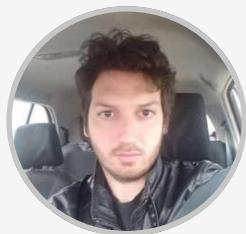# Giannis Lantzanakis

Date of birth: 23/10/1992 | **Nationality:** Greek | **Gender:** Male | **Phone number:** (+30) 2810391773 (Work) | **Phone number:** (+30) 6941603839 (Mobile) |

Email address: lantzanakis@iacm.forth.gr | **Website:** http://rslab.gr/giannis.html |

Research Gate: https://researchgate.net/profile/G_Lantzanakis | **Google Scholar:** https://scholar.google.com/citations?user=S45f1PIAAAAJ&hl=el | **LinkedIn:** https://www.linkedin.com/in/giannis-lantzanakis-1302981b1/?originalSubdomain=gr |

Address: N.Plastira 100, 70013, Heraklion, Greece (Work)

WORK EXPERIENCE

01/01/2021 – CURRENT Heraklion, Greece
RESEARCH ASSOCIATE REMOTE SENSING LAB (IACM - FORTH)

- Algorithm & Software Development
- Softwares with Graphical User Interface
- In-situ Hyperspectral & Thermal measurements
- Artificial Intelligent
- Machine Learning
- Cloud Computing
- Big Data Handling
- Geographic data (raster & vector) handling
- Time Series Analysis

01/06/2019 – 31/12/2020 Heraklion
RESEARCH ASSISTANT REMOTE SENSING LAB (IACM - FORTH)

- Algorithm & Software Development
- Machine Learning
- Time Series Analysis
- LandCover Mapping
- Geographic data (raster & vector) handling
- Web-Site Development

01/05/2015 – 31/05/2019 Heraklion, Greece
SCHOLARSHIP REMOTE SENSING LAB (IACM - FORTH)

- Algorithm & Software Development
- Machine Learning
- LandCover Mapping
- Atmospheric Corrections
- Geographic data (raster & vector) handling
- Web-Site Development

EDUCATION AND TRAINING

10/2010 – 03/2019 Heraklion, Greece
B.SC. ON PHYSICS Univercity of Crete, Department of Physics

Website https://www.physics.uoc.gr/en | **Level in EQF** EQF level 6

10/2022 – 01/2024 Athens, Greece
M.SC. ON ARTIFICIAL INTELLIGENCE AND VISUAL COMPUTING Univercity of West Attica,
Department of Computer Science

Website https://msc-aivc.uniwa.gr/ | **Level in EQF** EQF level 7

LANGUAGE SKILLS

Mother tongue(s):   **GREEK**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

ADDITIONAL INFORMATION

PUBLICATIONS

Initial development of the urbisphere urban hyperspectral library: Berlin, Germany – 2023

G. Lantzanakis, D. Tsirantonakis, N. Chrysoulakis, S. Grimmond, A. Christen and J. Birkmann, "Initial development of the urbisphere urban hyperspectral library: Berlin, Germany," *2023 Joint Urban Remote Sensing Event (JURSE)*, Heraklion, Greece, 2023, pp. 1-4, doi: 10.1109/JURSE57346.2023.10144154.

X-SVM: An Extension of C-SVM Algorithm for Classification of High-Resolution Satellite Imagery –
2020
G. Lantzanakis, Z. Mitraka and N. Chrysoulakis, "X-SVM: An Extension of C-SVM Algorithm for Classification of High-Resolution Satellite Imagery," in *IEEE Transactions on Geoscience and Remote Sensing*, doi: 10.1109/TGRS.2020.3017937.

Comparison of Physically and Image Based Atmospheric Correction Methods for Sentinel-2 Satellite Imagery

– 2017
G. Lantzanakis, Z. Mitraka and N. Chrysoulakis, "Comparison of Physically and Image Based Atmospheric Correction Methods for Sentinel-2 Satellite Imagery," In: Karacostas T., Bais A., Nastos P. (eds) Perspectives on Atmospheric Sciences. Springer Atmospheric Sciences. Springer, Cham, 2017, doi: 10.1007/978-3-319-35095-0_36

Comparison of physically and image based atmospheric correction methods for Sentinel-2 satellite imagery

– 2016
G. Lantzanakis, Z. Mitraka, and N. Chrysoulakis. "Comparison of physically and image based atmospheric correction methods for Sentinel-2 satellite imagery", Proc. SPIE 9688, Fourth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2016), 96880A (12 August 2016), doi: 10.1117/12.2242889

The Use of Sentinel-3 Synergy Products for Physically Based Automatic Atmospheric Correction of Sentinel-2 Imagery

– 2015
G. Lantzanakis, Z. Mitraka and N. Chrysoulakis, "The Use of Sentinel-3 Synergy Products for Physically Based Automatic Atmospheric Correction of Sentinel-2 Imagery", *in ATMOS 2015*, 2015, vol. 735.

Evaluating the Humidity Responsiveness of Bacterial Cellulose for Application in Responsive, Breathable Building Skins

– 2023
N. Pynirtzi, KB. Debnath, G. Lantzanakis, K. Bloch, J. Scott, C. Davie and B. Bridgens, "Evaluating the humidity responsiveness of bacterial cellulose for application in responsive, breathable building skins,"
5th International Conference on Bio-Based Building Materials (ICBBM). 21-23 June 2023, doi: 10.1007/978-3-031-33465-8_49.

[High spatial and temporal resolution Land Surface Temperature for surface energy fluxes estimation](#)

– 2019

Z. Mitraka, S. Stagakis, G. Lantzanakis, N. Chrysoulakis, C. Feigenwinter and S. Grimmond, "High spatial and temporal resolution Land Surface Temperature for surface energy fluxes estimation," 2019 Joint Urban Remote Sensing Event (JURSE), Vannes, France, 2019, pp. 1-4, doi: 10.1109/JURSE.2019.8808951.

[Spatiotemporal monitoring of surface temperature in an urban area using UAV imaging and tower-mounted radiometer measurements](#)

– 2019

S. Stagakis *et al.*, "Spatiotemporal monitoring of surface temperature in an urban area using UAV imaging and tower-mounted radiometer measurements," *2019 Joint Urban Remote Sensing Event (JURSE)*, Vannes, France, 2019, pp. 1-4, doi: 10.1109/JURSE.2019.8808958.

CONFERENCES AND SEMINARS

31/10/2023 – 02/11/2023 – Athens, Greece
13th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing Oral Presentation: Identification of urban surface materials using the urbisphere hyperspectral library for EnMap and PRISMA in the city of Heraklion

17/05/2023 – 19/05/2023 – Heraklion, Greece
JOINT URBAN REMOTE SENSING EVENT (2023) Oral Presentation: Initial development of the urbisphere urban hyperspectral library for the cities of Berlin, Germany and Heraklion, Greece
Award: Best Student Contest Paper Award

19/10/2022 – 21/10/2022 – Frascati, Italy
2nd Workshop on International Cooperation in Spaceborne Imaging Spectroscopy Oral Presentation: Use of hyperspectral measurements for Sentinel-2 image classification for the regions of Berlin and Heraklion

10/05/2022 – 14/05/2022 – Toulouse, France
DART Model Workshop I attended the DART (Discrete Anisotropic Radiative Transfer) workshop and received training on the model.

09/07/2018 – 12/07/2018 – Chania, Greece
38th Annual EARSeL Symposium Earth Observation Supporting Sustainability Research Oral Presentation: Accurate land cover mapping using extended Support Vector Machines on Sentinel-2 imagery

19/09/2016 – 22/09/2016 – Thessaloniki, Greece
13th International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP Oral Presentation: Comparison of physically & image based atmospheric correction methods for Sentinel-2 satellite imagery.

01/08/2016 – 12/08/2016 – Frascati, Italy
EO Summer School 8 I attended seminars about Earth Observation and I presented the "Sentinel-2 atmospheric correction: Status of the Sen2Cor processor and its products."

04/04/2016 – 08/04/2016 – Paphos, Cyprus
4th International Conference on Remote Sensing and Geoinformation of the Environment Oral Presentation: Comparison of Physically & Image Based Atmospheric Correction Methods For Sentinel-2 Satellite Imagery

PROJECTS

2021 – CURRENT
urbisphere Participation in the urbisphere project. His research work concentrates on the development and the use of:
   • Algorithm Development
   • Software Development with Graphical User Interface
   • In-situ Hyperspectral and Thermal measurements and analysis
   • Cloud Computing
   • Machine Learning
   • Artificial Intelligent
   • Big Data Handling
The project *urbisphere* (coupling dynamic cities and climate) is a joint effort of four Principal Investigators and their research teams, funded by the European Research Council (ERC-Synergy). It aims to change how

the scientific community conceptualises, classifies and predicts the climate system and urban planning in cities.

Link http://urbisphere.eu/

2020 – CURRENT
Cure Participation in the Cure project. His research work concentrates on the development and the use of:
- Cloud Computing
- Land Cover Mapping
- Machine Learning
- Time Series Analysis

The EU-funded H2020-Space project CURE (Copernicus for Urban Resilience in Europe) aims to synergistically exploit four Copernicus Core Services (CLMS, CAMS, C3S and EMS) to develop an umbrella cross-cutting application for urban resilience at several European cities.

Link http://cure-copernicus.eu/

2019
Sen4Rus Participation in the Sen4Rus project. His research work concentrates on the development and the use of:
- Time Series Analysis
- Geographic data (raster & vector) handling
- Web-Site Development

The ERA.Net-RUS Plus project SEN4RUS (exploiting Sentinels for supporting urban planning applications at city and regional levels in Russia) aimed at taking into account the specific requirements of spatial and urban planning in Russia to develop indicators that effectively and efficiently exploit the information content provided by Copernicus Sentinels mass data streams in support of city and regional planning

Link http://www.sen4rus.eu/

2017 – 2018
URBANFLUXES Participation in the URBANFLUXES project. His research work concentrates on the development and the use of:
- Machine Learning
- Land Cover Mapping
- Atmospheric Corrections
- Geographic data (raster & vector) handling

The EU-funded H2020 project URBANFLUXES (URBan ANthropogenic heat FLUX from Earth observation Satellites) was a Space project on "New ideas for Earth-relevant space applications" aiming to investigate the potential of Earth Observation (EO) to retrieve anthropogenic heat fluxes.

Link http://urbanfluxes.eu/

EXPERIENCE IN PROGRAMMING

Programming Languages

- Matlab
- Python
- Fortran
- Java
- C/C++

Softwares

- QGIS
- ENVI
- SNAP
- ERDAS
- DART
- Agisoft Metashape
- MeshLab

WebSite Development Languages

- JavaScript
- HTML
- PHP
- CSS