of Thrace, Xanthi, Greece

### II. ACADEMIC POSITIONS

- 2016-present        Associate Professor  
Department of Surveying and Geoinformatics Engineering  
University of West Attica, Greece
- 2010-2016            Assistant Professor  
Department of Civil Engineering and Surveying & Geoinformatics  
Engineering  
Technological Educational Institution of Athens, Greece

### III. RESEARCH AND PROFESSIONAL POSITIONS

- 2005-2010            Research Scientist  
National Centre for Scientific Research "Demokritos"  
Athens, Greece
- 2002-2005            Project Manager  
Business Systems International  
Athens, Greece
- 2000-2002            Postdoctoral Research Fellow  
Centre for Vision, Speech and Signal Processing  
University of Surrey, UK

### IV. TEACHING

- **Artificial Intelligence** (2020-present)  
Department of Surveying and Geoinformatics Engineering  
University of West Attica
- **Data mining** (2020-present)  
Master's Programme, Department of Informatics  
University of West Attica (co-teaching)
- **Introduction to Digital Image Processing** (2019-present)  
Department of Surveying and Geoinformatics Engineering  
University of West Attica
- **Programming Techniques & Algorithms** (2019-present)  
Department of Surveying and Geoinformatics Engineering  
University of West Attica
- **Digital Image Processing** (2016-present)  
Master's Programme, Department of Surveying and Geoinformatics Engineering

- University of West Attica
- **Numerical Methods** (2014-present)  
Department of Surveying and Geoinformatics Engineering  
University of West Attica
  - **Database Programming** (2014-present)  
Department of Surveying and Geoinformatics Engineering  
University of West Attica
  - **Pattern Recognition** (2013-2020)  
Master's Programme, Department of Informatics  
University of West Attica
  - **Introduction to Image Processing** (2010-present)  
Master's Programme, Department of Informatics  
University of West Attica (co-teaching)
  - **Artificial Intelligence** (2010-2012)  
Master's Programme, Department of Informatics  
Technological Educational Institution of Athens (co-teaching)
  - **Programming Applications** (2008-2014)  
Department of Civil Engineering and Surveying & Geoinformatics Engineering  
Technological Educational Institution of Athens
  - **Programming & Informatics** (2004-2019)  
Department of Surveying and Geoinformatics Engineering  
University of West Attica

## V. PUBLICATIONS

A. L. Kesidis and N. Papamarkos, "On the inverse Hough transform," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 21, no. 12, pp. 1329–1343, 1999.

A. Kesidis and N. Papamarkos, "On the inverse Hough transform and its application for edge detection and filtering," in *Proceedings of the International Conference on Computational Intelligence for Modeling Control and Automation, CIMCA*, 1999, vol. 99, pp. 48–53.

A. L. Kesidis and N. Papamarkos, "A window-based inverse Hough transform," *Pattern Recognition*, vol. 33, no. 6, pp. 1105–1117, 2000.

A. L. Kesidis and N. Papamarkos, "On the gray-scale inverse Hough transform," *Image and Vision Computing*, vol. 18, no. 8, pp. 607–618, 2000.

A. L. Kesidis and N. Papamarkos, "A gray-scale inverse Hough transform algorithm," in *2000 IEEE International Symposium on Circuits and Systems (ISCAS)*, 2000, vol. 5, pp. 297–300.

A. L. Kesidis and N. Papamarkos, "A window-based gray-scale inverse Hough transform algorithm and its applications on gray-scale line filtering," in *Proceedings 2001 International Conference on Image Processing (Cat. No. 01CH37205)*, 2001, vol. 3, pp. 154–157.

A. Kesidis and N. Papamarkos, "Exact reconstruction of gray-scale images from projections," in *Recent Trends in Multimedia Information Processing*, 2002, pp. 317–321.

- A. Kesidis and N. Papamarkos, "Exact image reconstruction using a limited number of projection samples," in *Proceedings of the 3rd International Symposium on Image and Signal Processing and Analysis*, 2003, vol. 1, pp. 465–470.
- S. Perantonis, B. Gatos, K. Ntzios, I. Pratikakis, I. Vrettaros, A. Drigas, C. Emmanouilidis, A. Kesidis, D. Kalomirakis, "A system for processing and recognition of old Greek manuscripts(the D-SCRIBE project).," *WSEAS Transactions on Computers*, vol. 3, no. 6, pp. 2049–2057, 2004.
- A. L. Kesidis and N. Papamarkos, "Grayscale image reconstruction from projections with linear noise response," in *IEEE Workshop on Signal Processing Systems Design and Implementation, 2005.*, 2005, pp. 347–352.
- B. Gatos, I. Pratikakis, A. L. Kesidis, and S. Perantonis, "Efficient off-line cursive handwriting word recognition," in *10<sup>th</sup> International Workshop on Frontiers in Handwriting Recognition (IWFHR)*, 2006.
- A. L. Kesidis and N. Papamarkos, "Exact Grayscale Image Reconstruction from Projections," *International Journal of Pattern Recognition and Artificial Intelligence*, vol. 20, no. 05, pp. 711–725, 2006.
- A. L. Kesidis and B. Gatos, "A robust image watermarking technique based on spectrum analysis and pseudorandom sequences.," in *Proceedings of the 2<sup>nd</sup> International Conference on Computer Vision Theory and Applications (Volume 1)*, 2007, pp. 121–126.
- N. Stamatopoulos, B. Gatos, and A. Kesidis, "Automatic borders detection of camera document images," in *2nd International Workshop on Camera-Based Document Analysis and Recognition, Curitiba, Brazil*, 2007, pp. 71–78.
- A. L. Kesidis, "Limited Angle Image Reconstruction Using Four High Resolution Projection Axes at Co-Prime Ratio View Angles.," in *Proceedings of the 3<sup>rd</sup> International Conference on Computer Vision Theory and Applications (Volume 1)*, 2008, pp. 50–57.
- A. L. Kesidis and N. Papamarkos, "Exact image reconstruction from a limited number of projections," *Journal of Visual Communication and Image Representation*, vol. 19, no. 5, pp. 285–298, 2008.
- T. Konidaris, B. Gatos, S. J. Perantonis, and A. Kesidis, "Keyword matching in historical machine-printed documents using synthetic data, word portions and dynamic time warping," in *8<sup>th</sup> IAPR International Workshop on Document Analysis Systems*, 2008, pp. 539–545.
- D. I. Kosmopoulos, P. Antonakaki, K. Valasoulis, A. Kesidis, and S. Perantonis, "Human behavior classification using multiple views," in *Hellenic Conference on Artificial Intelligence*, 2008, pp. 123–134.
- D. Kosmopoulos, A. Kesidis, P. Antonakaki, K. Valasoulis, and S. J. Perantonis, "SemVeillance System: Tracking and behavior recognition under occlusions," in *18<sup>th</sup> European Conference on Artificial Intelligence*, 2008.
- A. Kesidis, E. Galiotou, B. Gatos, A. Lampropoulos, I. Pratikakis, I. Manolessou, A. Ralli, "Accessing the content of Greek historical documents," in *Proceedings of The 3<sup>rd</sup> Workshop on Analytics for Noisy Unstructured Text Data*, 2009, pp. 55–62.

- A. L. Kesidis and D. I. Kosmopoulos, "Robust Occlusion Handling with Multiple Cameras using a Homography Constraint.," in ***Proceedings of the 4<sup>th</sup> International Conference on Computer Vision Theory and Applications (Volume 2)***, 2009, pp. 560–565.
- B. Gatos, A. L. Kesidis, and A. Papandreou, "Adaptive zoning features for character and word recognition," in ***2011 International Conference on Document Analysis and Recognition***, 2011, pp. 1160–1164.
- A. L. Kesidis, E. Galiotou, B. Gatos, and I. Pratikakis, "A word spotting framework for historical machine-printed documents," ***International Journal on Document Analysis and Recognition (IJ DAR)***, vol. 14, no. 2, pp. 131–144, 2011.
- A. L. Kesidis and B. Gatos, "Efficient cut-off threshold estimation for word spotting applications," in ***2011 International Conference on Document Analysis and Recognition***, 2011, pp. 279–283.
- G. Louloudis, A. L. Kesidis, and B. Gatos, "Efficient word retrieval using a multiple ranking combination scheme," in ***10th IAPR International Workshop on Document Analysis Systems***, 2012, pp. 379–383.
- P. Giampouras, E. Charou, and A. Kesidis, "Artificial Neural Network Approach for Land Cover Classification of Fused Hyperspectral and Lidar Data," in ***IFIP International Conference on Artificial Intelligence Applications and Innovations***, 2013, pp. 255–261.
- A. Kesidis and D. Karatzas, "Logo and trademark recognition," in ***Handbook of Document Image Processing and Recognition***, 2014, pp. 591–646.
- A. L. Kesidis, N. Vassilas, T. Tsenoglou, and D. Ghazanfarpour, "Experimental sensitivity investigation of mean-shift variants to bandwidth parameters for 3D buildings reconstruction," in ***9th International Symposium on Image and Signal Processing and Analysis (ISPA)***, 2015, pp. 114–119.
- E. Spyrou, A. Kesidis, P. Kolliopoulos, T. Tsenoglou, E. Bratsolis, S. Gyftakis, E. Charou, N. Vassilas, "Comparative study of visual feature extraction methods for building retrieval on urban databases," in ***6th International Conference on Information, Intelligence, Systems and Applications (IISA)***, 2015, pp. 1–6.
- T. Konidakis, A. L. Kesidis, and B. Gatos, "A segmentation-free word spotting method for historical printed documents," ***Pattern Analysis and Applications***, vol. 19, no. 4, pp. 963–976, 2016.
- G. Papadopoulos, N. Vassilas, and A. Kesidis, "Convolutional Neural Network for Detection of Building Contours Using Multisource Spatial Data," in ***International Conference on Engineering Applications of Neural Networks***, 2019, pp. 335–346.
- E. N. Zois, D. Tsourounis, I. Theodorakopoulos, A. L. Kesidis, and G. Economou, "A comprehensive study of sparse representation techniques for offline signature verification," ***IEEE Transactions on Biometrics, Behavior, and Identity Science***, vol. 1, no. 1, pp. 68–81, 2019.
- A. L. Kesidis and B. Gatos, "Providing Access to Old Greek Documents Using Keyword Spotting Techniques," in ***Visual Computing for Cultural Heritage***, Springer, Cham, 2020, pp. 85–102.

N. Merlemis, A. Kesidis, and I. Sianoudis, "Measurement of laser beam spatial profile by laser scanning," *European Journal of Physics*, 2020.

V. Krassanakis and A. L. Kesidis, "MatMouse: A Mouse Movements Tracking and Analysis Toolbox for Visual Search Experiments," *Multimodal Technol. Interact.* 2020, 4, 83.

## VI. INTERNATIONAL PATENTS

- MEASUREMENT OF MITOTIC ACTIVITY, European Patent EP1579375, 2006  
Guittet; Christelle (FR), Ducksbury; Paul Gerard (GB), M., Petrou; Maria (GB), Kesidis; Anastasios (GR), Cipolla; Roberto (GB), Varga; Margaret (GB)
- HISTOLOGICAL ASSESSMENT, United States Patent 7079675, 2006  
Hamer; Michael J (GB), Petrou; Maria (GB), Kesidis; Anastasios (GR), Varga; Margaret (GB)
- HISTOLOGICAL ASSESSMENT OF NUCLEAR PLEOMORPHISM, European Patent EP1579366, 2007  
Petrou; Maria (GB), Kesidis; Anastasios (GR), Varga; Margaret (GB), Ducksbury; Paul Gerard (GB)
- MEASUREMENT OF MITOTIC ACTIVITY, United States Patent 7577280, 2009  
Guittet; Christelle (FR), Ducksbury; Paul Gerard (GB), M., Petrou; Maria (GB), Kesidis; Anastasios (GR), Cipolla; Roberto (GB), Varga; Margaret (GB)
- METHOD, APPARATUS AND COMPUTER PROGRAM FOR MEASUREMENT OF MITOTIC ACTIVITY, European Patent EP1760634, 2009  
Varga; Margaret (GB), Guittet; Christelle (FR), Ducksbury; Paul Gerard (GB), Petrou; Maria (GB), Kesidis; Anastasios (GR), Cipolla; Roberto (GB)
- HISTOLOGICAL ASSESSMENT OF NUCLEAR PLEOMORPHISM, United States Patent 7616790, 2009  
Petrou; Maria (GB), Kesidis; Anastasios (GR), Varga; Margaret (GB), Ducksbury; Paul Gerard (GB)

## VII. MASTER'S THESIS SUPERVISION

- Word Spotting for the automatic indexing of Historical Manuscripts, George Papadopoulos, Master's Thesis, 2015
- Image Retrieval Platform for building recognition in urban environments, Stavros Niafas, Master's Thesis, 2016
- Intelligent Travel Planner: A travel recommendation system based on fuzzy folksonomy, Eirini Pantopoulou, Master's Thesis, 2017
- Boarder line Classification with Deep Learning, Ioannis Nikolaidis, Master's Thesis, 2019

## VIII. REVIEW BOARDS

- International Journals  
Electronic Letters  
Signal Processing

Journal of Mathematical Imaging and Vision  
Advances in Multimedia  
Research Letters in Signal Processing  
Journal of Electronic Imaging  
Applied Sciences  
International Journal on Document Analysis and Recognition  
IEEE Transactions on Image Processing  
Pattern Recognition  
Artificial Intelligence Review

- International Conferences

Int. Conf. on Computer Vision Theory and Applications (VISAPP)  
Int. Conf. on Computer Vision Systems (ICVS)  
Int. Conf. on Pattern Recognition (ICPR)  
IEEE Conference on Games (CoG)  
Int. Conf. on Document Analysis and Retrieval (ICDAR)  
Int. Conf. on Systems, Signals and Image Processing (IWSSIP)  
Int. Workshop on Document Analysis Systems (DAS)  
Int. Conf. on Frontiers in Handwriting Recognition (ICFHR)