Personal Information:

Name Surname:	Spiros A. Kostopoulos
Birth Date, Place:	1977, Athens
Nationallity:	Hellenic
Marital Status:	Married, 2 children
Military service:	Fullfilled (2002)
Contact phone:	210-5387305 (work)
E-mail:	skostopoulos@uniwa.gr
Google Scholar:	https://scholar.google.gr/citations?hl=el&user=tqQaJWoAAAAJ
Scopus Author ID:	23389643900
Current position:	Associate Professor in the field of Medical Image Analysis, Department of Biomedical Engineering, University of West Attica

Education:

B.Sc in Medical Instrumentation Technology, Technological Educational Institute of Athens, **2000.**
M.Sc in Medical Physics. Department of Physics, School of Electronics and Physical Sciences, University of Surrey, **2004.**
Ph.D in Medical Physics, School of Medical Sciences, University of Patras, Greece. Thesis title: Development of supervised and unsupervised pixel-based classification methods for medical image segmentation, **2009.**

Publications in Journals/Conferences:

- 62 Journal publications in international peered-reviewed scientific journals
- 89 Publications in international conferences
- Scopus: >600 not self citations (h-index = 13), Google Scholar: ~1000 Citations (h-index = 17)

Full list of publications and citations is available at: https://bme.uniwa.gr/en/profile/skostopoulos/

Academic experience – Lecturing in Higher Education

UNDERGRADUATE

(2017-today) Associate Professor, Department of Biomedical Engineering, Faculty of Engineering, University of West Attica
1. Probability and Biostatistics
2. Digital Systems
3. Technical Drawing
4. Bioinformatics

(2008-2017) Adjunct laboratory instructor (Lecturer level), Department of Biomedical Engineering, Faculty of Technological Applications, Technological Educational Institute of Athens
Undergraduate Courses:
1. Computer Programming
2.3. Design & Manufacturing of Electromechanical Systems I & II
4. Mechanical Drawing
5. Electronic Drawing
6. Medical Image and Signal Processiing -II

(2005-2006) Scientific Associate, Research Program "Supporting educational and research activities of Medical Department of University of Patras", University of Patras, Greece

POSTGRADUATE

(2022-today) Postgraduate program – "Biomedical Engineering & Technology", Department of Biomedical Engineering, Faculty of Engineering, University of West Attica
Postgraduate Courses:
• Biostatistics
• Bioinformatics

(2014-2023) Postgraduate program – "Advanced Systems and Methods in Biomedical Engineering", Department of Biomedical Engineering, Faculty of Engineering, University of West Attica
Postgraduate Courses:
• Information Technologies in Medicine and other Biosciences
• Advanced Methods on Digital Signal and Image Processing

(2015) Postgraduate program – "Biomedical Methods and Technology in Diagnosis", Department of Medical Laboratories, Faculty of Health and caring Professions, Technological Educational Institute of Athens.
Postgraduate Course:
• Morphological study of neoplasmatic tumours by image analysis system

(2010-2016) Inter-departmental Postgraduate Course in "Medical Physics", Faculty of Medicine and Department of Physics, University of Patras, Greece.

Postgraduate Course:
• Mathematical Image Processing and Analysis ν

Distinctions:

Greek State Scholarship Foundation (IKY): 3 years scholarship for postgraduate studies after successful examinations in the field of biomedical engineering.

Reviewer in peer-reviewed international scientific journals and conferences:

ISSN: 1471-2105 – BMC Bioinformatics (2018, 2020)
ISSN: 2072-6694 – Cancers (2021)
ISSN: 0169-2607 – Computer Methods and Programs in Biomedicine (2012, 2014, 2015, 2016, 2019, 2020)
ISSN: 0010-4825 – Computers in Biology and Medicine (2016, 2017, 2018)
ISSN: 1573-3947 – Current Cancer Therapy Reviews (2017)
ISSN: 0952-1976 – Engineering Applications of Artificial Intelligence (2014)
ISSN: 1099-4300 – Entropy (2017)
ISSN: 2169-3536 – IEEE Access (2018)
ISSN: 1943-0671 – IEEE Embedded Systems Letters (2023)
ISSN: 2168-2194 – IEEE Journal of Biomedical and Health Informatics (2021)
ISSN: 0278-0062 – IEEE Transactions on Medical Imaging (2020)
ISSN: 1580-3139 – Image Analysis & Stereology (2015, 2017, 2018)
ISSN: 1368-2199 – Imaging Science Journal (2020)
ISSN: 1861-6410 – International Journal of Computer Assisted Radiology and Surgery (2008)
ISSN: 1660-4601 – International Journal of Environmental Research and Public Health (2022)
ISSN: 0899-9457 – Interntional Journal of Imaging Systems and Technology (2020, 2022)
ISSN: 1386-5056 – International Journal of Medical Informatics (2015, 2016, 2017, 2018)
ISSN: 1422-0067 – International Journal of Molecular Sciences (2015)
ISSN: 1468-3083 – Journal of the European Academy of Dermatology and Venereology (2020)
ISSN: 1357-633X – Journal of Telemedicine and Telecare (2011)
ISSN: 2227-7390 – Mathematics (2020)
ISSN: 1432-1769 – Machine Vision and Applications (2022)
ISSN: 1741-0444 – Medical & Biological Engineering & Computing (2022)
ISSN: 2473-4209 – Medical Physics (2017, 2022)
ISSN: 0941-0643 – Neural Computing and Applications (2016)
ISSN: 0893-6080 – Neural Networks (2018)
ISSN: 2045-2322 – Scientific Reports (2023)
ISSN: 1424-8220 – Sensors (2021)
ISSN: 2193-1801 – SpringerPlus (2014)
ISSN: 2073-8994 – Symmetry (2018)
4 Reviews: 19th International Conference on Pattern Recognition, Tampa, USA, ICPR 2008.
http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4760923
7 Reviews: 20th International Conference on Pattern Recognition, Istanbul, Turkey, ICPR 2010.
http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5597337
8 Reviews: 21st International Conference on Pattern Recognition, Tsukuba, Japan, ICPR 2012.
http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6460049
5 Reviews: 22nd International Conference on Pattern Recognition, Stockholm, Sweden, ICPR 2014.
http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6976722
4 Reviews: International Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences, Athens, Greece, BIOMEP 2015. http://biomep.teiath.gr/2015/committees.html
3 Reviews: 23rd International Conference on Pattern Recognition, Cancun, Mexico, ICPR 2016.
3 Reviews: International Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences, Athens, Greece, BIOMEP 2017.

TrackRecord

1. Representative publications as main author/researcher/corresponding:

Main researcher/corresponding

A. Theodosi, S. Ouzounis, **Spiros Kostopoulos**[ca], D. Glotsos, I. Kalatzis, V. Tzelepi, P. Ravazoula, P. Asvestas, D. Cavouras, and G. Sakelaropoulos, Design of a hybrid Deep Learning System for discriminating between low and high-grade colorectal cancer lesions, using microscopy images of IHC stained for AIB1 expression biopsy material, Machine Vision and Applications, 32 (3), Article number 58, **2021**. *doi: 10.1007/s00138-021-01184-8*

C. Konstandinou, **S. Kostopoulos**[ca], D. Glotsos, D. Papa, P. Ravazoula, G. Michail, I. Kalatzis, P. Asvestas, E. Lavdas, D. Cavouras, and G. Sakelaropoulos, GPU enabled design of adaptable Pattern Recognition System for discriminating squamous intraepithelial lesions of the cervix, using microscopy images of H&E

stained biopsy material from different medical centers, Biomedical Engineering/Biomedizinische Technik, 65 (3), pp.315-325, **2020**. *doi: 10.1515/bmt-2019-0040*

First author

S. Kostopoulos, P. Ravazoula, P. Asvestas, I. Kalatzis, G. Xenogiannopoulos, D. Cavouras, D. Glotsos, Development of a Reference Image Collection Library for histopathology image processing, analysis and decision support systems research, Journal of Digital Imaging, 30, pp. 287-295, **2017**. *doi: 10.1007/s10278-017-9947-8*

S. A. Kostopoulos, P. A. Asvestas, I. K. Kalatzis, G. C. Sakelaropoulos, T. H. Sakkis, D. A. Cavouras, and D. T. Glotsos, Adaptable Pattern Recognition System for discriminating Melanocytic Nevi from Malignant Melanomas using plain photography images from different image databases, International Journal of Medical Informatics, 105, pp.1-10, **2017**. *doi: 10.1016/j.ijmedinf.2017.05.016*

S. A. Kostopoulos, K. G. Vassiou, E. Lavdas, D. A. Cavouras, I. K. Kalatzis, P. A. Asvestas, D. L. Arvanitis, I. V. Fezoulidis, and D. T. Glotsos, Computer-based automated estimation of breast vascularity and correlation with breast cancer in DCE-MRI images, Magnetic Resonance Imaging, 35, pp. 39-45, **2017**. *doi: 10.1016/j.mri.2016.08.007*

S. Kostopoulos[ca], D. Glotsos, P. Asvestas, C. Konstandinou, G. Xenogiannopoulos, K. Sidiropoulos, E-K. Nikolatou, K. Perakis, S. Mantzouratos, T. Sakkis, G. Sakellaropoulos, G. Nikiforidis and D. Cavouras, An Ensemble Template Matching and Content-Based Image Retrieval Scheme Towards Early Stage Detection Of Melanoma, Image Analysis and Stereology, 35 (3), pp. 137-148, **2016**. *doi: 10.5566/ias.1446*

S. Kostopoulos, C. Konstandinou, K. Sidiropoulos, P. Ravazoula, I. Kalatzis, P. Asvestas, D. Cavouras, D. Glotsos, Assessing the performance of four different categories of histological criteria in brain tumors grading by means of a computer-aided diagnosis image analysis system, Journal of Microscopy, 260 (1), pp. 37-46, **2015**. *doi: 10.1111/jmi.12264*

S. Kostopoulos, K. Sidiropoulos, D. Glotsos, E. Athanasiadis, K. Boutsikou, E. Lavdas, G. Oikonomou, I. V Fezoulidis, M. Vlychou, M. Hantes, and D. Cavouras, Pattern-recognition system, designed on GPU, for discriminating between injured normal appearing and pathological articular cartilage, Magnetic Resonance Imaging, 31 (5), pp. 761-770, **2013**. *doi: 10.1016/j.mri.2012.10.029*

Main Researcher

C. Loukas, **S. Kostopoulos**, A. Tanoglidi, D. Glotsos, C. Sfikas, and D. Cavouras, Breast Cancer Characterization based on Image Classification of Tissue Sections Visualized under Low Magnification, Computational and Mathematical Methods in Medicine, Volume 2013, Article number 829461, **2013**. *doi: 10.1155/2013/829461*

P. Georgiadis, **S. Kostopoulos**, D. Cavouras, D. Glotsos, I. Kalatzis, K. Sifaki, M. Malamas, E. Solomou, G. Nikiforidis, Quantitative combination of volumetric MR imaging and MR spectroscopy data for the discrimination of meningiomas from metastatic brain tumors by means of pattern recognition, Magnetic Resonance Imaging 29 (4), pp. 525-535, **2011**. *doi: 10.1016/j.mri.2010.11.006*

First author

S. Kostopoulos, D. Glotsos, D. Cavouras, A. Daskalakis, I. Kalatzis, P. Georgiadis, P. Bougioukos, P. Ravazoula, and G. Nikiforidis, Computer based association of estrogen receptors expressed nuclei texture with histological grade using IHC-stained breast carcinomas, Analytical Quantitative Cytology Histology, 31 (4), pp. 187-196, **2009**. *https://pubmed.ncbi.nlm.nih.gov/19736866/*

2. Invited presentations to internationally established conferences and schools

4th Asia Digital Image Processing Conference (ADIP 2022), 19/12/2022
Speech: Medical image analysis for Alzheimers disease based on radiomics: preliminary results
http://www.adip.org/2022.html

EUROSON School “Elastography & Interventional US”, organized by the Hellenic Society for Ultrasound in Medical and Biology (HSUMB), 18-19 January 2019, Athens, Greece .
Speech: Artificial intelligence in the diagnosis of breast tumors
https://docplayer.gr/443219-Congress-secretariat-www-era-gr-info-era-gr-tel-30-210-36-34-944.html

European Conference of Medical Physics - Workshop on Biomedical Instrumentation and Related Engineering and Physical Sciences, Athens, Greece
Speech: Pattern recognition techniques in biological data analysis
http://biomep.teiath.gr/2014/docs/Workshop_BIOMEP_TEIBIT_V4.pdf

MEDICEXPO 2008, Olympic facilities, Elliniko, Greece
Speech: Development of histopathological image analysis method for quantification ER in breast cancer
http://biomep.teiath.gr/2014/docs/Workshop_BIOMEP_TEIBIT_V4.pdf

3. Organization of international conferences

Organizing & Scientific Committee
Advances in Biomedical Sciences Engineering and technology (ABSET) conference https://bmet.uniwa.gr/abset2023/), Athens, June 10-11, 2023

Scientific Committee
Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences (BIOMEP), Athens, October 12-13, 2017.

Scientific Committee
Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences (BIOMEP 2015), Athens, June 18-20, 2015.

Publication Committee
Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences (BIOMEP), Athens, June 21-22, 2013.

Session Chairman
Workshop on Bio-Medical Instrumentation and related Engineering and Physical Sciences (BIOMEP) Athens, July 6th, 2012.

4. Prizes, awards

(2011) Postdoctoral research grant from the National State Scholarship Foundation of Greece. Project title: Proteomic MS-spectra analysis for biomarker detection in urine bladder cancer.
(2004) National State Scholarship Foundation of Greece: 3 years scholarship for postgraduate studies after successful examinations in the field of biomedical engineering.

5. List of funded projects as Partner or Coordinator

Surrogate PI: (1/12/2020 – 31/3/2022). Co-financed by EU and Greece, "Deep learning algorithms for molecular imaging applications"

Co-applied and Main Researcher: (10.07.2014 – 30.09.2015). Bilateral Collaboration between Greece & Israel 2013-2015: ISR3233 "A Decision Support System for the Early Detection of Malignant Melanoma - MARK1".

Co-applied and Main Researcher: (01.06.2013 – 30.09.2015). Bilateral Collaboration between Greece & China 2012-2014: 12CHN181 "Multi-Channel Microwave Radiometry for Internal Body Temperature Measurements MMR-IBTM".

Co-applied and Main Researcher: (01.01.2013 –31.05.2015). Co-financed by EU and Greece, ARCHIMEDES III, "Development of a classification system for electroencephalographic Evoked Potentials related to the observation of correct or incorrect actions - EPOCA".

Co-applied and Main Researcher: (01.03.2012 –31.12.2014). Co-financed by EU and Greece, ARCHIMEDES III, "Innovative Computer-Aided Decision making system, combining MAMMOgraphic, histological and cytological image data, for improving breast cancer clinical management".

Co-applied and Main Researcher: (01.03.2012 –31.12.2014). Co-financed by EU and Greece, ARCHIMEDES III, "Protein mass spectrometry analysis for prostate cancer biomarkers identification".

Project Coordinator and Main Researcher: (02.2011-01.2012). Postdoctoral research grant from the National State Scholarship Foundation of Greece. "Proteomic MS-spectra analysis for biomarker detection in urine bladder cancer".

Research Associate: (1.09.2007 –31.10.2008). Research Committee – University of Patras, KARATHEODORIS 2004/B411: 'functional Laser Speckle Imaging, (fLSI)'.