

Lefteris (Eleftherios) Kontopodis, PhD, Dipl-Ing, BSc.

CONTACT INFORMATION

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Web [UNIWA](#), [LinkedIn](#), [Google Scholar](#)

WORK EXPERIENCE

- July 2023 - Present **Postdoc Researcher at University of West Attica - UNIWA**
[Department of Biomedical Engineering](#)
Comparative study of emotion recognition using EEG and fNIRS modalities
- January 2022 - December 2022 **Research Associate at National and Kapodistrian University of Athens NKUA**
[School of Medicine](#)
MSc “Global Health – Disaster Medicine”
Incorporating Arts on the Clinical Practice
- June 2012 - May 2021 **Research Assistant at Foundation of Research and Technology of Heraklion - FORTH**
[Computational Bio-Medicine Laboratory - CBML](#)
Medical Image Analysis, Quantitative Magnetic Resonance Imaging (MRI)
- October 2011- March 2012 **Internship in European Patent Office (Den Haag) ([EPO](#))**
Patent Classification
Diagnostic Imaging using X-ray, Magnetic Resonance Imaging and Ultrasound modalities, Detecting, measuring or recording for diagnostic purposes
- November 2004 - March 2006 **Obligatory military service**
In charge of Greek Army
- October 2003 - April 2004 **Trainee Technician, [GE Medical Systems Hellas S.A.](#)**
Professional training - Part of the studies at Technological Educational Institute of Athens
Installation, Support and Maintenance of Medical Systems
Diagnostic Imaging (Computed Tomography, Magnetic Resonance Imaging, Nuclear Medicine)

CURRICULUM VITAE

TEACHING EXPERIENCE

March 2022 -
July 2025

Adjunct Professor

University of West Attica,

Department of Biomedical Engineering

- “Pattern Recognition in Medicine and Biology”
- “Computer Programming”
- “Medical Electronics”
- “Medical Instrumentation”
- “Evolutionary Computation”
- “Neural Networks”
- “Optical Microscopy”
- “Decision Support Systems”

September 2024 – July
2025

Adjunct Professor

University of West Attica,

MSc Biomedical Engineering and Technology

- “The science of biomedical engineering”
- “Research methodology”
- “Biomedical Instrumentation”

EDUCATION

December 2018 -
July 2025

Five years Diploma in Arts, Athens School of Fine Arts

Department of Painting, Under the supervision of prof. Zafos Xagoraris

March 2015 -
July 2020

PhD in quantitative MRI Medical Imaging, University of Crete

School of Medicine, PhD Thesis: *Multi parametric analysis of quantitative indexes of multiple non-conventional MRI techniques for Multi Sclerosis and Clinical Isolated Syndrome patients*

April 2007 -
July 2011

Five years Diploma, National Technical University of Athens

School of Electrical and Computer Engineering

Specialization in Electronics and Systems

Diploma Thesis: *Applications of image segmentation algorithms to archaeological digital object representations*

September 1999 -
September 2004

BSc in Biomedical Engineering, Technological Educational Institute of Athens

Faculty of Technological Applications (now UNIWA - BME)

Biomedical Technology, Biomedical Instrumentation, Medical Physics

Bachelor Thesis: *Implementation of a Voice Recognition System*

September 1996 -
June 1999

Senior High School, 1st Technical Vocational Lyceum of Heraklion, Crete

Department of Electronic Installations and Automation

CURRICULUM VITAE

RESEARCH INTERESTS

- *Art, Science, Technology*
- *Medical Imaging/Signal processing*

SCHOLARSHIPS - MEMBERSHIPS

PhD funded by Hellenic Foundation for Research and Innovation ([H.F.R.I.](#)).

ARCHERS (“Advancing Young Researchers’ Human Capital in Cutting Edge Technologies in the Preservation of Cultural Heritage and the Tackling of Societal Challenges”) Stavros Niarchos Foundation.

Member of [TECHNO-LOGIA](#) Hub, Research Dissemination Hub on Art in a Techno-Logical Society.

PROGRAMMING – COMPUTER SKILLS

Matlab, Python, C, Arduino, Computer Hardware

LANGUAGES

Greek (Native Speaker)
English (First Certificate in English)

GROUP (ARTISTIC) EXHIBITIONS

1. Do electric sheep dream? The human condition in the age of Artificial Intelligence | Athens, 2024, “Under (the) control”, interactive installation, **Lefteris Kontopodis**
2. Do electric sheep dream? The human condition in the age of Artificial Intelligence | Athens, 2024, “human mechanisation, machine humanisation”, interactive installation, **Lefteris Kontopodis**, Panagiotis Filntisis, Vivi Valergaki, Paris Economou, Katerina Skouroliahou, Tassos Roussos
3. Dans L'image - Inside The Image - Re-enacting cinema through extended media, Athens 12-2023 (pending), “Random Walk”, interactive participatory installation, Fournos Lab and École nationale supérieure des Arts Décoratifs, **Kontopodis Lefteris**, Roussos Tassos, Zoi Stavroula
4. Chaniartoon festival, Chania, 2023, “Random Walk”, interactive participatory installation, **Kontopodis Lefteris**, Roussos Tassos, Zoi Stavroula.
5. Platforms, ASFA Open Spaces, 2019, “The Cave”, interactive installation, **Kontopodis Lefteris**.
6. Tehni Kathodon, Heraklion Municipality, 2017 “Ink on Paper”, **Kontopodis Lefteris**.

PUBLICATION LIST

Journals (10)

1. Kakkos, I., Tzavellas, E., Feleskoura, E., Mourtakos, S., **Kontopodis, E.**, Vezakis, I., & Skouroliahou, A. (2025). EEG-Based Assessment of Cognitive Resilience via Interpretable Machine Learning Models. *AI*, 6(6), 112.
2. **Kontopodis, E.**, Papadaki, E., Trivizakis, E., Maris, T. G., Simos, P., Papadakis, G. Z. & Marias, K. (2021). Emerging deep learning techniques using magnetic resonance imaging data applied in multiple sclerosis and clinical isolated syndrome patients. *Experimental And Therapeutic Medicine*, 22(1149).
3. **Kontopodis, E.**, Marias, K., Manikis, G., Nikiforaki, K., Venianaki, M., Maris, T., & Papadaki, E. (2020). Extended perfusion protocol for MS lesion quantification. *Open Medicine*, 15(1), 520-530.
4. Katerina Nikiforaki, Georgios C Manikis, **Eleftherios Kontopodis**, Eleni Lagoudaki, Eelco de Bree, Kostas Marias, Apostolos H Karantanas, Thomas G Maris (2019). T2, T2* and spin coupling ratio as biomarkers for the study of lipomatous tumors. *Physica Medica*, Elsevier.
5. **Kontopodis, E.**, Venianaki, M., Manikis, G., Nikiforaki, K., Salvetti, O., Papadaki, E., Papadakis, G., Karantanas, A., & Marias, K. (2019). Investigating the role of model-based and model-free

- imaging biomarkers as early predictors of neoadjuvant breast cancer therapy outcome. *IEEE J Biomed Health Inform*, IEEE (<https://www.ncbi.nlm.nih.gov/pubmed/30716054>), doi: 10.1109/JBHI.2019.2895459.
6. Venianaki, M., Salvetti, O., de Bree, E., Maris, Th.G., Karantanas, A., **Kontopodis**, E., Nikiforaki, K., & Marias, K. (2018). Pattern recognition and pharmacokinetic methods on DCE-MRI data for tumor hypoxia mapping in sarcoma. *Multimedia Tools and Applications*, 77(8), 9417-9439, Springer US (1573-7721 (Online ISSN)), doi: <https://doi.org/10.1007/s11042-017-5046-6>.
 7. Spanakis, M., **Kontopodis**, E., Van Cauter, S., Sakkalis, V., & Marias, K. (2016). Assessment of DCE-MRI parameters for brain tumors through implementation of physiologically –based pharmacokinetic models approaches for Gd-DOTA. *Journal of Pharmacokinetics and Pharmacodynamics*, 19 September 2016, 43(5), 529-547, Springer US (1567-567X, 1573-8744 , <https://doi.org/10.1007/s10928-016-9493-x>), doi: 10.1007/s10928-016-9493-x.
 8. Roniotis, A., Oraiopoulou, M.E., Tzamali, E., **Kontopodis**, E., Van Cauter, S., Sakkalis, V., & Marias, K. (2015). A proposed paradigm shift in initializing cancer predictive models with DCE-MRI based PK parameters: A feasibility study. *Cancer Informatics* , 14(S4), 7-18.
 9. **Kontopodis**, E., Kanli, G., Manikis, G., Van Cauter, S., & Marias, K. (2015). Assessing Treatment Response Through Generalized Pharmacokinetic Modeling of DCE-MRI Data. , 14(4), 41-51.
 10. Kalaitzakis, G., Kavroulakis, L., Boursianis, T., Veneti, S., **Kontopodis**, E., Marias, K., Papadaki, E., Karantanas, A., & Maris, Th.G. (2014). Magnetic relaxation measurements on tissue mimicking phantoms: comparison between different fitting algorithms in MRI T2 calculations. *Physica Medica*, 30(1), 118-119.

Conferences (11)

1. I. Theocharakis, **E. Kontopodis**, D. Arampatzis, E. Athanasiadis, I. Theodorakopoulos, D. Glotsos, P. Asvestas, A. Raptis, Ch. Manopoulos, K. Moulakakis, J. Kakasis, I. Kalatzis, S. Kostopoulos (2025). A comparative study of machine learning systems in abdominal aortic segmentation. The International Conference on Applied Physics, Simulation and Computing (APSAC25), Amalfi Coast - Salerno, Italy, 21-23 June, 2025.D.
2. Arampatzis, E. Athanasiadis, **E. Kontopodis**, I. Theodorakopoulos, I. Theocharakis, S. Kostopoulos, D. Glotsos, P. Asvestas, A. Raptis, Ch. Manopoulos, K. Moulakakis, J. Kakasis, I. Kalatzis, (2025). A comparative study of unsupervised and deep learning methods for automatic segmentation of abdominal aortic aneurysm on CT images – Preliminary results. Journal publication in press (initially as oral presentation in the conference Genomics, Neuroscience, Therapeutics and Data Innovation Summit (GENEDIS), Athens 17-20 October 2024).
3. **E. Kontopodis**, C. Serafeim, D. Cavouras, I. Kalatzis, I. Kakkos, A. Skouroliahou, (2025). A Machine Learning framework for automatic cognitive task classification using dry electrode EEG data. Journal publication in press (initially as oral presentation in the conference Genomics, Neuroscience, Therapeutics and Data Innovation Summit (GENEDIS), Athens 17-20 October 2024).
4. **Lefteris, K. E.**, Dionisis, C., Christodoulos, S., Ioannis, K., & Aikaterini, S. (2024, November). A computational framework for discriminating among different cognitive workloads in EEG signals. In 2024 19th International Workshop on Semantic and Social Media Adaptation & Personalization (SMAP) (pp. 86-91). IEEE.
5. Venianaki, M., Karantanas, A., de Bree, E., Maris, T, **Kontopodis**, E., Nikiforaki, K., Salvetti, O., & Marias, K. (2018). Assessment of soft-tissue sarcomas perfusion using data-driven techniques. 2018 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI), 4-7 March 2018. (978-1-5386-2405-0 978-1-5386-2406-7), doi: 10.1109/BHI.2018.8333441 .
6. **Kontopodis**, E., Manikis, G., Skepasianos, I., Tsagkarakis, K., Nikiforaki, K., Papadakis Z., G., Maris, Th.G., Papadaki, E., Karantanas, A., & Marias, K. (2018). DCE-MRI radiomics features for predicting breast cancer neoadjuvant therapy response. 2018 IEEE International Conference on Imaging Systems and Techniques (IST), October 2018. doi: 10.1109/IST.2018.8577128 .
7. **Kontopodis**, E., Manikis, G., Nikiforaki, K., Venianaki, M., Marias, K., Maris, Th.G., Karantanas, A., & Papadaki, E. (2018). Incremental diagnostic information obtained via novel Dynamic Contrast Enhanced MRI framework applied on Multiple Sclerosis patients: a preliminary study. 2018 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI), 4-7 March 2018. (978-1-5386-2405-0 978-1-5386-2406-7), doi: 10.1109/BHI.2018.8333366 .

8. **Kontopodis, E.**, Karatzanis, I., Sakkalis, V., Buffa, F., & Marias, K. (2016). A DCE-MRI analysis workflow. Computer Graphics International (CGI), the 33rd Annual Conference, June 28-July 01, 2016.
9. Venianaki, M., **Kontopodis, E.**, Nikiforaki, K., de Bree, E., Salvetti, O., & Marias, K. (2016). A model-free approach for imaging tumor hypoxia from DCE-MRI data. Computer Graphics International (CGI), the 33rd Annual Conference, June 28-July 01, 2016.
10. Venianaki, M., **Kontopodis, E.**, Nikiforaki, K., de Bree, E., Maris, T., Karantanis, A., Salvetti, O., & Marias, K. (2016). Improving hypoxia map estimation by using model-free classification techniques in DCE-MRI images. 2016 IEEE International Conference on Imaging Systems and Techniques (IST), 4-6 Oct. (pp. 183-188). IEEE Xplore: IEEE doi: <http://dx.doi.org/10.1109/IST.2016.7738220> Date of publication: 10 Nov. 2016 .
11. Marias, K., Nikiforaki, K., Manikis, G., **Kontopodis, E.**, & Papanikolaou, N. (2016). Visualizing tumor environment with perfusion and diffusion MRI: Computational challenges. Computer Graphics International (CGI), the 33rd Annual Conference, June 28-July 01, 2016.

Books Chapter

1. Manikis, G., **Kontopodis, E.**, Nikiforaki, K., Marias, K., & Papanikolaou, N. (2016). Imaging biomarkers model-based analysis. Imaging Biomarkers: Development and Clinical Integration. Springer.

Patents

1. Manikis, G., **Kontopodis, E.**, & Marias, K. (2016). Apparatuses, methods and systems for estimating water diffusivity and microcirculation of blood using dw-mri data. May 19, 2016, Publication number: 20160139226 Filed: November 13, 2015.