

# George Karantaidis

Researcher

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## Education

- Present **PhD candidate**, in *Computer Science*, Aristotle University of Thessaloniki (AUTH), Signal Processing and Information Analysis  
Supervisor: Prof. Constantine Kotropoulos
- 2017 **MSc**, in *Computer Science*, Aristotle University of Thessaloniki (AUTH), Computational Intelligence – Digital Media  
Supervisor: Prof. Constantine Kotropoulos  
Master Thesis: "Multimedia authentication using Electric Network Frequency"
- 2017 **MSc**, in *Engineering*, Aristotle University of Thessaloniki (AUTH), Geoinformatics – Contemporary Geodetic Applications  
Supervisor: Prof. Ilias Tziavos  
Master Thesis: "Gravity field modeling in the wider Crete area using surface gravity data and altimetry data from Cryosat-2 satellite mission"
- 2013 **Diploma**, in *Engineering*, Aristotle University of Thessaloniki (AUTH)  
Supervisor: Prof. Ilias Tziavos  
Diploma Thesis: "Mean sea level and geoid model approximations in the central Mediterranean using satellite altimetry data"

## Research & Professional Experience

- 2022-Present **Researcher**, Information Technologies Institute (ITI) / Centre for Research and Technology Hellas, Greece  
Multimedia Knowledge and Social Media Analytics Laboratory  
Media Analysis, Verification and Retrieval (MeVer) Group
- 2018-2022 **Researcher**, Aristotle University of Thessaloniki (AUTH), Thessaloniki, Greece  
Artificial Intelligence and Information Analysis Laboratory  
Signal Processing and Information Analysis (AIIA.SPINAL) Group
- 2021- Present **Scientific Associate**, CSI Institute, Athens, Greece  
Cyber Security International Institute

## Awards & Scholarships

- 2018 **Scholarship**, General Secretariat for Research and Technology (GSRT) and Hellenic Foundation for Research and Innovation (HFRI), 2nd Call for HFRI Scholarships to PhD candidates
- 2008 **Awarded** by the Greek Train Organization for excellent school performance
- 2007 **Award** for excellent school performance
- 2007 **Award** for the best school performance in class
- 2006 **Award** for excellent school performance
- 2006 **Award** for the best school performance in class

2005 **Award** for excellent school performance  
2004 **Award** for excellent school performance  
2004 **Award** for the best school performance in class  
2001 **Awarded** by the Society of "Panagia Soumela" for excellent school performance

## ■ Memberships

2023 Member of the **Gender Equality Committee** of CERTH  
2015 Member of **Technical Chamber of Greece** (since 2015)

## ■ Conference Organizing Committee

2022 **IEEE Image, Video, and Multidimensional Signal Processing Workshop (IVMSP)**, Nafplio, Greece.

## ■ Workshop Organization

2019 **1st EURASIP - GAIPDM Seasonal School on "Learning from Signals, Images, and Videos"**, Thessaloniki, Greece

## ■ Participation in Conferences

2023 **ACM International Conference on Multimedia Retrieval**, Thessaloniki, Greece.  
2022 **IEEE Image, Video, and Multidimensional Signal Processing Workshop (IVMSP)**, Nafplio, Greece.  
2018 **22nd Pan-Hellenic Conference on Informatics (PCI)**, Athens, Greece.

## ■ Service Reviewer

Artificial Intelligence Review, EURASIP Journal on Advances in Signal Processing, ICMR, ECMLPKDD, WACV, ICASSP.

## ■ Invited Talks

2023 **AEGIS summer school on Multimedia Forensics**, Thessaloniki, Greece.

## Publications

### Peer-reviewed Journals and Conferences

1. **G. Karantaidis**, I. Sarridis and C. Kotropoulos, "Adaptive hypergraph learning with multi-stage optimizations for image and tag recommendation", *Signal Processing: Image Communication* 97, 116367, 2021.
2. **G. Karantaidis** and C. Kotropoulos, "An automated approach for Electric Network Frequency Estimation in static and non-static digital video recordings", *MDPI Journal of Imaging* 7(10), 202, 2021.
3. **G. Karantaidis** and C. Kotropoulos, "Blackman-Tukey spectral estimation and robust ENF matching from power mains and speech recordings", *IET Signal Processing* 15, 6, 396-409, 2021.
4. Piretzidis D, Sra G, **Karantaidis G**, Sideris MG, Hojjat Kabirzadeh. "Identifying presence of correlated errors using machine learning algorithms for the selective de-correlation of GRACE harmonic coefficients", *Geophysical Journal International*, 215 (1), 375-388, 2018
5. C. Mousiadis, **G. Karantaidis**, and C. Kotropoulos, "Electric Network Frequency Optical Sensing Devices". 2023 IARIA Annual Congress on Frontiers in Science, Technology, Services, and Applications (IARIA), 2023.
6. I. Sarridis, **G. Karantaidis** and C. Kotropoulos, "Image driven optimal personalized route recommendation", in *Proc. IEEE Int. Workshop Image Video and Multidimensional Signal Proc. (IVMSP)*, Nafplio, Greece, June 26-29, 2022.
7. **G. Karantaidis** and C. Kotropoulos, "Efficient Capon-based approach exploiting temporal windowing for Electric Network Frequency estimation", in *Proc. IEEE Int. Workshop Machine Learning for Signal Processing (MLSP)*, Pittsburgh, PA, USA, October 13-16, 2019.
8. **G. Karantaidis**, I. Sarridis and C. Kotropoulos, "Block randomized optimization for adaptive hypergraph learning", in *Proc. IEEE Int. Conf. Image Processing (ICIP)*, Taipei, Taiwan, September 22-25, 2019.
9. **G. Karantaidis** and C. Kotropoulos, "Assessing spectral estimation methods for Electric Network Frequency Extraction", in *Proc. 22nd Pan-Hellenic Conf. Informatics (PCI)*, Athens, Greece, 29/11 – 1/12 2018.