

Curriculum Vitae

Giorgos Giannakakis

Personal Information

Name Giorgos Giannakakis
Date of Birth 15/12/1979 (Athens, Greece)
Address N. Plastira 100, Vassilika Vouton
700 13 Heraklion, Crete, Greece
Phone ☎ (+30) 2810 391310, ☎ (+30) 697 6928693
email ggian@ics.forth.gr
website <http://users.ics.forth.gr/~ggian>

Education

- 2005-2009 **Ph.D in Biomedical Engineering (Biomedical Electronics and Informatics)**
School of Medicine, University of Patras - School of Electrical and Computer Engineering,
National Technical University of Athens
Degree: Excellent
- 2003-2005 **M.Sc in Biomedical Engineering (Biomedical Electronics and Informatics)**
School of Medicine, University of Patras - School of Electrical and Computer Engineering,
National Technical University of Athens
Degree: 8.06/10
- 1998-2003 **Dipl.-Ing. in Electrical and Computer Engineering**
School of Electrical and Computer Engineering, National Technical University of Athens
Degree: 8.12/10

Research experience

- 11/2012-today **Postdoctoral Research Associate**, Foundation for Research and Technology Hellas (FORTH),
Institute of Computer Science.
- Fondation Sante**: Neuronal Networks in Epilepsy (DETH 00120)
 - KRIPIS II**: Biomedical Informatics: Biosignal EEG analysis for the development of a clinical decision system. (OPS 5002464)
 - SeeFar**: Smart glasses for multifaceted visual loss mitigation and chronic disease prevention indicator for healthier, safer, and more productive workplace for ageing population. (H2020-SC1-DTH-2018-1, GA No 826429)
 - UNICORN**: A framework for multi-cloud software fostering cloud technologies uptake from digital SMEs and startups. (H2020-ICT-2016, GA No 731846)
 - SEMEOTICONS**: SEMEiotic Oriented Technology for Individual's Cardiometabolic risk self-assessment and Self-monitoring (FP7-ICT-2013, GA No 611516)
 - Psychiatric Hospital Attica**: Design and development of information systems and support applications for technical support at PHA (Contract No. 2514/2015)
 - General Hospital Athens Alexandra**: Design and development of information systems and support applications for technical support at GHA Alexandra (Contract No. 2548/2014)
 - ICS/FORTH Program for MRI Software**: Requirements analysis and evaluation of magnetic resonance imaging (MRI) system for epileptic patients
 - General Hospital Eleusina**: Design and development of information systems and support applications for technical support at GH Eleusina (Contract No. 1625/2016)
 - General Hospital - KY Kithiron**: Design and development of information systems and support applications for technical support at GH-KY Kithiron (Contract No. 46/2014)
 - General Hospital Rhodes, Kos, Kalumnos**: Design and development of information systems and

support applications for technical support at GH Rhodes, Kos, Kalumnos (Contract No. 101/2014)

University General Hospital Patras: Design and development of information systems and support applications for technical support at UGH Patras (Contract No. 2218/2013)

predictES: An Integrated wearable platform predicting Epileptic Seizures and novel neurofeedback approaches in support of personalized patient management

EURECA: Enabling information re-Use by linking clinical Research and Care (FP7-ICT-2011, GA No 288048)

CHIC: Computational Horizons in Cancer, Developing Meta- and Hyper-Multiscale Models and Repositories for In Silico Oncology (FP7-ICT-2011, No 600841)

INTERGRATE: Driving Excellence in Integrative Cancer Research through Innovative Biomedical Infrastructures (FP7-ICT-2009, No 270253)

P-Medicine: From data sharing and integration via VPH models to personalized medicine (FP7-ICT-2009, No 270089)

- 04/2017-04/2019 **Scientific Advisor/Principal investigator**, Foundation for Research and Technology Hellas (FORTH), Institute of Computer Science.
Postdoctoral scholarship (Greek State Scholarships Foundation): Investigation of stress and psychological trauma through facial videos and biosignals.
- 07/2014-12/2014 **Postdoctoral Research Associate**, Technological Educational Institute of Crete.
MyHealthAvatar: A Demonstration of 4D Digital Avatar Infrastructure for Access of Complete Patient Information (FP7-ICT-2011, No 600929).
- 01/2006-12/2008 **Principal Investigator**, National Technical University of Athens (NTUA).
PENED 2003, Development of advanced computational algorithms and tools for the support of functional intervention in Parkinson disease and resistant epilepsy.
- 01/2005-04/2009 **Scientific Associate**, Institute of Communications and Computer Systems (ICCS).
02/2009-04/2009 Health effects of electromagnetic radiation and wireless communications.
04/2008-06/2008 INTERMED, An INTEgrated broadband telecommunication pilot teleservices-platform for improving health care provision in the Region of MEDiterranean.
04/2008-04/2008 iWebCare, Integrated Web services platform for the facilitation of fraud detection in health care e-government services.
07/2006-07/2006
01/2005-03/2005 Development of 4th generation Wireless Systems Resources' Management.
- 03/2006-06/2006 **Scientific Associate**, National Technical University of Athens (NTUA).
Provision of technical services of the work of transactions automation.

Teaching experience

Teaching work in higher/university education

Teaching work in **6** different universities **4** postgraduate and **15** undergraduate lessons. The total non overlapping teaching experience is **7** years (14 semesters).

- 03/2019-today **Visiting Associate Teaching Staff**, Bioinformatics and Neuroinformatics, Hellenic Open University, Greece.
Recording and Processing of Neural Biosignals (spring 2019, fall 2019)
Biomedical Engineering and Medical Imaging Systems (fall 2020)
- 10/2020-today **Academic Teaching Grant**, School of Electrical and Computer Engineering, Hellenic Mediterranean University.
Pattern Recognition (fall 2020)
- 10/2020-today **Invited Lecturer**, Stress science and promotion of health, Medical School, University of Athens, Greece.
Basic Principles of Stress Science (fall 2020)
- 03/2018-07/2018 **Visiting Lecturer**, Computer Science Department, University of Crete.
Pattern Recognition

- 10/2012-02/2018 **Adjunct Laboratory Associate/Lecturer**, Department of Informatics Engineering TE, Technological Educational Institute of Crete.
 Course:
 Machine Vision (fall 2014, fall 2016)
 Laboratories:
 Machine Vision (fall 2014, fall 2017)
 Telemedicine (spring 2013)
 Multimedia Applications in Healthcare (fall 2013)
 Digital Signal Processing (fall 2012, spring 2016)
- 10/2014-02/2015 **Adjunct Laboratory Associate/Lecturer**, Department of Nursing, Technological Educational Institute of Crete.
 Biosignals Processing
 Informatics I
- 10/2012-02/2013 **Adjunct Scientific Associate/Lecturer**, Department of Music Technology and Acoustics, Technological Educational Institute of Crete.
 Course: Multimedia Applications
 Laboratory: Multimedia Applications
- 03/2012-07/2012 **Adjunct Lecturer**, Department of Production Engineering and Management, Division of Management and Administration, Technical University of Crete.
 Algorithms and Data Structures (Lab assignments in C)
- 10/2010-07/2012 **Adjunct Scientific Associate/Lecturer**, Department of Electronics, Technological Educational Institute of Crete.
 Course:
 Digital Control Systems (spring 2012)
 Laboratories:
 Signals and Systems (spring 2012)
 Digital Control Systems (spring 2011, spring 2012)
 Digital Signal Processing (fall 2010, spring 2011)
 Robotics (fall 2010)
 Electrical and Electronic Measurements (fall 2010 - spring 2011)
- 03/2005-07/2005, 2006, 2007, 2008, 2009 **Teaching Assistant**, School of Electrical and Computer Engineering, NTUA.
 Supervision of semester projects
 Postgraduate Course in Biomedical Engineering
 "Bioelectromagnetism"
- 09/2006-02/2007 **Teaching Assistant**, School of Electrical and Computer Engineering, NTUA.
 09/2007-02/2008 Supervision of lab assignments during undergraduate courses
 "Simulation of Physiological Systems"
 "Biomedical Engineering Laboratory"

Students' Advisor

Advisor of total twelve (12) theses: four (7) postgraduate these and five (5) undergraduate theses.

- 10/2020-today Advisor of postgraduate thesis, «*Automatic stress detection using physiological measures and advanced machine learning methods*», George-Marios Kalatzantonakis-Jullien, Hellenic Open University, 2020
- 10/2020-today Advisor of postgraduate thesis, «*Stress recognition using physiological data and statistical methods*», Angelos Plataniotis, Hellenic Open University, 2020
- 10/2020-today Co-Advisor of postgraduate thesis, «*Stress detection methods through hormonal and neurological biomarkers*», Kaffesaki Kalliopi, Hellenic Open University, 2020
- 04/2019-02/2020 Co-Advisor of undergraduate thesis, «*Compressed Sensing Methods for Analysis of Epileptic Seizures*», Tsekos Nikolaos, Technical University of Crete, 2019
- 09/2015-10/2016 Co-Advisor of M.Sc. thesis, «*Exploring eye activity as an indicator of the emotional state*», Tzedakis Charalampos, TEI Crete, 2016
- 06/2015-03/2016 Co-Advisor of undergraduate thesis, «*Cognitive processes information extraction via EEG*» (in Greek), Grigoriadis Dimitris, TEI Crete, 2016
- 03/2014-09/2015 Co-Advisor of undergraduate thesis, «*Driver Drowsiness Detection via Eye Characteristics Extracted from Videos*» (in Greek), Asargiotakis Kostas, TEI Crete, 2015

- 04/2013-10/2013 Co-Advisor of undergraduate thesis, «*Magnetoencephalographic Analysis using Projection on Independent Components (ICA)*» (in Greek), Antonakakis Marios, TUC, 2013
- 09/2009-07/2010 Co-Advisor of M.Sc. thesis, «*Non Linear Analysis of EEG Causal Interactions*» (in Greek), Korda Alexandra, NTUA, 2010.
- 09/2008-07/2009 Co-Advisor of M.Sc. thesis, «*Extraction of Quantitative Synchronization Measures of Cerebral Activity*» (in Greek), Lekkas Alexandros, NTUA, 2009.
- 09/2008-07/2009 Co-Advisor of M.Sc. thesis, «*EEG Study Based on Information Theory measures*» (in Greek), Xenikou Monika-Filitsa, NTUA, 2009.
- 02/2006-07/2006 Co-Advisor of undergraduate thesis, «*Brain Regions Connectivity Study using computational methods and EEG data*» (in Greek), Skoularikis Grigoris, NTUA, 2006.

Development of teaching materials

Development of teaching material for the laboratory courses:

- Digital Signal Processing, Department of Electronics, Technological Educational Institute of Crete, 2010
- Multimedia Applications in Healthcare, Department of Informatics Engineering, Technological Educational Institute of Crete, 2013
- Telemedicine, Department of Informatics Engineering, Technological Educational Institute of Crete, 2013
- Artificial Vision, Department of Informatics Engineering, Technological Educational Institute of Crete, 2014

Professional experience

- 09/2004-today **Web developer**, Self employed.
Design and implementation of websites
- o www.euzoea.com (technologies PHP, MySQL, Wordpress)
 - o www.apokinou.gr (technologies PHP, MySQL, Joomla)
 - o www.musicalinstruments.gr (technologies PHP, MySQL, Wordpress)
 - o www.mesarmi.gr (technologies PHP, MySQL, Wordpress)
 - o www.tangoneon.gr (technologies PHP, MySQL, Wordpress)
 - o www.chaniafestival.gr (technologies PHP, MySQL, Wordpress)
 - o www.hotels-kania.gr (technologies PHP, MySQL, AJAX, JQuery, Javascript, Google Maps, SEO)
 - o www.bibe2008.org (technologies PHP, MySQL)
 - o www.ontas.gr (technologies PHP, Google Maps)
 - o www.biosim.ntua.gr/smartdiab
 - o www.biosim.ntua.gr (technologies HTML/DHTML, SEO)
- 09/2010-10/2012 **Electrical Engineer**, Self employed.
Implementation of electromechanical works
- 02/2012-08/2012 Directorate of Technical Works of Chania Regional Unit.
Work: Building infrastructure improvement and EM fixtures of Kissamos Health Center
 - 04/2011-04/2012 Region of Crete, Directorate of Technical Works.
Work: Addition of A' floor in childcare station of Municipality of Nea Kydonia
 - 07/2009-08/2009 Engineer in place, *TYDK of Crete Region*.
Work: Lightning of Municipality Kantanou with traditional poles
- 04/2012-10/2012 **Programmer**, Medicines Du Monde (Chania Polyclinic), (voluntary work).
Design and implementation of clinic/pharmacy management web-based application (technologies Php, MySQL, Ajax, JQuery)
- 08/2009-05/2010 **Soldier**, Compulsory Military Service at Hellenic Army.
- 10/2008-03/2009 **Analyst/Programmer**, University Mental Health Research Institute, (voluntary work).
Design and implementation of electroencephalographic recording system (NI Labview technology)
- 02/2007-06/2009 **Analyst/Programmer**, Hellenic Center of Neurosurgical Research.
Design, implementation and support of a web-based data management and analysis system for epileptic patients - EPILDA (JSP, JBoss 4, MS SQL Server technologies)

- 02/2004-06/2009 **Ph.D Candidate**, Laboratory Assistance at Biomedical Simulations and Imaging (BIOSIM).
 - Measurements Supervisor: Measurements of electromagnetic radiation levels (RF) in regions being in the proximity of base stations of mobile communications system
 - Webmaster of the lab website (www.biosim.ntua.gr)
 - Writing and implementation of research projects
- 10/2006-12/2008 **Instructor**, "System" consultant company.
 Statistics seminars
- 09/2005-02/2008 **Instructor**, "KEK Parthenon" Computer Studies.
 Informatics seminars
- 07/2005-08/2005 **Instructor**, MEMO Computers.
 Informatics seminars
- 03/2004-06/2004 **Instructor**, "IEK Domi" Computer Studies.
 Programming Languages (Java, Javascript, C++) seminars
- 2000-2003 Work in Technical Office during summer months.

Grants

- 2018-today **H2020-SC1-DTH-2018-1 Grant**, SeeFar: Smart glasses for multifaceted visual loss mitigation and chronic disease prevention indicator for healthier, safer, and more productive workplace for ageing population. (H2020-SC1-DTH-2018- 1, GA No 826429)
 Total amount of Funding: 3.988.712€.
 (Member of the research team, principal applicant: D. Fotiadis)
- 10/2020-today **Academic Teaching Grant**, School of Electrical and Computer Engineering, Hellenic Mediterranean University, Greece
 Pattern Recognition (fall 2020).
 (Principal applicant)
- 03-07/2018 **Academic Teaching Grant**, Acquisition of academic teaching experience to young scientists PhD holders, University of Crete
 Pattern Recognition (spring 2018)
 Total amount of Funding: 4.200€.
 (Principal applicant)
- 2017-2019 **Postdoctoral scholarship**, (Greek State Scholarships Foundation): Investigation of stress and psychological trauma through facial videos and biosignals
 Total amount of Funding: 26.141€.
 (Principal applicant)
- 2014-2017 **FP7-ICT-2013 Grant**, (SEMEOTICONS: SEMEiotic Oriented Technology for Individual's Cardio-metabolic risk self-assessment and Self-monitoring (FP7-ICT-2013, GA No 611516)
 Total amount of Funding: 5.383.126€.
 (Member of the research team, principal applicant: F. Chiarugi)
- 2006-2008 **Greek Secretariat for Research and Technology Grant**, (PENED 2003, Development of advanced computational algorithms and tools for the support of functional intervention in Parkinson disease and resistant epilepsy
 Total amount of Funding: 32.130€.
 (Principal Investigator, principal applicant: F. Chiarugi)

Language Skills

Greek	Native Speaker	<i>Native Language</i>
English	Fluent	<i>Cambridge Certificate of Proficiency in English (Grade C)</i>
German	Conversant	<i>Zertifikat Gesamnote Gut (101.75/120)</i>

Technical skills

Programming Languages	MATLAB, C/C++, Java, Python Fortran, Pascal, Prolog	Web Development	HTML/HTML5, PHP, Javascript, JSP, AJAX, JQuery, XML, CSS/CSS3, WordPress, Google Maps API
Databases	MS SQL Server, MySQL	Statistics	SPSS

Operating Systems	Windows XP/Vista/7/8/10, Linux Ubuntu	Office automation	Microsoft Office, \LaTeX
Graphic Design	Adobe Photoshop, Premiere, Flash	Other	NI Labview

Publications

Refereed Journal publications (under review)

- [JU1] G. Giannakakis, Koujan M.R., A. Roussos, and K. Marias. Automatic stress analysis from facial videos based on deep facial action units recognition. *Pattern Analysis and Applications (major revision)*.
- [JU2] E. Christaki, P. Pervanidou, I. Papassotiriou, E. Valavani, D. Bastaki, D. Boschiero, G. Giannakakis, A. Mantzou, C Kanaka-Gantenbein, and Chrousos G.P. Both stress and inflammation biomarkers are associated with body composition measures in lean, overweight and obese children and adolescents. *Stress (major revision)*.
- [JU3] G. Giannakakis, K. Makantasis, K. Giannakaki, P. Vorgia, and M. Zervakis. Focal seizure detection using common spatial patterns and neural networks on EEG signals. *IEEE Transactions on Biomedical Engineering (under preparation)*.

Refereed Journal publications

- [J1] C. Koumarela, T. Kokkinaki, G. Giannakakis, K. Koutra, and E. Hatzidaki. Autonomic nervous system maturation and emotional coordination in interactions of preterm and full-term infants with their parents in the first postpartum year and, developmental outcomes at 18 months: Protocol for a multi-method study from an inter-disciplinary perspective. *JMIR Research Protocols*, 2021.
- [J2] V. Skaramagkas, G. Giannakakis, D. Manousos, I. Karatzanis, N. Tachos, E. Tripoliti, K. Marias, D.I. Fotiadis, and M. Tsiknakis. Review of eye tracking metrics involved in emotional and cognitive processes. *IEEE Reviews in Biomedical Engineering*, 2021. (IF: 6.180).
- [J3] A. Korda, G. Giannakakis, E. Ventouras, P. Asvestas, N. Smyrnis, K. Marias, and G. Matsopoulos. Recognition of blinks activity patterns during stress conditions using CNN and Markovian analysis. *MDPI Signals*, 2(1):55-71, Jan 2021.
- [J4] K. Giannakaki, G. Giannakakis, P. Vorgia, and M. Zervakis. Absence seizure detection classifying matching pursuit features of EEG signals. *EAI Endorsed Transactions on Bioengineering and Bioinformatics*, 20(e2), October 2020.
- [J5] G. Giannakakis, D. Grigoriadis, K. Giannakaki, O. Simantiraki, A. Roniotis, and M. Tsiknakis. Review on psychological stress detection using biosignals. *IEEE Transactions on Affective Computing*, 2019. (IF: 7.512).
- [J6] G. Giannakakis, M. Tsiknakis, and P. Vorgia. Focal epileptic seizures anticipation based on patterns of heart rate variability parameters. *Computer Methods and Programs in Biomedicine*, 178:123-133, 2019. (IF: 3.632).
- [J7] P. Henriquez, B.J. Matuszewski, Y. Andreu-Cabedo, L. Bastiani, S. Colantonio, ..., A. Bjorgan, G. Giannakakis, M. Padiaditis, F. Chiarugi, E. Christinaki, K. Marias, and M. Tsiknakis. Mirror mirror on the wall... an unobtrusive intelligent multisensory mirror for well-being status self-assessment and visualisation. *IEEE Transactions on Multimedia*, 19(7):1467-1481, July 2017. (IF: 5.452).
- [J8] G. Giannakakis, M. Padiaditis, D. Manousos, E. Kazantzaki, F. Chiarugi, P.G. Simos, K. Marias, and M. Tsiknakis. Stress and anxiety detection using facial cues from videos. *Biomedical Signal Processing and Control*, 31:89-101, 2017. (IF: 2.943) (**Top 20 most-cited articles in the BSPC journal**).
- [J9] G. Stavriniadis, K. Michelakis, V. Kontomitrou, G. Giannakakis, M. Sevrisarianos, G. Sevrisarianos, N. Chaniotakis, Y. Alifragis, and G. Konstantinidis. Su-8 microneedles based dry electrodes for electroencephalogram. *Microelectronic Engineering*, 159:114-120, 2016. (IF: 1.654).

- [J10] Y. Andreu, F. Chiarugi, S. Colantonio, G. Giannakakis, G. Giorgi, P. Henriquez, E. Kazantzaki, D. Manousos, K. Marias, MA. Matuszewski, BJ. Pascali, M. Padiaditis, G. Raccichini, and M. Tsiknakis. Wize mirror - a smart, multisensory cardio-metabolic risk monitoring system. *Computer Vision and Image Understanding*, 148:3-22, 2016. (IF: 2.645).
- [J11] C. Papageorgiou, A.D. Rabavilas, X. Stachteia, G.A. Giannakakis, M. Kyprianou, G.N. Papadimitriou, and C.N. Stefanis. The interference of introversion-extraversion and depressive symptomatology with reasoning performance: A behavioural study. *Journal of Psycholinguistic Research*, 41(2):129-139, 2012. (IF: 0.659).
- [J12] C. Papageorgiou, G.A. Giannakakis, K.S. Nikita, D. Anagnostopoulos, G.N. Papadimitriou, and A. Rabavilas. Abnormal auditory ERP N100 in children with dyslexia: comparison with their control siblings. *Behavioral and Brain Functions*, 5, 2009. (IF: 2.457).
- [J13] J. Stoitsis, G.A. Giannakakis, C. Papageorgiou, K.S. Nikita, A. Rabavilas, and D. Anagnostopoulos. Evidence of a posterior cingulate involvement Brodmann area 31 in dyslexia: a study based on source localization algorithm of event-related potentials. *Progress Neuropsychopharmacology Biological Psychiatry*, 32(3):733-738, April 2008. (IF: 4.315).
- [J14] C. Papageorgiou, D. Anagnostopoulos, G.A. Giannakakis, K. Sakelariou, N. Tsiapas, P. Paraskevopoulou, K. Nikita, A. Rabavilas, and C. Soldatos. Preattentive deficits in developmental disorders of scholastic skills. *Neuroreport*, 16(16):1829-32, November 2005. (IF: 1.266).

Book Chapters

- [B1] G. Giannakakis, V. Sakkalis, M. Padiaditis, and M. Tsiknakis. Methods for Seizure Detection and Prediction: An Overview. *Neuromethods*, Springer New York, 91:131-157, 2015.

Conference publications

- [C1] G. Papadakis, G. Giannakakis, A.H. Karantanas, K. Marias, M.T. Collins, and A.M. Boyce. ¹⁸F-NaF uptake by fibrous dysplasia lesions in the skull is significantly higher in patients with optic neuropathy. In *33rd Annual Congress of the European Association of Nuclear Medicine*, 2020.
- [C2] G. Giannakakis, A. Plataniotis, G.M. Kalatzantonakis-Jullien, E. Georgiou, E. Thanou, and D. Kalles. Arousal assessment during arithmetic mental task using EEG recordings. In *Society of Applied Neurosciences conference (SAN2020)*, Thessaloniki, Greece, 17-20 September 2020.
- [C3] P. Vorgia, K. Giannakaki, N. Tsekos, G. Giannakakis, and M. Zervakis. Automatic focal epileptic seizures detection using common spatial patterns (CSP) methodology. In *14th European Congress on Epileptology (ECE)*, Geneva, Switzerland, 5-9 July 2020.
- [C4] G. Giannakakis, M.R. Koujan, A. Roussos, and K. Marias. Automatic stress detection evaluating models of facial action units. In *13th IEEE Conference on Automatic Face and Gesture Recognition (FG2020)*, Buenos Aires, Argentina, 18-22 May 2020.
- [C5] M.R. Koujan, L. Alharbawee, G. Giannakakis, N. Pugeault, and A. Roussos. Real-time facial expression recognition "In The Wild" by disentangling 3D expression from identity. In *13th IEEE Conference on Automatic Face and Gesture Recognition (FG2020)*, Buenos Aires, Argentina, 18-22 May 2020.
- [C6] G. Giannakakis, N. Tsekos, K. Giannakaki, K. Michalopoulos, P. Vorgia, and M. Zervakis. Seizure detection using common spatial patterns and classification techniques. In *19th IEEE International Conference on Bioinformatics and Bioengineering (BIBE)*, Athens, Greece, 28-30 October 2019.
- [C7] K. Giannakaki, G. Giannakakis, P. Vorgia, M. Klados, and M. Zervakis. Automatic absence seizure detection evaluating matching pursuit features of EEG signals. In *19th IEEE International Conference on Bioinformatics and Bioengineering (BIBE)*, Athens, Greece, 28-30 October 2019.

- [C8] G. Giannakakis, N. Stefanakis, A. Ilias, and P. Simos. Evaluation of social and cognitive load stress detection using speech-derived features. In *8th International Conference on Computational Bioengineering (ICCB2019)*, Belgrade, Serbia, 4-6 September 2019.
- [C9] G. Giannakakis, E. Trivizakis, M. Tsiknakis, and K. Marias. A novel multi-kernel 1d convolutional neural network for stress recognition from ECG. In *8th International Conference on Affective Computing and Intelligent Interaction (ACII 2019)*, Cambridge, UK, 3-6 September 2019. (27% acceptance rate).
- [C10] G. Giannakakis, K. Marias, and M. Tsiknakis. A stress recognition system using HRV parameters and machine learning techniques. In *8th International Conference on Affective Computing and Intelligent Interaction (ACII 2019)*, Cambridge, UK, 3-6 September 2019. (27% acceptance rate).
- [C11] P. Vorgia, G. Giannakakis, S. Voutoufianakis, D. Champsas, E. Dimitriou, and M. Tsiknakis. Focal epileptic seizures anticipation based on heart rate variability features. In *Epilepsia*, 59 (Suppl. 3), p. 269, *13th European Congress on Epileptology (ECE)*, Vienna, 26-30 August 2018.
- [C12] D. Melhart, K. Sfikas, G. Giannakakis, G. Yannakakis, and A. Liapis. A study on affect model validity: Nominal vs ordinal labels. In *2018 IJCAI workshop on AI and Affective Computing*, Stockholm, Sweden, 16-19 July 2018.
- [C13] G. Giannakakis, D. Manousos, P. Simos, and M. Tsiknakis. Head movements in context of speech during stress induction. In *13th IEEE Conference on Automatic Face and Gesture Recognition (FG2018)*, Xi'an, China, 16-19 May 2018.
- [C14] G. Giannakakis, D. Manousos, and M. Tsiknakis. Evaluation of head pose features for stress detection and classification. In *IEEE Conference on Biomedical and Health Informatics (BHI)*, Las Vegas, USA, 4-7 March 2018.
- [C15] K. Giannakaki, G. Giannakakis, C. Farmaki, and V. Sakkalis. Emotional state recognition using advanced machine learning techniques on EEG data. In *30th IEEE International Symposium on Computer-Based Medical Systems*, Thessaloniki, 22-24 June 2017.
- [C16] O. Simantiraki, G. Giannakakis, A. Pampouchidou, and M. Tsiknakis. Stress detection from speech using spectral slope measurements. In *MINDCARE2016, 6th EAI International Symposium on Pervasive Computing Paradigms for Mental Health*, Barcelona, 28-29 November 2016.
- [C17] A. Pampouchidou, O. Simantiraki, A. Fazlollahi, M. Padiaditis, D. Manousos, A. Roniotis, G. Giannakakis, F. Meriaudeau, P. Simos, K. Marias, F. Yang, and M. Tsiknakis. Depression assessment by fusing high and low level features from audio, video, and text. In *6th International Workshop on Audio/Visual Emotion Challenge (AVEC '16)*, 2016.
- [C18] G. Giannakakis, M. Padiaditis, G. Stavriniadis, G. Konstantinidis, V. Kritsotakis, V. Tsakanikas, M. Ligerakis, V. Sakkalis, P. Vorgia, and M. Tsiknakis. A computational platform for continuous seizure anticipation monitoring and clinical evaluation. In *13th International Conference on Wearable, Micro and Nano Technologies for Personalized Health*, Heraklion, 29-31 May 2016.
- [C19] G. Giannakakis, P. Vorgia, S. Voutoufianakis, M. Padiaditis, D. Champsas, and M. Tsiknakis. Low frequency preictal EEG waves preceding epileptic seizures originating from right frontal lobe. In *Epilepsia*, 56(Suppl. 1), p. 94, *31st International Epilepsy Congress (IEC)*, Istanbul, 5-9 September 2015.
- [C20] G. Giannakakis, D. Grigoriadis, and M. Tsiknakis. Detection of stress/anxiety state from EEG features during video watching. In *37th Annual International Conference of the IEEE Engineering in Medicine and Biology (EMBC)*, Milano, Italy, 25-29 August 2015.
- [C21] M. Padiaditis, G. Giannakakis, F. Chiarugi, D. Manousos, A. Pampouchidou, E. Christinaki, G. Iatraki, E. Kazantzaki, P. Simos, K. Marias, and M. Tsiknakis. Extraction of facial features as indicators of stress and anxiety. In *37th Annual International Conference of the IEEE Engineering in Medicine and Biology (EMBC)*, Milano, Italy, 25-29 August 2015.
- [C22] Y. Andreu-Cabedo, P. Castellano, S. Colantonio, G. Coppini, R. Favilla, D. Germanese, G. Giannakakis, D. Giorgi, M. Larsson, and P. Marraccini. Mirror mirror on the wall... an intelligent

multisensory mirror for well-being self-assessment. In *IEEE International Conference on Multimedia and Expo (ICME)*, Torino, Italy, 29 June-3 July 2015.

- [C23] E. Christinaki, G. Giannakakis, F. Chiarugi, M. Padiaditis, G. Iatraki, D. Manousos, K. Marias, and M. Tsiknakis. Comparison of blind source separation algorithms for optical heart rate monitoring. In *4th International Conference on Wireless Mobile Communication and Healthcare*, Athens, Greece, 3-5 November 2014.
- [C24] P. Vorgia, S. Voutoufianakis, D. Champsas, V. Kritsotakis, M. Padiaditis, G. Giannakakis, E. Dimitriou, E. Matzourani, and M. Tsiknakis. Presentation study for the development of non invasive epileptic seizure prediction device and electronic health medical record of epileptic patients. In *9th Panhellenic Congress of Epilepsy*, Athens, Greece, 17-19 October 2014.
- [C25] F. Chiarugi, G. Iatraki, E. Christinaki, D. Manousos, G. Giannakakis, M. Padiaditis, A. Pamouchidou, K. Marias, and M. Tsiknakis. Facial signs and psycho-physical status estimation for well-being assessment. In *7th International Conference on Health Informatics*, Angers, France, 3-6 March 2014.
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Theses

- [T1] G. Giannakakis. Development of Electroencephalographic Analysis Methods with the use of Connectivity Models and Entropy Measures (in Greek). Phd thesis, School of Medicine, University of Patras - School of Electrical and Computer Engineering, National Technical University of Athens, 2009.
- [T2] G. Giannakakis. Electroencephalographic Signal Analysis with Applications in Epilepsy and Learning Difficulties (in Greek). M.sc. thesis, School of Medicine, University of Patras - School of Electrical and Computer Engineering, National Technical University of Athens, 2005.
- [T3] G. Giannakakis. Development of psychological diseases diagnosis support system with the use of event related potentials (in Greek). Diploma thesis, School of Electrical and Computer Engineering, National Technical University of Athens, 2003.

Research Impact

Citations: **692**
 h-index : **16**
 i10-index: **24**
 g-index : **25**
 hl,norm : **6**
 hl,annual: **0.38**

Google scholar profile <https://scholar.google.gr/citations?user=AR8VwAMAAAAJ>

Publication	Journal	Impact Factor
J2	IEEE Reviews in Biomedical Engineering	6.180
J5	IEEE Transactions on Affective Computing	7.512
J6	Computer Methods and Programs in Biomedicine	3.632
J7	IEEE Transactions on Multimedia	5.452
J8	Biomedical Signal Processing and Control	2.943
J9	Microelectronic Engineering	1.654
J10	Computer Vision and Image Understanding	2.645
J11	Journal of Psycholinguistic Research	0.659
J12	Behavioral and Brain Functions	2.457
J13	Progress Neuropsychopharmacology Biological Psychiatry	4.315
J14	Neuroreport	1.266

Awards - honours

- 2020 The article “Stress and anxiety detection using facial cues from videos” was included amongst the top 20 most-cited articles in the Biomedical Signal Processing and Control journal
- 2017-2019 Post-Doctoral research grant by the Greek State scholarship (2 years) through the action entitled “Reinforcement of Postdoctoral Researchers”
- 2008 IEEE IST honour for outstanding organization of the IST2008 conference
- 2007 Thomaidio Award for the Progress of Arts and Sciences for the publication [C38]
- 2005 Thomaidio Award for the Progress of Arts and Sciences for the publication [J14]
- 2003 Award for the best NTUA interdisciplinary undergraduate thesis of the year 2003 from Thomaidio Foundation

Organizational Activities

- Member of organizing committee of IEEE International Conference on Imaging Systems and Techniques 2008 (Distinguished organization honor)
- Member of organizing committee of IEEE 8th International Conference on Bioinformatics and BioEngineering 2008
- Charter member of the cultural union Sampajana, Organization of the 1st Sampajana Jazz Festival, Chania, 26-29 June 2012
- Member of organizing committee 8th International Conference on the Foundations of Digital Games, Chania, 14-17 May 2013

Scientific Activities

- Area editor of the EAI Endorsed Transactions on Pervasive Health and Technology, 2020
- Member of the editorial board of the MDPI Signals Journal, 2020
- Guest editor of the special Issue on “Biosignals Processing and Analysis in Biomedicine”, MDPI Signals Journal, 2020
- Member of the International Program Committee in the 20th International Conference on Bioinformatics and BioEngineering 2020 (BIBE2020)
- Member of the International Program Committee and Session Chairman in the 19th International Conference on Bioinformatics and BioEngineering 2019 (BIBE2019)

Reviewer

- IEEE Transactions on Information Technology in Biomedicine (TITB)
- IEEE Transactions on Computational Intelligence and AI in Games
- IEEE Transactions on Affective Computing
- Elsevier Biomedical Signal Processing and Control

Elsevier Computer Methods and Programs in Biomedicine
IEEE Journal of Biomedical and Health Informatics
Elsevier European Journal of Seizure
Epilepsia
PLOS One
MDPI Signals
MDPI Processes
IEEE Engineering in Medicine and Biology Conference (EMBC)
IEEE International Conference on Bioinformatics and Bioengineering (BIBE)
ACM International Conference on Multimodal Interaction (ICMI)
IEEE International Conference on Signal and Image Processing Applications (ICSIPA)
IEEE International Symposium on Computer-Based Medical Systems (CBMS)
EAI International Conference on Wireless Mobile Communication and Healthcare

Scientific - Professional Societies

IEEE Member (Engineering in Medicine and Biology, Signal Processing, Affective Computing societies)
Member of the Technical Chamber of Greece
Member of Greek Company of Computer Scientists and Informatics
Educator certification from National Center of Certification
Member of the Chania Developers group

Personal Interests

Theatre Member of NTUA theatre team
2004: «Rosencrantz and Guildenstern are dead» by Tom Stoppard
2005: «Bremer Freiheit» by R. Fassbinder
2006: «Look at them» by M. Pontikas
2007: «Archangels Don't Play Pinball» by Dario Fo

Cinema 2012: Supporting actor in the film «The Two Faces of January» by Hossein Amini
2016: Supporting actor in the short film «Loca» by Maria Papadaki

Music Accordion

Athletics Table tennis, Chess

Other

Car and motorcycle driver license

References

Available upon request

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