



# Katerina Tzimourta, PhD

SENIOR RESEARCHER | ADJUNCT LECTURER | IT ENGINEER



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## SHORT CV

Dr. Katerina Tzimourta is a Postdoctoral Researcher in the Dept. of Electrical & Computer Engineering, Univ. of Western Macedonia and an Adjunct Lecturer in the same Department. She is an IT Engineer by education and she focuses on the analysis of electroencephalographic (EEG) signals acquired from clinical EEG recordings and data acquired from wearable devices for brain and cognitive disorders' analysis. Over the past 4 years she has developed a diverse set of skills, encompassing teaching abilities, research expertise, and administrative competencies.

## EXPERIENCE

### Adjunct Lecturer

Department of Electrical & Computer Engineering, Univ. of Western Macedonia

04.2023 – Today Kozani, Greece

Department of Mechanical Engineering, Aristotle University of Thessaloniki

03.2024 – 06.2024 Thessaloniki, Greece

Department of Informatics & Telecommunications, University of Ioannina

03.2020 – 03.2024 Arta, Greece

Department of Communication & Digital Media, Univ. of Western Macedonia

10.2021 – 01.2022 Kastoria, Greece

### Postdoctoral Researcher

Department of Electrical & Computer Engineering, Univ. of Western Macedonia

09.2020 – Today Kozani, Greece

### Administrative Assistant

Department of Electrical & Computer Engineering, Univ. of Western Macedonia

03.2023 – Today Kozani, Greece

## FUNDING PROJECT PARTICIPATION

### 06.2023 – Today

Project [GA101083630](#): "smartHEALTH - European Digital Innovation Hub for Smart Health : Precision Medicine and Innovative E-health Services".

**Budget: 3.622.378,00€**

### 01.2024 – Today

Project [TAEDR-0535983](#): "safe-AORTA: Decision Support System for Abdominal Aortic Aneurysm Disease Based on Artificial Intelligence Models". **Budget: 2.457.948,50€**

## EDUCATION

2015 **MEng**  
in Informatics & Telecommunications, Dept. of Informatics & Telecommunications Engineering, University of Western Macedonia

2020 **PhD**  
in Medical Informatics, School of Medicine, University of Ioannina

## LANGUAGES

- GREEK (NATIVE)
- ENGLISH (C2)

## SKILLS

- RESEARCH & SCIENTIFIC WRITING
- PROJECT PORTFOLIO MANAGEMENT
- ORGANIZATION & TIME MANAGEMENT
- EXCELLENT WRITTEN/ VERBAL COMMUNICATION
- LEADERSHIP
- ATTENTION TO DETAIL
- PROBLEM-SOLVING

## DIGITAL SKILLS

MATLAB

### 03.2023 – Today

Project 5158681. “Doctoral program of the Department of Electrical and Computer Engineering” under the action “Internalization actions of University of Western Macedonia”.

### 09.2020 – 10.2023

Project 5069902/T2EΔK-02438. “Intelli-WheelChair: Intelligent electric wheelchair exclusively driven by mental and voice commands”. **Budget: 757.277,85€**

### 05.2018 – 12.2018

Business Plan for the [Ioannina Smart City Project](#), Special Account for Research Grants, Technological Educational Institute of Epirus.

## PUBLICATIONS

Total Scientific Publications: **35**

- Peer-reviewed International Journals: 22
- Peer-reviewed International Conferences: 13

Representative Publications (Full list of publications available at <http://ktzamourta.com/publications/>)

- [1] K. D. **Tzamourta**, *et al.*, “Machine Learning Algorithms and Statistical Approaches for Alzheimer’s Disease Analysis Based on Resting-State EEG Recordings: A Systematic Review”, *International Journal of Neural Systems*, pp.2130002-21300033, 2021.
- [2] K. D. **Tzamourta**, *et al.*, “Analysis of EEG signals complexity regarding Alzheimer’s Disease”, *Computers and Electrical Engineering*, vol. 76, pp. 198-212, 2019.
- [3] K. D. **Tzamourta**, *et al.*, “EEG Window Length Evaluation for the Detection of Alzheimer’s Disease over Different Brain Regions”, *Brain sciences*, vol. 9(4), pp. 81, 2019.
- [4] K. D. **Tzamourta**, *et al.*, “A robust methodology for classification of epileptic seizures in EEG signals”, *Health and Technology*, vol. 9, pp. 135-142, 2018.
- [5] K. D. **Tzamourta** *et al.*, “EEG-based automatic sleep stage classification”, *Biomedical Journal of Scientific & Technical Research*, vol. 1(6), 2018.
- [6] A. Miltiadous, K. D. **Tzamourta**, *et al.*, “Machine Learning Algorithms for Epilepsy Detection based on published EEG databases: A Systematic Review”, *IEEE Access*, vol. 11, pp. 564 – 594, 2023.
- [7] A. Miltiadous, K. D. **Tzamourta**, *et al.*, “Alzheimer’s disease and Frontotemporal dementia: A robust classification method of EEG signals and a comparison of validation methods”, *Diagnostics*, vol. 11(8), pp.1437, 2021.
- [8] A. Miltiadous, K. D. **Tzamourta**, *et al.*, “A Dataset of Scalp EEG Recordings of Alzheimer’s Disease, Frontotemporal Dementia and Healthy Subjects from Routine EEG”, *Data*, vol. 8(6), pp.95, 2023.
- [9] P. Christodoulides, A. Miltiadous, K. D. **Tzamourta** *et al.*, “Classification of EEG Signals from Young Adults with Dyslexia combining a Brain Computer Interface and an Interactive Linguistic Software Tool”. *Biomedical Signal Processing & Control*, vol. 76, pp. 103646, 2022.
- [10] K. Glavas, K. D. **Tzamourta**, A.T. Tzallas, N. Giannakeas and M. G. Tsiouras, “Empowering Individuals With Disabilities: A 4-DoF BCI Wheelchair Using MI and EOG Signals,” in *IEEE Access*, vol. 12, pp. 95417-95433, 2024, doi: 10.1109/ACCESS.2024.3424953. Available: <https://doi.org/10.3390/brainsci14020139>

## CITATIONS

- 548 references (source: [Scopus](#)), h-index = 14
- 922 references (source: [Google Scholar](#)), h-index = 18, i10-index = 20

