

Μάριος Αντωνιάκης

Βιογραφικό Σημείωμα

	Προσωπικές πληροφορίες
Τίτλος	Δρ. M.Sc. Ηλεκτρονικός Μηχανικός και Μηχανικός Υπολογιστών
Έτος γέννησης	1990
Μέρος γέννησης	Ηράκλειο Κρήτης
Τηλέφωνο επικοινωνίας	+30 6947739151
Ιστότοπος	https://www.researchgate.net/profile/Marios_Antonakakis
Email	mantonakakis@hmu.gr
Προσωπική κατάσταση	Παντρεμένος
Παιδιά	Ένα
Στρατ. υποχρεώσεις	Εκπληρωμένες
	Σπουδές
09/2008 – 09/2013	Δίπλωμά στην Σχολή Ηλεκτρονικών μηχανικών και μηχανικών υπολογιστών, Πολυτεχνείο Κρήτης, Ελλάδα. (Βαθμός: 8.34/10) Τίτλος Εργασίας: 'Ανάλυση μαγνητοεγκεφαλογραφήματος (MEG) με χρήση προβολής ανεξαρτήτων συνιστωσών (ICA)' Εργασία: https://dias.library.tuc.gr/view/13174
09/2013 – 09/2015	Μεταπτυχιακό (M.Sc.) στην Σχολή Ηλεκτρονικών μηχανικών και μηχανικών υπολογιστών, Πολυτεχνείο Κρήτης, Ελλάδα. Τίτλος Εργασίας: 'Μη Γραμμικές μέθοδοι συγχρονισμού σε δεδομένα μαγνητοεγκεφαλογραφίας (MEG)' Εργασία: https://dias.library.tuc.gr/view/29031
08/2016 – 04/2021	Διδακτορικό (Dr.-Ing.), Βιοϊατρική Μηχανική, Ινστιτούτο Βιοϊατρικής Μηχανικής και Πληροφορικής, Τμήμα Επιστήμης Υπολογιστών και Αυτοματισμού Πολυτεχνείο Ήλμενο, Ήλμενο, Γερμανία (Αριθμός Πράξης Αναγνώρισης ΔΟΑΤΑΠ: H8Δ12/2022). (Βαθμός: Magna Cum Laude), Τίτλος Εργασίας: 'Η επίδραση πειραματικών παραμέτρων και παραμέτρων μοντελοποίησης στην συνδυαστική ηλεκτρο- και μαγνητό- εγκεφαλογραφική ανάλυση πηγών και στη βέλτιστη διακριτική ηλεκτρική διέγερση επιληπτικής δραστηριότητας και δραστηριότητας από τον σωματοαισθητηριακό φλοιό' Εργασία: https://phdtheses.ekt.gr/eadd/handle/10442/55726 https://www.db-thueringen.de/receive/dbt_mods_00049153
	Τωρινές και προηγούμενες θέσεις
01/2026 – παρόν	Επίκουρος Καθηγητής, Τμήμα Ηλεκτρονικών Μηχανικών, Πολυτεχνειακή Σχολή Ελληνικό Μεσογειακό Πανεπιστήμιο (ΕΛΜΕΠΑ)
2013 – παρόν	Συνεργάτης ερευνητής, Πολυτεχνείο Κρήτης
2016 – παρόν	Συνεργάτης ερευνητής, Ινστιτούτο Βιομαγνητισμού και Βιοανάλυσης Σημάτων, Πανεπιστήμιο Μίνστερ, Γερμανία
2013 – παρόν	Συνεργάτης ερευνητής, Biomedical Engineering Group, Dept. of Biomedical Engineering, University of Houston, TX, USA
2022 – 2025	Ακαδημαϊκός Υπότροφος, Τμήμα Ηλεκτρονικών Μηχανικών, Πολυτεχνειακή Σχολή Ελληνικό Μεσογειακό Πανεπιστήμιο (ΕΛΜΕΠΑ)
2023 – 2024	Ερευνητικός Συνεργάτης, Τμήμα Ιατρικής, Πανεπιστήμιο Κρήτης

06/2011 – 08/2011	Ερευνητική και Επαγγελματική Εμπειρία Ελληνικό Κέντρο Θαλασσίων Ερευνών – Ανάπτυξη συστήματος εξόρυξης, οπτικοποίησης και αποθήκευσης δεδομένων από θαλάσσιους αισθητήρες
12/2013 – 03/2015	Συνεργάτης ερευνητής – Εργαστήριο DISPLAY, Πολυτεχνείο Κρήτης, Χανιά, Ελλάδα: Έργο ‘CyberSensors’ – Ανάπτυξη οπτικών συστημάτων επεξεργασίας εικόνας / βίντεο πραγματικού χρόνου για την διαχείριση υδάτων
05/2015 – 09/2015	Συνεργάτης ερευνητής – Toshiba, Εργαστήριο Επεξεργασίας Σήματος, Πανεπιστήμιο Πανεπιστημιακή Κλινική Ηράκλειου, Ηράκλειο Κρήτης, Ελλάδα: Έργο “Large scale evaluation of Phonocardiogram recordings” – Ανάπτυξη συστήματος μηχανικής εκμάθησης για χαρακτηρισμό παθολογικών φωνοκαρδιογραφημάτων
08/2016 – 02/2024	Μέλος της επιστημονικής ομάδας SIM-NEURO: Stimulation, Imaging and Modeling of NEURONal networks in the human brain (Head: Prof. Dr. Carsten Wolters), Ινστιτούτο Βιομαγνητισμού και Βιοανάλυσης Σημάτων, Πανεπιστήμιο Μίνστερ, Μίνστερ. Έργο: EU ITN project ChildBrain: www.childbrain.eu (08.2016-10.2018) – Συγγραφή παραδοτέων (https://cordis.europa.eu/project/id/641652/reporting), – Ανάπτυξη συστήματος μη επεμβατικής διάγνωσης επιληψίας με χρήση TN και HEG/MEG/MT. SPP1665 (11.2018 – 10.2018) – Ανάπτυξη συστήματος μη επεμβατικής θεραπείας επιληψίας με χρήση TN. – Συμμετοχή στην συγγραφή της πρότασης (https://era-permed.isciii.es/wp-content/uploads/2021/01/Newsletter-ERA-PerMed_final.pdf, page 13).
10/2020 – 05/2024	Horizon2020: BUAS - https://borderuas.eu/ – Ανάπτυξη φορητού συστήματος επεξεργασίας εικόνας / βίντεο πολύ υψηλής ανάλυσης πραγματικού χρόνου με TN (yolov5) για τον εντοπισμό/ιχνίλακτηση αντικειμένων (άνθρωπο, ζώο, όχημα) και κατάτμηση περιβάλλοντος.
01/2021 – 08/2021	Προηγμένο Σύστημα Πρόληψης Επικίνδυνων Καταστάσεων για Βρέφη (x (επ) ΒΛΕΨΙΣ) - https://xvlepsi.gr/ – Ανάπτυξη συστήματος εντοπισμού άπνοιας σε δεδομένα μικροφώνου με χρήση επεξεργασίας σήματος και μηχανικής μάθησης.
10/2021 – 10/2022	Υποστήριξη λειτουργίας των υπηρεσιών του ΕΛΚΕ για την πλήρη παρακολούθηση των προγραμμάτων και ιδιαιτέρως την πλήρη διοικητική υποστήριξη και οικονομική διαχείριση των προγραμμάτων που θα χρηματοδοτηθούν από το HORIZON 2020 και το ΕΣΠΑ 2014-2020») – Συμμετοχή στην συγγραφή ελληνικών και ευρωπαϊκών προτάσεων Προκηρύξεις ΕΔΒΜ – 143 και ΕΔΒΜ – 166, EPIDOCNET, smartHEALTH, I-PAM, PRISM, TREEFENCE
02/2022 – 08/2024	Horizon2020: RE-EURECA-PRO - https://www.eurecapro.eu/re-eureca-pro/ – Ανάπτυξη μηχανισμών για δημιουργία κοινού ευρωπαϊκού γραφείου μεταφοράς τεχνολογίας.
08/2022 – 12/2023	Χρηματοδότηση Λειτουργίας Δομών και Δράσεων Μεταφοράς Τεχνολογίας-Πολυτεχνείου Κρήτης (MIS) 5136151 - https://gnosi.tech/home/ – Συνεισφορά στις δράσεις γραφείου μεταφοράς τεχνολογίας του Πολ. Κρήτης
11/2022 – 06/2023	Απόκτηση Ακαδημαϊκής Διδακτικής Εμπειρίας σε Νέους Επιστήμονες Κατόχους Διδακτορικού 2022 – 2023 στο Ελληνικό Μεσογειακό Πανεπιστήμιο» με MIS 5180691

	– Παράδοση μαθημάτων στο τμήμα Ηλεκτρονικών Μηχανικών, ΕΛΜΕΠΙΑ
03/2023 – 08/2024	Συνεργάτης Ερευνητής, Τμήμα Ιατρικής Παν. Κρήτης, Ηράκλειο Κρήτης, Horizon2020: SIMFONIA - https://www.sinfonia-appraisal.eu/#home – Ανάπτυξη ψηφιακού βοηθού ΤΝ (chatGPT agent) για συμβουλές σε προσωπικό πυρηνικής ιατρικής και ανάπτυξη μοντέλων πρόβλεψης για προσομοίωση δοσολογίας στην ακτινοθεραπεία
11/2023 – 06/2024	Απόκτηση Ακαδημαϊκής Διδακτικής Εμπειρίας σε Νέους Επιστήμονες Κατόχους Διδακτορικού στο Ελληνικό Μεσογειακό Πανεπιστήμιο» με MIS 6003253
09/2024 – 02/2025	– Παράδοση μαθημάτων στο τμήμα Ηλεκτρονικών Μηχανικών, ΕΛΜΕΠΙΑ Απόκτηση Ακαδημαϊκής Διδακτικής Εμπειρίας σε Νέους Επιστήμονες Κατόχους Διδακτορικού στο Πολυτεχνείο» με MIS 6017330 – Παράδοση μαθημάτων στο τμήμα Χημικών Μηχανικών και Μηχανικών Περιβάλλοντος, Πολ. Κρήτης.
10/2023 – 01/2025	Εθνικό: https://smarthealth-edih.eu/ – Παροχή συμβουλευτικής σε ΜΜΕ υγείας / εκπαίδευσης σε φορείς υγείας
09/2025 – 2/2026	Απόκτηση ακαδημαϊκής διδακτικής εμπειρίας στο Ελληνικό Μεσογειακό Πανεπιστήμιο για το ακαδημαϊκό έτος 2025-2026» με MIS 6028711 – Παράδοση μαθημάτων στο τμήμα Χημικών Μηχανικών και Μηχανικών Περιβάλλοντος, Πολ. Κρήτης.
12/2024 – 12/2025	Εθνικό: https://safe-aorta.gr/ - Ανάπτυξη ΤΝ μοντέλων εντοπισμού και πρόβλεψης ανευρύσματος κοιλιακής αορτής
Τωρινά έργα	⇒ Ευρωπαϊκό (2024 – 2028): https://maasivetwinproject.eu/ - Διαχείριση δεδομένων και ανάπτυξη ΤΝ μοντέλων πρόβλεψης εφοδιαστικής αλυσίδας για δημιουργία μπαταριών. ⇒ Ευρωπαϊκό (2025 – 2027): EIT-HEI AquaSphere - Εκπαίδευση και ενδυνάμωση πανεπιστημίων σε θέματα γαλάζιας οικονομίας και υδάτινων πόρων. ⇒ Ευρωπαϊκό (2025 – 2027): Intereg Ελλάδα Κύπρος MOSAIC - <i>Αποτύπωση, Ανάδειξη και Αντιγραφή Ψηφιδωτών από (Εκκλησιαστικούς) Χώρους Υψηλής Πολιτιστικής Αξίας</i> ⇒ Ευρωπαϊκό: https://www.hieurecapro.eu/ (2025 – 2026) - <i>Σχεδιασμός και εκτέλεση εκπαιδευτικών σεμιναρίων για ψηφιακή και πράσινη μετάβαση, ανάπτυξη ΑΙ εργαλείου ερωτοαποκρίσεων</i>
Επιτυχής συγγραφή και διαχείριση ερευνητικών προγραμμάτων	1. Υποτροφία Ιδρύματος Ωνάση (2018 – 2021) – PhD Thesis (Budget: 34.000,00€) 2. Συγχρηματοδοτούμενο ευρωπαϊκό – ελληνικό: smartHEALTH (2021-2024) (Budget: 147.660,00), 3. EIT-HEALTH (01/2023 – 12/2023): ‘Personalised Real-time Interoperable Sepsis Monitoring (PRISM)’ (Budget: 25.000,00€) 4. Δράση Φυτωρίου Ιδεών, Πολυτεχνείο Κρήτης (06/2023 – 11/2023): ‘HeartGuard: Non-invasive and multi-sensor system for monitoring and real-time detection of physiological and pathological human biosignal activity’ (Budget: 5.000,00€) – Επιστημονικός υπεύθυνος 5. HORIZON – MaasiveTwin (2024 – 2028) (Budget: 643.720,00) 6. ΓΤΕΚ – Εμβληματική δράση (2023 – 2025): SAFE-AORTA (Budget: 267.605,00€) - https://safe-aorta.gr/ 7. ΓΤΕΚ – Εμβληματική δράση (2023 – 2025): Greece4.0 (Budget: 259.986.73€) - https://greece40.gr/ 8. Δράση Φυτωρίου Ιδεών, Πολυτεχνείο Κρήτης (04/2024 – 11/2024): ‘PULSEMIND – Portable Ultra-sensitive Life Sign Evaluation for

- Monitoring and INsightful Detection’ (Budget: 3.000,00€) – Επιστημονικός υπεύθυνος
9. EIT-HEI / EITRawMaterials 2024 – AquaSphere: Empowering Higher Education Institutions (HEIs) Capabilities for Water and Maritime Innovation and Entrepreneurship (Budget: 1.340.000, TUC: 291.500,00) – Συντονιστής έργου και επιστημονικός υπεύθυνος.

Διδασκαλία μαθημάτων		
Αριθμός	Ημερομηνία	Μάθημα
1	2013 – 2015	“Digital signal and image processing biomedical applications” – ECE/TUC, Greece (επικουρική διδασκαλία)
2	2016 – 2020	“Advanced applications in biomedical engineering” – IBB/WWU, Germany (επικουρική διδασκαλία)
3	01 – 02 /2021	“Advanced MATLAB courses for computational neuroscientific applications/research” – AAISCS, Cyprus (κύριος διδάσκων)
4	10/2022 – 02/2023	“Algorithms and Complexity”, Department of Electronic Engineers, Hellenic Mediterranean University (κύριος διδάσκων)
5	09/2022 – 02/2023	“Computational logic and logic programming”, Department of Electronic Engineers, Hellenic Mediterranean University (κύριος διδάσκων)
6	02/2023 – 07/2023	“Graph Theory”, Department of Electronic Engineers, Hellenic Mediterranean University (κύριος διδάσκων)
7	09/2023 – 11/2023	“Online Course on Machine/Deep Learning Basics and Applications with Real-Time Hands-on,” Silesian University of Technology (κύριος διδάσκων)
8	02/2024 – 09/2024	“Digital Image and Signal Processing”, Department of Electronic Engineers, Hellenic Mediterranean University (κύριος διδάσκων)
9	02/2024 – 09/2024	“Renewable Energy Resources”, Department of Electronic Engineers, Hellenic Mediterranean University (κύριος διδάσκων)
10	09/2024 – 02/2025	“Biomedical Technology I”, Technical University of Crete (κύριος διδάσκων)
11	09/2025 – 02/2025	“Data Structures”, Department of Electronic Engineers, Hellenic Mediterranean University

Υποτροφίες Αριστείας	
Ακαδημαϊκό έτος	Βράβευση από
2008 – 2009	Ίδρυμα κρατικών υποτροφιών
2008 – 2009	Πολυτεχνείο Κρήτης
2009 – 2010	Πολυτεχνείο Κρήτης
2010 – 2011	Ίδρυμα κρατικών υποτροφιών
2018 – 2020	Κοινοφελές ίδρυμα ‘Αλέξανδρος Σ. Ωνάσης’

Βραβεία	
Ημερομηνία	Βράβευση από
1 21/04/2018	Τρίτο Καλύτερο poster, Συνέδριο "50 years of MEG" από ISACM/EMEGS, Πόρος, Ελλάδα
2 15/08/2016	MARIE SKŁODOWSKA-CURIE Fellowship – μέρος του ευρωπαϊκού έργου “ADVANCING BRAIN RESEARCH IN CHILDREN’S DEVELOPMENTAL NEUROCOGNITIVE DISORDERS

		(ChildBrain).” https://cordis.europa.eu/project/id/641652/results
3	23/09/2019	Βραβείο Νέου Ερευνητή, 13ο Διεθνές Συνέδριο στην Ιατρική Μηχανική, Ντόρτμουντ, Γερμανία
4	11/09/2021	Βραβείο 2ης Καλύτερης Εργασίας, 9ο Πανελλήνιο Συνέδριο Ελληνικής Εταιρείας Βιοϊατρικής Τεχνολογίας (ΕΛΕΒΙΤ), Θεσσαλονίκη, Ελλάδα. https://www.elevit.org.gr/images/elevit_2021/proceedings_final_03.pdf (σελ. 125)
5	27/10/2021	Βραβείο Καλύτερης Εργασίας, 21ο IEEE Διεθνές Συνέδριο στην Βιοπληροφορική και Βιομηχανική, Κρακούεβιτς, Σερβία. http://www.bibe2021.kg.ac.rs/
6	27/08/2022	Βραβείο 2ης θέσης, 22ο Διεθνές Συνέδριο Βιομαγνητισμού, Διαγωνισμός Ανάλυσης Δεδομένων Επιληψίας. https://biomag2020.org/awards/data-analysis-competitions/
7	15/09/2024	Βραβείο 1ης θέσης, 12ο Διεθνές Συνέδριο στον Συναισθηματικούς Υπολογισμούς και Ευφυής Αλληλεπίδραση https://www.tuc.gr/en/university/in-the-spotlight/item/1st-place-award-in-the-international-emotion-recognition-challenge-from-ecg-signals

		Τρέχον ιδιότητα μέλους
11/2020 – παρόν		Μέλος στην διεθνή κοινότητα Ηλεκτρολόγων Μηχανικών και Μηχανικών Υπολογιστών (IEEE – αριθμός μέλους: 95603306)
12/2020 – παρόν		Μέλος στην διεθνή κοινότητα Ηλεκτροεγκεφαλογραφήματος και Κλινικής Νευροφυσιολογίας (http://www.ecnsweb.org/)
01/2021 – παρόν		Μέντορας στην ελληνική διεθνή κοινότητα IEEE EMB Βιοϊατρικών Μηχανικών (https://r8.ieee.org/greece-embs/members/)
01/2020 – παρόν		Μέλος Ελληνικής Εταιρείας Βιοϊατρικής Τεχνολογίας (ΕΛΕΒΙΤ)
05/2025 – παρόν		Γραμματέας Κλινικής Ιατρικής, ΕΛΕΒΙΤ

		Διοργάνωση διεθνή συνέδριων
Αριθμός	Ημερομηνία	Πληροφορίες Συνεδρίου
1	07/2024	IISA 2024 - The Fifteenth International Conference on Information, Intelligence, Systems and Applications, https://easyconferences.eu/iisa2024/
2	10/2024	IST2024 – IEEE International Conference on Imaging Systems and Techniques, https://ist2024.ieee-ims.org/about/conference-organizers
3	05/2025	IEEE MeMeA – IEEE Medical Measurements and Applications https://memea2025.ieee-ims.org/about/organizing-committee
4	10/2025	IST2025 – IEEE International Conference on Imaging Systems and Techniques https://ist2025.ieee-ims.org/about/conference-organizers
5	11/2025	BIBE2025 – IEEE International Conference on International Conference on Bioinformatics & Bioengineering, https://easyconferences.eu/bibe2025/committees/

		Συντάκτης ή Προσκεκλημένος Συντάκτης σε Επιστημονικό Περιοδικό
Αριθμός	Ημερομηνία	Επιστημονικό Περιοδικό
1	12/2021 – 12/2023	MDPI – International Journal of Environmental Research and Public Health (Impact factor: 4.614), Special Issue “Special Issue “Neurodisorders and Public Health.” https://www.mdpi.com/journal/ijerph/special_issues/neuro_disease_health
2	01/2022	MDPI – Sensors (Impact factor: 3.847). Special Issue “Advances on UAV-Based Sensing and Imaging.” https://www.mdpi.com/journal/sensors/special_issues/UAV_SI
3	08/2023	Elsevier – “Brain Organoid and Systems Neuroscience Journal”, https://www.sciencedirect.com/journal/brain-organoid-and-systems-neuroscience-journal/about/editorial-board

4	08/2023	MDPI – Multiple Sensor Signal and Image Processing for Clinical Application. Special Issue “Multiple Sensor Signal and Image Processing for Clinical Application,” https://www.mdpi.com/journal/sensors/special_issues/TNH955Q9N2
5	04/2024	Springer Nature: Scientific Reports (Impact factor: 5.133), https://www.nature.com/srep/about/editors
6	09/2025	Springer Nature: Scientific Reports (Impact factor: 5.133), Special Issue https://www.nature.com/collections/jcbhafdgi/guest-editors

Οργάνωση συμποσίων σε διεθνή/εθνικά συνέδρια

Αριθμός	Ημερομηνία	Διοργανωτές/ Πληροφορίες Συμποσίου
1	08/2017	MC Piastra, M Antonakakis , S Homölle. FieldTrip workshop, Pre-conference training courses at the BACI2017 conference in Bern, Switzerland, http://www.baci-conference.com
2	07/2019	A Thielscher, M Siniatchkin, R Salvador, O Puonti, Miranda, S Makarov, M Antonakakis . Transcranial Direct Current Stimulation in Adolescents and Adults: Towards a Precision Medicine Approach Based on Numerical Models Invited Session. 41 th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Berlin, Germany. https://embs.papercept.net/conferences/conferences/EMBC19/program/EMBC19_ContentListWeb_3.html
3	10/2019	G Giannakakis and M Antonakakis . Spatiotemporal computational neuroimaging methods (EEG, MEG, MRI, etc.) in epilepsy. 19 th International Conference of the IEEE in Bioinformatics and Bioengineering, Athens, Greece. https://bibe2019.ics.forth.gr/participation/special-session-spatiotemporal-computational-neuroimaging-methods-in-epilepsy/
4	10/2021	M Antonakakis , SI Dimitriadis. Sensor/Source space functional connectivity of brain disorders on the basis of realistic head modeling. BACI2021 conference, Virtual, http://www.baci-conference.com
5	09/2022	M Antonakakis and M Zervakis. Biomedical image and signal methods and applications for analysing human abnormal body responses. IEEE BHI-BSN 2022, https://bhi-bsn-2022.org/?page_id=3212
6	09/2023	M Antonakakis . Modeling and analysis of electrophysiological recordings for the characterization of pathological brain activity. 6 th Basic and Clinical Multimodal Neuroimaging (BaCI) International Conference, Istanbul, Turkey. https://baci-conference2023.com/
7	10/2023	M Antonaakis , Digital health services to facilitate non-invasive diagnostics of brain diseases. 10 th Panhellenic Conference on Biomedical Technology, Thessaloniki, Greece, October 2023. http://www.elevit.org.gr/
8	10/2023	P Natsiavas, A Dimitriadis, M Antonkakis , Interlinking companies and public organizations with research community in the context of smart health – The case of smartHEALTH EDIHs. 10 th Panhellenic Conference on Biomedical Technology, Thessaloniki, Greece, October 2023. http://www.elevit.org.gr/
9	01/2024	M Antonakakis , K Politof , Accurate localization of brain activity through finite elements and deep learning techniques. smartHEALTH – Annual Forum, NCSR, Athens, Greece, January 2024 https://smarthealth-edih.eu/2024/03/05/ethsio-forum-europaikou-komvou/
10	04/2024	M Antonakakis , Electromagnetic activity analysis for non-invasive diagnosis of brain disorders. 18 th Neurology Symposium, Heraklion, Greece, April 2024. https://acne.gr/
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Google scholar:

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Αριθμός

1

Ημερομηνία

11/2013

Συγγραφέας/Όνομα Συνεδρίου/Πληροφορίες Συνεδρίου

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52	09/2024	A Karasmanoglou, M Zervakis, M Antonakakis . Unsupervised Seizure Detection in EEG Data Using Deep Autoencoder-Derived Features and Symbolic Dynamics. 15 th European Epilepsy Congress, September, 2024. https://onlinelibrary.wiley.com/doi/full/10.1111/epi.18151
53	11/2024	A Tsipourakis, M Antonakakis , F Kaiser, S Rampp, S Kovac, C Kellinghaus, G Möddel, CH Wolter, M Zervakis. The Effect of Multi-Channel tDCS on the Directed Connectivity Patterns of a Case with Focal Epilepsy using A Multi-Feature Machine Learning Evaluation. 24 th International Conference of the IEEE in Bioinformatics and Bioengineering, Kragujevac, Serbia.
54	11/2024	E Katsoupiis, A Karasmanoglou, M Zervakis, M Antonakakis . PulSense: An AI-driven Cardiovascular Monitoring and Arrhythmia

		Detection System. 24 th International Conference of the IEEE in Bioinformatics and Bioengineering, Kragujevac, Serbia.
55	05/2025	E Bei, K Politof, K Moirogiorgou, M Antonakakis and Michalis Zervakis. In Morphological Analysis of Intraluminal Thrombus of Abdominal Aortic Aneurysm. 11 th Panhellenic Conference on Biomedical Technology, Athens, Greece, May 2025.
56	05/2025	M Abadi, T Houari, B Benarabi, N Zerhouni, M Zervakis and M Antonakakis . Vision Transformer for Thyroid Ultrasound Image Classification. In 11 th Panhellenic Conference on Biomedical Technology, Athens, Greece, May 2025.
57	05/2025	S Naka, M Antonakakis and Michalis Zervakis. ViTSeg – A Whole Heart Image Segmentation Model using Vision Transformers. In 11 th Panhellenic Conference on Biomedical Technology, Athens, Greece, May 2025.
58	05/2025	S Kavvouras, M Antonakakis , K Politof, SI Dimitriadis, M Zervakis, A Papanikolaou, G Zouridakis. Detecting mild Traumatic Brain Injuries on Magnetoencephalography using Graph Convolutional Networks and Phase Synchronization. 20th edition of the IEEE International Symposium on Medical Measurements and Applications, Chania, Greece.
59	05/2025	U Chaurasia, HK Pathak, KK Singh, M Antonakakis , M Zervakis. EEGCA-Net: Channel-Attention Framework with Subject-Wise Fine-Tuning for Motor Imagery Classification. 20th edition of the IEEE International Symposium on Medical Measurements and Applications, Chania, Greece.
60	11/2025	C Chatzianagnostou, A Tsipourakis, K Biniakou, JP Crespo, CG Pena, KA Oungrinis, M Zervakis, M Antonakakis . Emotional State Alterations in Immersive Projection Environments: An EEG Study. 25 th International Conference of the IEEE in Bioinformatics and Bioengineering, Athens, Greece.
61	11/2025	KT Himanshu Kumar Pathak, I Pathak, KK Singh, M Antonakakis , Michalis Zervakis. LungCLR: A Two-Stage Framework with Contrastive Pretraining for Low-Data Lung Cancer Histopathology. 25 th International Conference of the IEEE in Bioinformatics and Bioengineering, Athens, Greece.

Προσκεκλημένες ομιλίες / Πρόλογοι

Google scholar: <https://scholar.google.ca/citations?user=27KcZXMAAAAJ&hl=en>

ResearchGate: <https://www.researchgate.net/profile/Marios-Antonakakis>

Αριθμός	Ημερομηνία	Συγγραφής/ Πληροφορίες Προλόγου
1	02/2017	M Antonakakis . Multimodal analysis of combined EEG/MEG using priors from MRI. Centre for Interdisciplinary Brain Research (CIBR), Jyväskylä, Finland.
2	06/2018	M Antonakakis . “Brain Source Reconstruction of Epileptic Activity Using Combined EEG and MEG on a Calibrated Realistic Head Model.” Scientific Symposium: “From the desk for epilepsy surgery: New source localization methods in clinical practice,” Chairs: CH Wolters and S Rampp. Deutschen Gesellschaft für Epileptologie, Fürth, Germany.
3	08/2018	M Antonakakis . “Connectivity analysis in epilepsy networks using combined EEG/MEG source analysis and zoomed MRI.” Scientific Workshop: “Connectivity analysis in epilepsy.” Chair: C Vollmar. Summer School on Imaging in Epilepsy, Epilepsy Surgery and Epilepsy Research, Bochum, Germany.
4	08/2018	M Antonakakis . “Combined EEG/MEG source analysis for presurgical epilepsy diagnosis using calibrated realistic volume conductor model.” Chairs: CH Wolters and S Rampp. Scientific Symposium: “Advanced MEG/EEG source analysis in epilepsy.” 21 st International Conference on Biomagnetism (Biomag2018), Philadelphia, Pennsylvania, USA

5	08/2019	M Antonakakis. “Combined EEG / MEG to individualize head modeling and its application to presurgical epilepsy diagnosis.” Chairs: S Rampp and CH Wolters. Scientific Symposium on EEG and MEG source analysis methods. Summer School on Imaging in Epilepsy, Epilepsy Surgery and Epilepsy Research, Bochum, Germany.
6	09/2019	M Antonakakis. “Individual targeting effects and optimization of multi-channel transcranial electric stimulation of the human primary somatosensory cortex.” Scientific Workshop: “New methods and experimental results for optimized multi-channel TES.” Chairs: CH Wolters, and T Knösche. International Conference on Complex Medical Engineering, Dortmund, Germany. 1st Young Investigator Award.
7	09/2020	M Antonakakis. “Individualized targeting and multi-channel transcranial stimulation in epileptology” Session: “E/MSI in Epileptology.” Chairs: Stefan Rampp and Carsten Wolters. Summer School on Imaging in Epilepsy, Bochum, Germany.
8	09/2021	M Antonakakis. “Individualized targeting and multi-channel transcranial stimulation in epileptology” Session: “ESI in Epileptology.” Chairs: Stefan Rampp and Carsten Wolters. Summer School on Imaging in Epilepsy, Bochum, Germany.
9	08/2022	M Antonakakis. “Combined EEG/MEG targeting and optimized transcranial electric stimulation in an inoperable epilepsy patient.” Session: “Contribution of MEG, EEG and TES to the presurgical diagnosis and treatment of epilepsy.” Chairs: Stefan Rampp and Carsten Wolters. 22 nd International Conference on Biomagnetism (Biomag2022), Birmingham, UK.
10	03/2022	M Antonakakis. “Machine Vision for Biomedical Imaging and Diagnostics Applications” Keynote talk on the 2nd International Conference on Machine Vision & Augmented Intelligence, March 4-6, 2022. (https://www.mvai.in/speakerDetails.php)
11	08/2022	M Antonakakis. “Biomedical image and signal processing for normal abnormal brain activity reconstruction and discrimination”. Keynote talk – Workshop Artificial Intelligence for Addressing Problems in Precision Oncology.
12	11/2022	M Antonakakis. “Research and Innovation at TUC” 15 th FoundIt-Bizrupt, Chania, Greece, https://www.eurecapro.eu/workshop-for-entrepreneurship-foundit/
13	07/2023	M Antonakakis. Spatiotemporal Analysis for Industrial Applications using image/signal processing and machine learning, Best Course 2023, https://best.tuc.gr/sc23/schedule/

Κριτής σε διεθνή επιστημονικά περιοδικά

Publons: <https://publons.com/wos-op/researcher/3905170/marios-antonakakis/>

Αριθμός Όνομα περιοδικού

1	Biomedical Signal Processing & Control
2	Brain Connectivity
3	MDPI, Brain Sciences
4	Journal of Neuronal Engineering
5	Biological Psychology
6	Journal of Biomedical and Health Informatics
7	Society of IEEE Engineering in Medicine and Biology
8	Society of IEEE Bioinformatics and Biomedical Engineering
9	Frontiers in Neuroscience
10	Frontiers in Brain Imaging Methods
11	PLOS ONE
12	Computer Methods and Programs in Biomedicine
13	Quantitative Imaging in Medicine and Surgery (QIMS)
14	Internet of Things, Elsevier
15	MDPI, International Journal of Environmental Research and Public Health
16	European Journal of Neuroscience

17 IEEE/ACM Transactions on Computational Biology and Bioinformatics
 18 MDPI Brain Sciences
 19 Nature Scientific Reports
 20 Journal of Neural Engineering
 21 NeuroImage
 22 NeuroImage Clinical
 23 Human Brain Mapping
 24 Cerebral Cortex
 25 IEEE Transaction AI / Imaging / Neural Systems & Rehabilitation Engineering

Thesis supervision (integrated M.Sc.)/master thesis

TUC-Library: <https://dias.library.tuc.gr/>

School of Electrical and Computer Engineering – Technical University of Crete

No	Period	Student name / Thesis title
1	2014 – 2015	Vasilios Pezoulas: ‘Dynamin Connectivity Analysis of MEG.’
2	2014 – 2016	Marietta Patsioura: ‘Analysis of Evoked Fields from Visual and Auditory Stimuli.’
3	2015 – 2017	Elena Petrou: ‘Dominant Networks of Phase Synchronization.’
4	2016 – 2021	Nicolas Zoidis: ‘Resting State Analysis MEG via Complexity.’
5	2017 – 2018	Vasilios Dimakopoulos: ‘Characterization of epileptic activity based on integrated functional network on a realistic head model.’
6	2017 – 2018	Konstantinos Politof: ‘Functional Connectivity in the Wrist Somatosensory Network: An EEG/MEG Study.’
7	2019 – 2021	Glykeria Sdoukoupoulou: Comparison of low and high frequency oscillations of combined EEG/MEG source analysis: A drug-resistant epilepsy case study
8	2020 – 2022	Christos Trimas: ‘Comparison of difference machine and deep learning schemes for the detection of objects from UAV-based images.’
9	2020 – 2022	Veniamin Malefioudakis: ‘Terrain reconstruction using Photogrammetry.’
10	2020 – 2021	Glykeria Sdoukoupoulou (Master of Science): Automatic Spike detection using Combined EEG/MEG source analysis with machine learning and deep learning approaches
11	2020 – 2022	Stavroula Tsakaneli (Master of Science): Graph theory metrics on the combination of genomics and electrophysiology for the accurate detection of multiple sclerosis
12	2021 – 2022	Thanos Delatolas: Combined Electromagnetic Source Imaging using Deep Learning and Finite Element Analysis
13	2022 – 2023	Manos Zahariadis: Wildforest fire detection using deep learning and fusion techniques on aerial image datasets
14	2023 – 2024	Konstantinos Dimopoulos: Photovoltaic panel inspection using unmanned aerial vehicles
15	2022 – 2024	Afroditi Kolomvaki: EEG source localization on different realistic brain anatomies using Deep Learning Techniques
16	2023 – 2024	Alexandra Tsipouraki: Analysis of electroencephalography in epilepsy after transcranial brain stimulation using connectivity models and machine learning methods
17	2023 – 2024	Maria Douridou: Analysis of magnetoencephalographic signals from children with reading difficulties using realistic head modeling and machine learning
18	2023 – 2024	Evangelos Katsoupis: Development of a cardiovascular disease monitoring system.

19	2023 - 2024	Sotiris Kavvouras: Analysis of MEG signals from patients with mTBI using multilayer functional connectivity, ML and Graph NNs
20	2021 – 2024	Apostolis Karasanoglou (Master of Science): Landcover segmentation from high-resolution and hyperspectral images
21	2019 – 2025	Konstantinos Politof (Master of Science): ‘Functional connectivity of somatosensory network using realistic head modeling: An EEG/MEG study.’
23	2022 – 2024	Vasilis Giovanoglou: Object detection, localization and feature characterization of image data from UAV.
24	2022 – 2024	Stelina Naka: Cardiovascular segmentations tools using Vision Transformers
25	2023 – 2024	Klea Biniakou: Conduction and analysis of EEG brain responses from visual stimulus
26	2023 – 2024	Maria Koutalaki: Multi-frequency Network attacks on MEG recordings from patients with mTBI
27	2023 – 2025	Christina Chatzianaglostou: Conduction and analysis of EEG/ECG brain responses from audiovisual stimulus
28	2024 – 2025	Charilaos Kapelonis: Mosaic segmentation using SAM2
29	2022 – present	Maria Vlachakou: Landcover classification on very-high resolution images
30	2023 – present	Vasilis Gkentsoudis: Estimation of multi-level and multi-frequency functional connectivity networks of MEG recordings from patients with mTBI
31	2023 – present	Maria Kontogianni: Analysis of EEG brain responses from visual stimulus using deep learning
32	2023 – present	Konstantinos Pselis: Multibody deep learning segmentation
33	2025 – present	Stelina Naka: Time series forecasting in raw earth material monitoring
34	2024 – present	Georgia Bantouva: Graph Neural Networks with Effective Connectivity on Epilepsy detection
35	2024 – present	Kleinta Giaoupi: Development of an EEG/ECG app for recording and anomaly detection
36	2025 – present	Ioannis Fasarakis: Heart rate detection using deep learning and imaging data
37	2025 – present	Fotis Markou: Mosaic color extraction and segmentation using SAM2
38	2024 – present	Meriem Abadi (PhD Thesis: Thyroid detection and characterization using deep learning and foundation modeling
39	2025 – present	Michalis Papalios: Rich club estimation on time-varying MEG graphs for reading difficulties detection
40	2025 – present	Eleni Stavropoulou: mTBI detection using KANetworks on MEG graphs
41	2024 – present	Maria Florou: Head tissues segmentation using deep learning
42	2025 – present	Ioannis Tzevelekis: Conduction and analysis of EEG data for Nostalgia detection

43	2024 – present	George Doukas: Epilepsy detection using vision transformers
44	2024 – present	Konstantinos Athanasoulis: Heart Aorta segmentation using MedSAM2
45	2024 – present	Eva Pantazi: Heart rate detection using pattern recognition techniques
46	2024 – present	Maria Strataki: EEG / ECG data analysis for emotion characterization
47	2024 – present	Dimitra Serefidou: Deep learning foundation modeling for brain tumor segmentation
48	2025 – present	Panagiotis Raptis: CTA (Computed Tomography Angiography) data from the same patient taken at different time points
49	2024 – present	Sofoklis Fileratos: Timeseries forecasting from multiple sources using deep learning procedures
50	2025 – present	Ioannis Koukoulomatis: Video EEG analysis with machine learning for the characterization of emotional states

	Γλώσσες
	Ελληνικά (Μητρική)
11/2015	Αγγλικά (C2 επίπεδο)

	Τεχνικές δεξιότητες
Γλώσσες Προγραμματισμού	C, Java, C++, R, Python, Javascript, jQuery, PHP, MySQL, HTML
Άλλα εργαλεία	MATLAB, SPSS, MS Office, Dia, Scirun, ParaView, Docker
Λειτουργικά Συστήματα	MS Windows, Linux (distributions: Mint, Ubuntu), MacOS