Lefteris (Eleftherios) Kontopodis, PhD

CONTACT INFORMATION

Address Pallantos 26 Street, P.C. 11 853, Athens
Telephone(s) Cell: +306977666326, Tell: +302810213200
E-mail lkontopodis@gmail.com, elevkont@asfa.gr

Web LinkedIn, Google Scholar

WORK EXPERIENCE

July 2023 - Postdoc Researcher at University of West Attica - UNIWA

Present <u>Department of Biomedical Engineering</u>

Comparative study of emotion recognition using EEG and fNIRS modalities

January 2022 - Research Associate at National and Kapodistrian University of Athens

December 2022 NKUA

School of Medicine

MSc "Global Health – Disaster Medicine" Incorporating Arts on the Clinical Practice

June 2012 - Research Assistant at Foundation of Research and Technology

May 2021 of Heraklion

Computational Bio-Medicine Laboratory - CBML

Medical Image Analysis, Quantitative Magnetic Resonance Imaging (MRI)

October 2011- Internship in European Patent Office (Den Haag) (EPO)

March 2012 Patent Classification

Diagnostic Imaging using X-ray, Magnetic Resonance Imaging and Ultrasound

modalities, Detecting, measuring or recording for diagnostic purposes

November 2004 - **Obligatory military service**

March 2006 In charge of Greek Army

October 2003 - Trainee Technician, GE Medical Systems Hellas S.A.

April 2004 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)

TEACHING EXPERIENCE

October 2023 -**Adjunct Professor**

Institute of Vocational Training of the Greek Public Employment Service – Renti Present

> School of Network Technicians and Telecommunications "Call centres", "Mobile Networks", "Network Installation"

October 2023 -Adjunct Professor

Institute of Vocational Training of the Greek Public Employment Service – Renti Present

School of Mechatronics Technicians

"Communications and Network principles on Vehicles"

March 2022 -Adjunct Professor

University of West Attica, Department of Biomedical Engineering July 2023

"Pattern Recognition in Medicine and Biology", "Computer Programming",

"Medical Electronics", "Medical Instrumentation"

EDUCATION

December 2018 -Five years Diploma in Arts, Athens School of Fine Arts

July 2024 (expected) Department of Painting

Under the supervision of prof. Zafos Xagoraris

PhD in quantitative MRI Medical Imaging March 2015 -

University of Crete, School of Medicine July 2020

> PhD Thesis: Multi parametric analysis of quantitative indexes of multiple nonconventional MRI techniques for Multi Sclerosis and Clinical Isolated Syndrome

patients

April 2007 -Five years Diploma, National Technical University of Athens

School of Electrical and Computer Engineering July 2011

Specialization in Electronics and Systems

Diploma Thesis: Applications of image segmentation algorithms to

archaeological digital object representations

September 1999 -BSc in Biomedical Engineering, Technological Educational Institute of

September 2004 Athens

Faculty of Technological Applications (now <u>UNIWA - BME</u>)

Biomedical Technology, Biomedical Instrumentation, Medical Physics

Bachelor Thesis: Implementation of a Voice Recognition System

September 1996 -Senior High School, 1st Technical Vocational Lyceum

June 1999 of Heraklion, Crete

Department of Electronic Installations and Automation

Section of Electronics

RESEARCH **PROJECTS**

CURRICULUM VITAE

Scholarship

FORTH (internal) scholarship

01/07/2012 - 31/12/2012

Position

Associate Researcher (FORTH)

01/01/2013 - 31/05/2013

Development of therapeutic models for prediction of tumour treatment outcome, involving pharmacokinetics, pharmacodynamics and optimal in-silico dosage

ESPA Interreg Greece-Cyprus (national), 2007-2013

Position

Associate Researcher (FORTH)

01/06/2013 - 31/12/2013

Development of services on the medical imaging analysis platform

FP7-ICT-2009.5.3, No 270089 (EU)

Position

Associate Researcher (FORTH)

01/06/2013 - 31/12/2013

Development of therapeutic models for prediction of tumour treatment outcome, involving pharmacokinetics, pharmacodynamics and optimal in-silico dosage

Computational Horizons in Cancer: Developing Meta- and Hyper-Multiscale Models and Repositories for In Silico Oncology

FP7-ICT-2011.5.2 (600841)

Position

Associate Researcher (FORTH)

01/01/2014 - 30/06/2015

Development and validation of methods for biomarker extraction from medical images on tumour patients

FP7-ICT-2011.5.2 (600841)

Position

Associate Researcher (FORTH)

01/07/2015 - 31/12/2015

Development and implementation of informatics and the supportive applications towards the services of Greek National Health Service Organisation

ΠΑΡ00290-1 (national)

Scholarship

FORTH (internal) scholarship

01/01/2016 - 30/07/2017

Scholarship

Scholarship from the Hellenic Foundation for Research and Innovation (<u>H.F.R.I</u>)

for the PhD dissertation

Scholarship

01/09/2018 - 31/10/2020

01/08/2017 - 31/08/2018

Scholarship from 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.

CURRICULUM VITAE

Position

Associate Researcher (MED UOC)

01/11/2020 - 31/05/2021

Implementation of fMRI methods, development of parallel processing algorithms

for enhancing precision tensors

K.A. 10094, EYΔE ETAK 2592 /18-7-2018 (national)

Position

Associate Researcher (MED EKPA)

01/01/2022 - 06/06/2022

Support and supervision of 59 active university students in their thesis

Position

Associate Researcher (MED EKPA)

14/06/2022 - 13/09/2022

Educational services and guidance on the educational institutes of Cambodia and Vietnam.

15901- Education Hubs For Excellence in Midwifery» (SafeMa)

Position

Associate Researcher (MED EKPA)

01/09/2022 - 31/10/2022

Support and supervision of 59 active university students in their thesis

Position

Associate Researcher (MED EKPA)

01/11/2022 - 31/12/2022

Design and development of educational material for health professionals and health students, towards elimination of inequalities in LGBTQ community in the health services.

18570 (national)

RESEARCH INTERESTS

- ° Arts, Science Technology
- ° Brain and Mind
- ° human ⇔ Machine Interaction,
- Knowledge Representation,
- ° Medical Imaging

SCHOLARSHIPS

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

PROGRAMMING – COMPUTER SKILLS

Matlab, C, Arduino, Computer Hardware

LANGUAGES

Greek (Native Speaker)

English (First Certificate in English)

PERSONAL INTERESTS

Rock climbing, Mountaineering, Mountain Bike, Music

CURRICULUM VITAE

GROUP (ARTISTIC) EXHIBITIONS

- Tehni Kathodon, Heraklion Municipality, 2017 "Ink on Paper", Kontopodis Lefteris.
 Platforms, ASFA Open Spaces, 2019, "The Cave", interactive installation, Kontopodis Lefteris.
- 3. Chaniartoon festival, Chania, 2023, "Random Walk", interactive installation, Kontopodis Lefteris, Roussos Tassos, Zoi Stavroula.

PUBLICATION LIST

Conferences (7)

- 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.
- 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
- 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.
- 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.
- 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.
- Venianaki, M., Kontopodis, E., Nikiforaki, K., de Bree, E., Maris, T, Karantanas, 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.
- 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

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

Periodicals (9)

- 9. **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).
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

Others

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 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.