

# **C U R R I C U L U M   V I T A E**

## **Nektarios CHRYSOULAKIS**

Foundation for Research and Technology - Hellas (FORTH)  
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Remote Sensing Lab

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## ***Personal***

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FIRST NAME	Nektarios
LAST NAME	Chrysoulakis
FATHER'S NAME	Miltiadis
BIRTH PLACE	Ierapetra, Crete, Greece
BIRTH DATE	June 4, 1970
PROFESSION	Physicist, PhD holder (University of Athens)
OCCUPATION	Director of Research (Grade A) in Foundation for Research and Technology - Hellas (FORTH)
ADDRESS	Foundation for Research and Technology - Hellas, Institute of Applied and Computational Mathematics, Remote Sensing Lab 100 N. Prastira Str., Vassilika Vouton, 70013, Heraklion, Greece Tel. +30 2810 391762, +30 6932 929775 e-mail: zedd2@iacm.forth.gr URL: <a href="http://rslab.gr">http://rslab.gr</a> <a href="http://www.iacm.forth.gr">http://www.iacm.forth.gr</a>

## ***Education***

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<b>1996-2000</b>	PhD in Remote Sensing, Department of Physics, University of Athens.  PhD Thesis: "Development of a Model Algorithm for the detection and Monitoring of Major Fires and Plumes caused by Industrial Accidents with the use of Satellite Remote Sensing"
<b>1993-1995</b>	MSc in Environmental Physics, Department of Physics, University of Athens
<b>1989-1993</b>	Bachelor Degree in Physics, Department of Physics, University of Athens

## ***Professional Interests***

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- Earth Observation
- Urban Climate - Cities and Climate Change
- Urban Surface Energy Budget - Heat and CO<sub>2</sub> Fluxes
- Thermal Infrared Studies, Surface Temperature Estimation
- Atmospheric Physics - Radiative Transfer - Atmospheric correction
- Remote Sensing Time Series Analysis
- Environmental Monitoring, Change Detection
- Development of Land Use/Cover Databases
- Digital Terrain Models, 3D Visualizations
- Remote Sensing in Urban Planning
- Natural and Technological Risk Analysis
- GIS, Spatial Analysis - Spatial Decision Support Systems

## Professional Experience

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**2014 -**      **Director of Research (Grade A) in Foundation for Research and Technology - Hellas, Institute of Applied and Computational Mathematics**

**Head of the Laboratory of Remote Sensing Research and Applications in Urban and Natural Environment (<http://rslab.gr>)**

**Principal Investigator (corresponding PI) of the ERC-Synergy project:**

**urbisphere - coupling dynamic cities and climate:** Understanding, forecasting, and projecting feedbacks between climate change and drivers of urban transformation.

*Funding Organization: European Research Council (ERC)*

*Duration: 2020 - 2027.*

**Coordinator of the following R&D projects:**

- **CURE:** Copernicus for Urban Resilience in Europe. Developing urban resilience applications, based on Copernicus Core Service.

*Funding Organization: European Union, Horizon2020 - Space*

*Duration: 2020 - 2023.*

- **SEN4RUS:** exploiting Sentinels for supporting urban planning applications at city and regional levels in Russia: developing environmental indicators and a web-based information system to exploit the information content provided by Copernicus Sentinels mass data streams in support of urban planning at local and regional scales in Russia.

*Funding Organization: European Union, FP7 - ERA.Net-RUS Plus*

*Duration: 2016 - 2019.*

- **URBANFLUXES:** URBan ANthropogenic heat FLUX from Earth observation Satellites: investigate the potential of Earth Observation to retrieve the anthropogenic heat flux, as a key component in the urban energy budget and develop a method to derive it from space.

*Funding Organization: European Union, Horizon2020 - Space*

*Duration: 2015 - 2017.*

- **CitySen:** exploitation of dynamic Earth Observation in supporting Sustainable Urban Planning towards Climate Change Mitigation and Adaptation. Innovation Voucher from the Earth Observation Entrepreneurship Initiative of the European Space Agency, for the development of a Business Plan for establishing a Start-up and preparing its candidature for incubation in ESA BIC Noordwijk.

*Funding Organization: European Space Agency (ESA-EOEI)*

*Duration: 2016*

- **EO4SEB:** Advanced Earth Observation techniques for urban Surface Energy Balance modelling (Bilateral cooperation: Greece - France)

*Funding Organization: General Secret. for Research & Technology*

*Duration: 2013 - 2015.*

**Participation in the following R&D projects:**

- **EUSPA/OP/21/21/Lot3:** Provision of technical and business support for downstream space market development, including Renewable Energy and Raw Materials, Agriculture and Forestry, Insurance and Finance, and Urban Development.  
*Funding Organization: EUSPA*  
*Duration: 2023 - 2027.*
- **C-BLUES** - Large Carbon sequestration in BLUe EcoSystems  
*Funding Organization: European Union - Horizon Europe*  
*Duration: 2023 - 2027.*
- **CoCO2 - Prototype system for a Copernicus CO<sub>2</sub> service:** Development of an anthropogenic CO<sub>2</sub> emissions monitoring system to support the European Union countries in assessing their progress in achieving the objectives agreed in the Paris Agreement.  
*Funding Organization: European Union - H2020: Space*  
*Duration: 2021 - 2023.*
- **HARMONIA - Development of a Support System for Improved Resilience and Sustainable Urban areas to cope with Climate Change and Extreme Events based on GEOSS and Advanced Modelling Tools:** Exploitation of existing tools, services and new technologies for the development of an integrated urban resilience to climate change working on top of GEOSS, with emphasis on supporting the adaptation and mitigation measures resulting from the Paris Agreement.  
*Funding Organization: European Union - H2020: Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement*  
*Duration: 2021 - 2024.*
- **CLIMPACTII** - Support for the upgrade of the National Network for Climate Change CLIMPACT.  
*Funding Organization: General Secretariat for Research & Innovation*  
*Duration: 2023 - 2025.*
- **Interconnected Smart Cities for Greece 2.0** - Emblematic actions in interdisciplinary scientific areas with a special interest in connecting with industry.  
*Funding Organization: General Secretariat for Research & Innovation*  
*Duration: 2023 - 2025.*
- **EO4UTEMP** - Large scale exploitation of satellite data for the assessment of urban surface temperatures  
*Funding Organization: European Space Agency, ESA Contract No. 4000130724/20/I-NS*  
*Duration: 2020 - 2022.*
- **BLENDED:** Synergy of Block-chain & Deep Learning for Space Data.  
*Funding Organization: European Space Agency, ESA Contract No. 4000129481/19/NL/AS*  
*Duration: 2020 - 2021.*
- **IGIC: Improvement of green infrastructure in agroecosystems: reconnecting natural areas by countering habitat fragmentation:** Development of a Green Infrastructure network for reconnecting existing nature areas of NATURA 2000 and conserve biodiversity.  
*Funding Organization: European Union - LIFE+*  
*Duration: 2017 - 2022.*

- **PERAN:** Innovating research actions for environmental research and development.  
*Funding Organization: GSRT, Action "KRIPIS II"*  
*Duration: 2017 - 2020.*
- **ThinkNature:** Development of a multi-stakeholder communication platform that will support the understanding and the promotion of Nature Based Solutions in local, regional, EU and International level.  
*Funding Organization: European Union, Horizon2020: Climate action, environment, resource efficiency and raw materials*  
*Duration: 2016 - 2019.*
- **ECOPOTENTIAL:** Improving future Ecosystem benefits through Earth Observations: development of a new unified framework for ecosystem studies and management of protected areas.  
*Funding Organization: European Union, Horizon2020: Climate action, environment, resource efficiency and raw materials*  
*Duration: 2015 - 2019.*
- **ARCHERS:** Advancing Young Researchers' Human Capital in Cutting Edge Technologies in the Preservation of Cultural Heritage and the Tackling of Societal Challenges.  
*Funding Organization: Stavros Niarchos Foundation*  
*Duration: 2017 - 2019.*
- **ENVIRONMENT:** Research in the framework of the Hellenic Republic-Siemens Agreement partially funded by the Programmatic Agreement Between Research Centers-GSRT 2015-2017.  
*Funding Organization: SIEMENS*  
*Duration: 2015 - 2017.*
- **FLIRE:** Floods and fire Risk assessment and management: Change the paradigm for the combined, effective and robust risk assessment and management of both flash floods and forest fires in peri-urban areas, using state of art tools, technologies and methods and taking into account prevention, adaptation and interaction issues.  
*Funding Organization: European Union - LIFE+*  
*Duration: 2012 - 2015.*
- **DRAGON 3:** ESA – MOST cooperation Programme. 3<sup>rd</sup> Framework Cooperation Program between European Space Agency and National Remote Sensing Center of China. Participation in Action: MONITOR: Definition of indicators at the urban scale as supported by EO data. (PI: Prof. D. Asimakopoulos, University of Athens).  
*Funding Organization: European Space Agency*  
*Duration: 2012 - 2016.*
- **PEFYKA:** Innovating methods for observation and improvement of environmental quality and for natural hazards mitigation.  
*Funding Organization: GSRT, Action "KRIPIS: Development proposals of Research Institutions"*  
*Duration: 2013 - 2015.*
- **SPIDOnet.GR:** Spinning or speeding the web? Accelerating biodiversity research using ground spiders as ambassadors of Greek arthropod hotspots (PI: Prof. M. Chatzaki, University of Thrace).  
*Funding Organization: GSRT, Action "ARISTEIA II: Supporting human capital to promote research and innovation"*  
*Duration: 2014 - 2015.*

**2005 - 2014 Senior Researcher (Grade B) in Foundation for Research and Technology – Hellas, Institute of Applied and Computational Mathematics**

**Coordinator of the following R&D projects:**

- **EO4SEB:** Advanced Earth Observation techniques for urban Surface Energy Balance modelling (Bilateral cooperation: Greece - France)  
*Funding Organization: General Secret. for Research & Technology*  
*Duration: 2013 - 2015*
- **GEOURBAN:** Exploiting Earth Observation in sustainable urban planning & management: bridging the gap between Earth Observation scientists and urban planners focusing on urban structure and urban environmental quality.  
*Funding Organization: European Union, FP7 - ERA.Net-RUS*  
*Duration: 2012 - 2013*
- **BRIDGE:** Sustainable urban planning Decision support accounting for urban metabolism: Bridging the gap between bio-physical sciences and urban planners and to illustrate the advantages of accounting for environmental issues on a routine basis in design decisions, focusing on the interrelation between energy and material flows and urban structure.  
*Funding Organization: European Union, FP7 - Environment including Climate Change*  
*Duration: 2008 - 2011*
- **PROGRESSION:** Prototyping the retrievals of energy fluxes and surface soil moisture: Development of a series of prototype products for the operational retrieval of sensible and latent heat fluxes, as well as soil surface moisture content by using a synergy of ESA's satellite sensors (Post-doc research, PI: Dr. G. Petropoulos)  
*Funding Organization: European Space Agency - The Changing Earth Science Network*  
*Duration: 2010 - 2012 (FORTH involvement: 2010 - 2011)*
- **ATMOSAT:** Adjustment of atmospheric correction methods for local Studies: Application in ASTER data for the area of Crete (Bilateral cooperation: Greece - US - Japan).  
*Funding Organization: General Secret. for Research & Technology*  
*Duration: 2006 - 2008*
- **PRECIPITABLE WATER:** Study on the spatial – temporal distribution of atmospheric water content with the combined use of satellite remote sensing and non-linear science (Bilateral cooperation: Greece - China).  
*Funding Organization: General Secret. for Research & Technology*  
*Duration: 2005 - 2007*
- **PLUMESAT:** Use of a satellite ground receiving station for the detection and monitoring of fires and plumes caused by major natural and man-made disasters (Bilateral cooperation: Greece - France)  
*Funding Organization: General Secret. for Research & Technology*  
*Duration: 2005 - 2007*
- **REALDEMS:** Remote sensing Application for Land cover and Digital Elevation Models Service (Bilateral cooperation: Greece - US).  
*Funding Organization: General Secret. for Research & Technology*  
*Duration: 2004 - 2006*

- **SATERM:** A Satellite Technique for Estimating Rainfall over Mediterranean (Bilateral cooperation: Greece - US).  
*Funding Organization: General Secret. for Research & Technology*  
*Duration: 2004 - 2006*

***Participation in the following R&D projects:***

- **FLIRE – F**Lloods and fie Risk assessment and management: Change the paradigm for the combined, effective and robust risk assessment and management of both flash floods and forest fires in peri-urban areas, using state of art tools, technologies and methods and taking into account prevention, adaptation and interaction issues.  
*Funding Organization: European Union - LIFE+*  
*Duration: 2012 - 2015.*
- **DRAGON 3:** ESA – MOST cooperation Programme. 3<sup>rd</sup> Framework Cooperation Program between European Space Agency and National Remote Sensing Center of China. Participation in Action: MONITOR: Definition of indicators at the urban scale as supported by EO data. (PI: Prof. D. Asimakopoulos, University of Athens).  
*Funding Organization: European Space Agency*  
*Duration: 2012 - 2016.*
- **AKAI**PRO: Study of the extreme weather events in local scale to assess their impacts on civil protection and economy.  
*Funding Organization: General Secret. for Research & Technology – Cooperation 2011: Partnerships of Production and Research Institutions in Focused Research and Technology Sectors.*  
*Duration: 2011 - 2013*
- **DRAGON 2:** ESA – MOST cooperation Programme. 2<sup>nd</sup> Framework Cooperation Program between European Space Agency and National Remote Sensing Center of China. Participation in Action: Use of Earth Observation in support of Major Sport Events: Case Study for the Athens, Beijing and London Olympic Games (PI: Prof. D. Asimakopoulos, University of Athens).  
*Funding Organization: European Space Agency*  
*Duration: 2008 - 2012.*
- **UHI-** Urban Heat Islands and Urban Thermography. Analysis of the Urban Heat Island trends over 10 European cities over the last 10 years, using a multi-sensor approach. Participation as external expert (PI: Dr. I. Daglis, National Observatory of Athens).  
*Funding Organization: European Space Agency*  
*Duration: 2008 - 2012.*
- **TRANSFER:** Tsunami Risk ANd Strategies For the European Region. Specific Targeted Research Project (STREP). Contribution to our understanding of tsunami processes in the Euro-Mediterranean region, to assessing the tsunami risk and to identifying the best strategies for reduction of tsunami risk.  
*Funding Organization: European Union, FP6 - Sustainable Development, Global Change and Ecosystem*  
*Duration: 2006 - 2008.*

- **DRAGON 1:** ESA - MOST cooperation Programme. 1<sup>st</sup> Framework Cooperation Program between European Space Agency and National Remote Sensing Center of China. Participation in Action: Use of Earth Observation in Support of the Needs of Major Athletic Events: Case Study for the Olympic Games: Athens-Beijing-London, (PI: Prof. C. Cartalis, University of Athens).

*Funding Organization: European Space Agency*

*Duration: 2005 - 2008.*

- **ATLANTAS AKTIS:** Development and pilot operation of an integrated Geographical Information System in support of the coastal zone management.

*Funding Organization: General Secret. for Research & Technology – European Regional Development Fund*

*Duration: 2006 - 2008*

#### ***Operation of a low resolution satellite ground receiving station***

The satellite station has been installed at FORTH/IACM since 2002. It receives AVHRR and MVIRS data from NOAA and Fen Yung satellites.

**2001 - 2005 Associate Researcher (Grade C) in Foundation for Research and Technology – Hellas, Inst. of Applied and Computational Mathematics**

#### ***Leading investigator of the following R&D projects:***

- **GGOA-GIS:** Development of a GIS-based application to support the activities of the General Secretariat for the Olympic Games in monitoring the economic process of Olympic Works

*Funding Organization: General Secret. for the Olympic Games 2004*

*Duration: 2003 - 2004*

- **BLUE BOOKS:** Reconstruction and Enrichment of the Official Web Site of the International Olympic Academy

*Funding Organization: General Secret. for the Olympic Games 2004*

*Duration: 2002 - 2003*

#### ***Participation in the following R&D projects:***

- **GipSyNoise:** An efficient GIS tool oriented to meeting the objectives of the European Directive on the Assessment and Management of Environmental Noise

*Funding Organization: European Union - LIFE*

*Duration: 2003 - 2005*

- **WADI:** Water Supply Watershed Planning and Management: An Integrated Approach.

*Funding Organization: European Union, FP5 - INCO MEDII*

*Duration: 2001 - 2004*

- **FORMIDABLE:** Friendly Operational Risk Management through Interoperable Decision Aid Based on Local Events.

*Funding Organization: European Union, FP5 - IST*

*Duration: 1999 – 2002*



**1994 - 2001**    **University of Athens, Department of Physics, Division of Appl. Physics.**  
**Research Assistant in the Remote Sensing Laboratory.**  
**Participation in the following R&D projects:**

- **AIR QUALITY:** An Information Campaign for Schools in the field of Air Quality and Urban Policy (the operation).  
*Funding Organization: European Union*  
*Duration: 2000 - 2001*
- **SUSTAINABLE SCHOOLS:** An Information Campaign for Schools in the field of Sustainable Use of Natural Resources.  
*Funding Organization: Ministry of Education*  
*Duration: 2000 - 2001*
- **GLOBE – ALEXANDROS:** Global Learning and Observations to Benefit the Environment.  
*Funding Organization: Ministry of Education, Ministry of Environment*  
*Duration: 1996 - 1999*
- **MEDACT** (MEDiterranean Action): The **APHRODITE** Project.  
*Funding Organization: European Union - LIFE*  
*Duration: 1997 – 1998*
- **DIFFUSION:** Education and Training Activities in Support of the Diffusion of Earth Observation in the Public Sector of Greece.  
*Funding Organization: European Union - CEO*  
*Duration: 1997 – 1998*
- **CO<sub>2</sub>:** Estimation of the Impacts of CO<sub>2</sub> and other Greenhouse Effect Emissions on Climate Change.  
*Funding Organization: Ministry of Environment*  
*Duration: 1996 – 1997*
- **Application of Remote Sensing in Agriculture**  
*Funding Organization: European Union - CEO*  
*Duration: 1996 - 1997*

## Invited Talks

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- 2023:** 2<sup>nd</sup> Symposium of the Association of Physicists of Crete "Physics in Action" 19/3/2023. Invited Talk on: "Exploitation of Earth Observation in the domains of Urban Climate and Urban Resilience" (Heraklion, Greece).
- 2023:** Experimental Gymnasium of Heraklion, 6/4/2023. Invited Talk on: "Cities and Climate Change" (Heraklion, Greece).
- 2022:** EuroGEO Workshop 2022: Towards an integrated and convergent EuroGEO - Greek GEO Office, National Observatory of Athens, 07/12/2022. Invited Talk on "Coupling dynamic cities and climate" (Athens, Greece).
- 2022:** FORTH - Institute of Computer Science: Workshop on "Building a Digital Earth for Studying Climate Change", 06/05/2022. Invited Talk on "RSLab activities towards urban resilience and climate neutrality" (Heraklion, Greece).
- 2021:** PRAXI Network, National Contact Point for Horizon Europe: Presentation in the Round Table Session of the Horizon Europe ERC Information Day on "Overview of the ERC-Synergy project *urbisphere*", organized on 6/10/2021 (On-line).
- 2021:** Workshop on "We need to talk about data: Exploring how data affects our lives", organized by the Data Research, Access, and Governance Network (DRAGoN) at University of West England Bristol. Invited talk on "Urban resilience in Europe", organized on 1/7/2021 (On-line).
- 2021:** BEYOND Center of Excellence, National Observatory of Athens: Webinar in the framework of BEYOND dialogues on "Observation of urban dynamics towards enhancing urban resilience", organized on 17/5/2021. <https://www.youtube.com/watch?v=z3tyOzt3SAs&t=467s> (On-line).
- 2021:** University of Basel: Webinar series on Current Topics in Geosciences - FS 2021. Webinar on "Earth Observation for urban climate and resilience", organized on 14/4/2021. <https://duw.unibas.ch/en/event/details/current-topics-in-geosciences> (On-line).
- 2021:** Workshop on "Artificial Intelligence for Big Satellite Data", organized by six leading Greek Research Foundations to showcase how Machine Learning can unlock the potential of Big Earth Observation Data for socio-environmental good on 25/2/2021. Invited Talk on: "Big Earth Data for Urban Climate and Resilience" [https://www.youtube.com/watch?v=\\_5o6a8OFTXk](https://www.youtube.com/watch?v=_5o6a8OFTXk) (On-line).
- 2020:** ERATOSTHENES: Excellence Research Centre for Earth Surveillance and Space-Based Monitoring of the Environment, Cyprus University of Technology. Webinar on "Cities and Climate Change", organized on 16/11/2020. <https://youtu.be/pWcF4YfOtzU> (Limassol, Cyprus).
- 2020:** Remote Sensing Technologies and Applications in Urban Environments V, organized in the framework of SPIE Remote Sensing (<https://spie.org/conferences-and-exhibitions/past-conferences-and-exhibitions/remote-sensing-2020>), 21-25/9/2020. Invited Talk on: "Copernicus Copernicus for Urban Resilience in Europe: the CURE Project" (On line).
- 2020:** Invited Talk on "Cities and Climate Change" in the framework of "Open Science, Our Future", organized by H2B HUB in collaboration with FORTH (Heraklion, Greece).
- 2019:** European Association of Remote Sensing Companies (EARSC): Open Clouds for Research Environments (OCRE) Workshop: Shaping EO services market for research (<https://www.ocre-project.eu/events/ocre-workshop-shaping-earth-observation-services-market-research>), 20/6/2019. Invited Talk on "Urban climate requirements" (Brussels, Belgium).
- 2019:** FORTH – Institute of Computer Science: Computational Intelligence in Remote Sensing and Astrophysics (CIRSA) workshop (<http://spl.edu.gr/index.php/CIRSA>), 19/07/2019. Invited Talk on "Big-data in EO-based Urban Climate Research and Applications" (Heraklion, Greece).

- 2019:** 8<sup>th</sup> Summer School of Environmental Journalism: Workshop on Climate Change and Natural Disasters (<http://www.rpi.gr/en/πρόγραμμα-8ου-θερινού-σχολείου-στην-πε/>), 21/07/2019. Invited Talk on "Urban Climate and Climate Change" (Chania, Greece).
- 2019:** European Commission, DG GROW (Directorate General for Internal Market, Industry, Entrepreneurship and SMEs): paving the way for HorizonEurope in the Earth Observation downstream sector: fostering a competitive and sustainable European Earth Observation downstream workshop, 8/10/2019. Invited Talk on "Urban Resilience" (Brussels, Belgium).
- 2019:** Council of the Region Crete, 19/12/2019. Invited Talk on "Cities and Climate Change" (Heraklion, Greece).
- 2018:** Remote Sensing Technologies and Applications in Urban Environments, organized in the framework of SPIE Remote Sensing (<http://spie.org/conferences-and-exhibitions/remote-sensing>), 10-13/9/2018. Invited Talk on "Copernicus Sentinels for urban planning in Russia: the SEN4RUS Project" (Berlin, Germany).
- 2018:** Key-note Speaker in the 38<sup>th</sup> Annual EARSeL Symposium: "Earth Observation Supporting Sustainability Research", organized by the European Association of Remote Sensing Laboratories (<http://symposium.earsel.org/38th-symposium-Chania>), 9-12/7/2018. Invited Talk on "Energy Budget from Space: towards supporting Sustainable Urban Planning" (Chania, Greece).
- 2018:** Workshop on "Big Data processing in the forthcoming era of ultra-high resolutions", organized in the framework of BigSkyEarth COST Action (<http://bigskyearth.eu>), 26-27/2/2018. Invited Talk on "Massive data analysis in urban climate research" (Novi-Sad, Serbia).
- 2017:** Remote Sensing Technologies and Applications in Urban Environments, organized in the framework of SPIE Remote Sensing (<https://spie.org/conferences-and-exhibitions/remote-sensing>), 11-14/9/2017. Invited Talk on "Anthropogenic heat flux estimation from space: results of the final phase of the URBANFLUXES Project" (Warsaw, Poland).
- 2017:** Urban Climate and Urban Biometeorology Session, organized in the framework of the European Geoscience Union General Assembly, on April 26, 2017 (<http://meetingorganizer.copernicus.org/EGU2017/orals/22751>). Invited Talk on "Anthropogenic heat flux estimation from space: results of the second phase of the URBANFLUXES Project" (Vienna, Austria).
- 2016:** Remote Sensing Technologies and Applications in Urban Environments, organized in the framework of SPIE Remote Sensing (<http://spie.org/conferences-and-exhibitions/remote-sensing>), 26-29/9/2016. Invited Talk on "Anthropogenic heat flux estimation from space: results of the first phase of the URBANFLUXES Project" (Edinburg, United Kingdom).
- 2016:** European Space Agency Summer Schools on Monitoring of the Earth System (<https://earth.esa.int/web/eo-summer-school/home>), held at ESA/ESRIN on 1-12/8/2016. Invited Lectures on: a) "Urban Remote sensing applications", b) "The exploitation of EO in urban energy budget estimation" and c) "EO-derived surface albedo time series" (Frascati, Italy).
- 2016:** International SPatial LITeracy (SPLIT), Remote Sensing Summer School 2016, held at the Mediterranean Agronomic Institute of Chania, on 5-10/6/2016 (<http://splits2016.com/>). Invited Talk on "Earth Observation for Urban Climate" (Chania, Greece).
- 2016:** EASME: 10<sup>th</sup> GEO European Projects Workshop 2016 on "Fostering Open Earth Observation for Europe", held at the Federal Ministry of Transport and Digital Infrastructure of Germany, on 31/5-2/6/2016 (<https://ec.europa.eu/easme/en/geo-european-projects-workshop-2016>). Invited Talk on "Urban Anthropogenic Heat Flux Measured from Earth Observation Satellites – The H2020 Project URBANFLUXES" in the framework of "Earth Observation in Support of Urban Monitoring" (Berlin, Germany).

- 2016:** National Observatory of Athens, Master of Science in Space Science Technologies and Applications (<http://space.uop.gr>) 1/3/2016. Invited Talk on "Urban Heat Fluxes from Earth Observation" (Athens, Greece).
- 2015:** Directorate-General for Regional and Urban Policy, workshop on "Copernicus and the Urban Atlas: Measuring cities and their qualities", held in the framework of Open Days 2015 (13<sup>th</sup> European Week for Regions and Cities), on 15/10/2015 ([http://ec.europa.eu/regional\\_policy/opendays/od2015/index.cfm](http://ec.europa.eu/regional_policy/opendays/od2015/index.cfm)). Invited Talk on "Urban Atlas in Urban Research projects" (Brussels, Belgium).
- 2015:** National and Kapodistrian University of Athens. MSc Program in Environmental Physics and Meteorology: Invited Talk on "Urban Metabolism: Introduction and bottom-up approaches" (Athens, Greece).
- 2014:** International Symposium on "The Mediterranean City 2014: Adaptation Strategies to Global Environmental Change in the Mediterranean City and the Role of Global Earth Observations", jointly organised by the European Commission, the Eurisy, the Mediterranean City Climate Change Consortium, the Mariolopoulos – Kanaginis Foundation for the Environmental Sciences, the Academy of Athens and the Justus-Liebig University of Giessen: Invited Talk on "EO for Urban Planning: The GEOURBAN Project" (Athens, Greece).
- 2014:** International Conference on "Renaturing Cities: Addressing Environmental Challenges and the Effects of the Economic Crisis through Nature-Based Solutions", organized by the European Commission (Directorate for Climate Action and Resource Efficiency) under the auspices of the Hellenic Presidency of the Council of the European Union: Rapporteur in Session 1 "Going Green: How are cities facing the economic crisis and leading green economy?" (Brussels, Belgium).
- 2014:** National and Kapodistrian University of Athens. MSc Program in Environmental Physics and Meteorology: Invited Talk on "Urban Metabolism: Introduction and bottom-up approaches" (Athens, Greece).
- 2014:** National and Kapodistrian University of Athens. MSc Program in Environmental Physics and Meteorology: Invited Talk on "Urban Remote Sensing" (Athens, Greece).
- 2014:** Workshop on "Global Urban Observation and Monitoring from Space", organized by the National Observatory of Athens, in the framework of the FP7 project BEYOND: Invited talk on "EO for Urban Planning: The GEOURBAN Project" (Athens, Greece).
- 2013:** Workshop of the Med Project MAIN on "Smart materials: Energy efficiency and improvement of urban microclimate", co-organized by the Municipality of Acharnes, the Athens Chamber, to Institute of Accelerating Systems and Applications and the University of Athens: Invited talk on "Use of Earth Observation in improving of urban microclimate" (Acharnes, Greece).
- 2013:** DG Research & Innovation, workshop on "Fostering innovative dialogue between researchers and stakeholders to meet future challenges: Land, Soil, Desertification, Urban and Community-Based Environmental Management": Invited talk on "Communities of Practice: Lessons/Examples from BRIDGE and GEOURBAN Projects" (Brussels, Belgium).
- 2012:** DG Research & Innovation – DG RTD, I.3, Meeting of Coordinators (Urban issues, Soil Biodiversity, Desertification and Land Degradation): Invited talk on "BRIDGE Main Achievements" (Brussels, Belgium).
- 2012:** Urban Physics and interactions across the Scales (<http://www.urbanphysics2012.org/>): Lecture on "Urban Remote Sensing", in Spring School 2012: An international specialized workshop for doctoral students and post doctoral researchers, organized by the University of Cyprus, the Swiss Federal Institute of Technology Zurich (ETH) and the Eindhoven University of Technology (Limassol, Cyprus).
- 2011:** FRENZ (Facilitating Research co-operation between Europe and New Zealand) Project: Invited talk on "BRIDGE: A decision support tool for sustainable urban metabolism", in a Sandpit workshop on ICT Tools for Governance and Policy Modelling (Rotorua, New Zealand).

- 2011:** DG Research & Innovation – DG RTD, I.3, FP7 Coordinators Meeting: Invited talk on “BRIDGE Project Overview and Results” (Brussels, Belgium).
- 2010:** Cyprus University of Technology: Invited talk on “Space Applications for Cyprus and the Mediterranean Region”, in a workshop organized by the European Space Agency and the Frederick University (Nicosia, Cyprus).
- 2009:** ICT-ENSURE (European ICT Environmental Sustainability Research) Project: Invited talk on “ICT for Urban Metabolism: The case of BRIDGE”, in a workshop on ICT for Sustainable Use of Natural Resources (<http://ict-ensure.tugraz.at/en/index.php/ensure/Organisational-Content/Downloads-Resources/Presentation-Slides/EnvioInfo-2009-Berlin>), that was organized in the framework of EnvioInfo 2009 (Berlin, Germany).
- 2007:** Hellenic Association of Rural and Surveying Engineers: Invited talk on “Remote sensing and GIS” in a workshop on “The Development of GIS for Local and Regional Governance” (Volos, Greece).
- 2006:** University of the Aegean: Invited Talk on “Digital Elevation Models Production using Satellite stereo-pairs: Applications of ASTER derived Digital Elevation Models and Land Cover/Use” (Mytiline, Greece).
- 2005:** Jet Propulsion Laboratory: Invited talk on “Combining Satellite and Socioeconomic Data for Land Use Models Estimation” (Pasadena, USA).
- 2004:** Land-Water-MED Network: Invited talk on “Use of ASTER imagery in GIS-based Watershed Analysis at Mediterranean Islands”, in Land-Water-MED Workshop, held in Joint Research Centre (Ispra, Italy).

## Scientific Campaigns

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- 2022:** Two weeks (1-12/8/2022) campaign for multiscale - in-situ, drone-based, airborne and satellite - observations in the city of Berlin in the framework of the ERC-SyG project *urbisphere*.
- 2022:** Continuous (2022) campaign for multitemporal in-situ spectroradiometric observations for the development of a spectral library for the city of Heraklion in the framework of the ERC-SyG project *urbisphere*.

## **Educational Activities**

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- 2009 - University of Crete, Department of Physics**
- Visiting Professor for the course of “**Principles and Applications of Satellite Remote Sensing**”. Academic Years **2009 - 2010, 2010 - 2011, 2011 - 2012, 2012 - 2013, 2013 - 2014, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020, 2021-2022 and 2022 - 2023**.
- Course URL: <http://ph338.edu.physics.uoc.gr>
- 2015 - Mediterranean Agronomic Institute of Chania (MAICh)**
- Visiting Professor for the course of “**Remote sensing of Urban Environments**” of The Master Programme “Geoinformation in Environmental Management”. Academic Years **2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020, 2020 - 2021, 2021 - 2022 and 2022 - 2023**.
- URL: <http://www.maich.gr/en/education>
- 2023 - Albert-Ludwigs-Universität Freiburg, Faculty of Environment and Natural Resources**
- Co-supervisor of the PhD candidate Mr. I. Lantzanakis; topic: “Multiscale identification and mapping of urban surface radiative and thermal properties”.
- Albert-Ludwigs-Universität Freiburg, Faculty of Environment and Natural Resources**
- Co-supervisor of the PhD candidate Mr. D. Tsirantonakis; topic: “Identification and mapping of urban vegetation characteristics and long-term dynamics at local scale”.
- 2022 - Hellenic Mediterranean University, Department of Agriculture**
- Member of the advisory committee for the PhD candidate Mr. D. Chatzidauid; topic: “Non-invasive and low-cost techniques for zoning and monitoring of land parcels’ spatiotemporal soil variability”
- 2023 Norwegian University of Life Sciences, Faculty of Science and Technology**
- First opponent for the PhD thesis of Mrs A. K. Kuras; topic: “Airborne hyperspectral imaging for multisensor data fusion”.
- National and Kapodistrian University of Athens, Department of Physics**
- Member of the jury committee for the PhD candidate Mr. N. Papanikolaou; topic: “Urban Heat Island and its Impact on Building Energy Consumption”.
- University of Crete, Department of Computer Science**
- Member of the jury committee for the PhD candidate Mr. M. Giannopoulos; topic: “Tensor Signal Modelling for High-Dimensional Deep Learning Systems”.

- 2020 - 2021 Mediterranean Agronomic Institute of Chania (MAICh)**  
Advisor for the MSc candidate Mr. A. Tsirantonakis; topic: "Urban Climate Service Tools evaluation at a typical Mediterranean city".
- 2021 Aristotle University of Thessaloniki, Department of Forestry and National Environment**  
Member of the jury committee for the PhD candidate Mrs A. Stefanidou; topic: "Development of advanced cartographic products to improve firefighting design using modern remote sensing data".
- 2016 - 2023 University of Crete, Department of Biology**  
Member of the advisory committee for the PhD candidate Mr. N. Kiamos; topic: "Small Mammals of Greece: A survey of distributions and ecological preferences combining GIS and Tyto alba pellets analysis".
- 2015 - 2021 National and Kapodistrian University of Athens, Department of Physics**
- Member of the advisory committee for the PhD candidate Ms I. Siarka; topic: "Combined use of satellite remote sensing and microclimatic simulations to support adaption to urban climate change".
  - Member of the advisory committee for the PhD candidate Mr. E. Agathagelidis; topic: "Detection of urban energy fluxes, estimation of ecosystem and anthropogenic contribution to energy fluxes and development of an urban heat island indicator".
  - Member of the advisory committee for the PhD candidate Mrs Th. Mayrakou; topic: "Climate change mitigation through the study of the urban energy budget, based on combined use of advance remote sensing techniques and numerical models".
- 2020 Cyprus University of Technology, Dept. of Civil Engineering-Geomatics**  
Member of the jury committee for the PhD candidate Mr. M. Tzouvaras; topic: "Monitoring and Assessment of the Impact of Natural Hazards on Infrastructure Resilience Using EO Techniques".
- 2019 University of Crete, Department of Physics**  
Supervisor for the BSc Thesis of Mr. K. Politakos; topic: "Comparative study of annual carbon dioxide emissions for the city of Heraklion"
- 2019 Mediterranean Agronomic Institute of Chania (MAICh)**  
Co-Advisor for the MSc candidate Mrs I. Soubry; topic: "Assessment of Phenology Metrics Estimation by the use of Landsat and Sentinel-2: A case study in Crete"
- 2015 - 2018 University of Basel, Faculty of Science**  
Co-supervising and member of the Examination Committee for the PhD candidate Mr. A. Wicki; topic: "The Urban Climate of Basel/ Switzerland: Analysis, Investigation and Perspectives Using Remote Sensing and GIS Techniques".

- 2013 - 2016** *Tor Vergata University of Rome, Department of Information, Systems and Production*
- Member of the advisory committee for the PhD candidate Mrs Z. Mitraka; topic: "Dynamics, magnitude and spatial form of the urban heat island effect and its impact on the biophysical, climatic and environmental processes"
- 2016** *University of Crete, Department of Physics*
- Supervisor for the BSc Thesis of Mr. I. Lantzanakis; topic: "Atmospheric correction of Sentinel-2 and Landsat satellite images using the 6S model"
- 2014 - 2015** *University of Hamburg, Department of Mathematics: Erasmus Mundus MSc in Mathematical Modelling and Engineering*
- Member of the advisory committee for the PhD candidate Mr. A. Beloconi; topic: "Spatio-temporal approach for the estimation of urban PM2.5 and PM10 concentrations, based on MERIS/AATSR synergistic observations and urban land cover and morphology data".
- 2013 - 2015** *National and Kapodistrian University of Athens, Department of Physics*
- Invited lecturer in post-graduate studies program "Environmental Physics and Meteorology".
- 2013 - 2014** *University of Crete, Department of Biology*
- Invited lecturer in post-graduate studies program "Environmental Biology - Terrestrial and Marine biological resources management".
- 2008 - 2013** *Aristotle University of Thessaloniki, Department of Geology*
- Member of the advisory committee for the PhD candidate Mr. A. Giannakos; topic: "Contribution to the development of a technique for the estimation of rainfall from multispectral satellite data".
- 2009 - 2012** *Cyprus University of Technology, Dept. of Civil Engineering-Geomatics*
- Member of the advisory committee for the PhD candidate Mr. K. Themistocleous; topic: "Improving atmospheric correction methods for aerosol optical thickness retrieval supported by in-situ observations and GIS analysis".
- 2007 - 2010** *National and Kapodistrian University of Athens, Department of Physics*
- Member of the advisory committee for the following PhD candidates:
- ✓ Mrs N., Adaktylou; topic: "Design, development and evaluation of a learning platform for satellite remote sensing".
  - ✓ Mrs M. Stathopoulou; topic: "Improvement of spatial scale land of AVHRR land surface temperature retrievals to improve the estimation of surface urban heat island intensity".
- 2005 - 2006** *University of the Aegean, Department of Geography*
- Invited lecturer in post-graduate studies program "Geography & Applied Geo-informatics".
- 2001 -** *FORTH, Institute of Applied and Computational Mathematics*
- Advisor in undergraduate thesis and internships of students from University of Crete (Dept. of Physics and Dept. of Applied Mathematics) and from Technological Educational Institute of Crete (Dept. of Applied Informatics and Multimedia, Dept. of Environment Management).



**2000 - 2001    *University of Athens, Department of Physics***

- Laboratory courses on Physics (Mechanics - Oscillations - Relativity Theory) for the undergraduate students.
- Development of Distance Learning courses on Environmental Education focusing on Energy Consumption and CO<sub>2</sub> Emissions.
- Development of Distance Learning courses on sustainable use of natural resources in schools.

***National Technical University of Athens, Faculty of Naval Architecture***

Participation in courses on Remote Sensing Methods and Databases for the study of the Marine Environment for the graduate students.

**1995 - 1998    *University of Athens, Department of Physics***

- Undergraduate laboratory courses on Atmospheric Physics.
- Development of Distance Learning courses on Digital Image Processing and Remote Sensing Applications. (<http://sat.uoa.gr/diff>).

## Scientific Collaborations

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- National and Kapodistrian University of Athens (GR)
- National Observatory of Athens (GR)
- University of the Aegean (GR)
- University of Thessaly (GR)
- National Technical University of Athens (GR)
- University of Crete (GR)
- Technical University of Crete (GR)
- Aristotle University of Thessaloniki (GR)
- Cyprus University of Technology (GR)
- JPL (USA)
- GSFC (USA)
- INRIA (FR)
- European Space Agency
- DLR (D)
- CNES (FR)
- SAGA University (JP)
- Chengdu University of Information Technology (CN)
- King's College London (UK)
- Consiglio Nazionale delle Ricerche (IT)
- Instytut Ekologii Terenów Uprzemysłowych (PL)
- CESBIO (FR)
- Technical University of Madrid (ES)
- University of Southampton (UK)
- University of Reading (UK)
- University of Freiburg (D)
- GRAD Inform (RUS)
- Kuzgun Bilisim Ltd. (TR)
- DATAMAT S.A. (IT)
- FMA (IT)
- VITROCISET S.p.A. (IT)
- UCM (ES)
- CIDA (ES)
- EADS (FR)
- Dartcom (UK)
- Trinity College Dublin (IR)
- University of Helsinki (FI)
- CMCC (IT)
- Météo France CNRM (F)
- Alterra B.V (NL)
- University of Basel (CH)
- University of Aveiro (PT)
- Tel-Aviv University (IL)
- University of Hamburg (D)
- GARD Ltd. (IL)
- DELTARES (NL)
- TerraDue (UK)
- Google-GEE (CH)
- GeoVille (A)
- University of Stuttgart (D)
- ECMWF

## Languages

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Greek, English

## Honors and Awards

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Vardinogianneion Foundation Award (1996 - 1997)

## Professional Memberships

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- Geoscience and Remote Sensing Society (GRSS) of the Institute of Electrical and Electronics Engineers (IEEE)
- Association of European Research Council (ERC) Grantees
- American Geophysical Union (AGU)
- European Geoscience Union (EGU)
- International Society for Optical Engineering (SPIE)
- International Association of Urban Climate
- European Association of Remote Sensing Laboratories (EARSeL)
- Hellenic Society for Photogrammetry & Remote Sensing (HSPRS)
- Hellenic Society for Geographical Information Systems (HellasGI).  
*Member of the Management Board 2004 - 2006.*
- Hellenic Physicists Society
- Hellenic Meteorological Association

## ***Referee in International Journals***

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Scientific Reports  
Remote Sensing of Environment  
International Journal of Remote Sensing  
Photogrammetric Engineering and Remote Sensing  
IEEE Transactions on Geoscience and Remote Sensing  
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing  
ISPRS Journal of Photogrammetry and Remote Sensing  
Remote Sensing  
Optical Engineering  
Boundary Layer Meteorology  
Journal of Applied Meteorology & Climatology  
Meteorology and Atmospheric Physics  
Advances in Space Research  
Urban Ecosystems  
Journal of Water Resources Management  
Journal for Nature Conservation  
Journal of Applied Remote Sensing  
Journal of Electronic Imaging  
Environmental Modelling and Software  
Sensors  
Applied Geomatics  
Acta Geophysica  
International Journal of Low-Carbon Technologies  
Advances in Building Energy Research  
Journal of Industrial Ecology  
Landscape and Urban Planning  
Frontiers of Earth Science  
Solar Energy

## **Reviewer of International Scientific Assessments and Projects**

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- Intergovernmental Panel on Climate Change (IPCC) 6<sup>th</sup> Assessment Report (AR6); Working Group I: Climate Change 2021: The Physical Science Basis  
[https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_AnnexX.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_AnnexX.pdf)
- Reviewer for the progress and results of the First Phase (2022 - 2023) of the Project DISTENDER (Developing STRatEgies by integrating mitigation, aDaptation and participation to climate change Risks), funded by the Framework Program "Horizon Europe" of the European Commission (<https://distender.eu>).
- Member of the Steering Committee for the evaluation of the research project SR/11/405 ONEKANA ('to make visible' in Swahili), funded by BELSPO-STEREO IV (2023-2024) (<https://onekana.ulb.be>).
- Member of the Steering Committee for the evaluation of the research project SR/67/408 SUABE (Surface albedo for Belgian cities), funded by BELSPO-STEREO IV (2023-2024).

## Evaluator of Scientific Proposals

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- National Center of Science of the Technology Evaluation tou Ministry of Education and Science of the Republic of Kazakhstan: Evaluator of research proposals in the domain of space monitoring scientific methods (June 2023).
- National Center of Science of the Technology Evaluation tou Ministry of Education and Science of the Republic of Kazakhstan: Evaluator of research proposals in the domain of space monitoring scientific methods (June 2022).
- National Center of Science of the Technology Evaluation tou Ministry of Education and Science of the Republic of Kazakhstan: Evaluator of research proposals in the domain of space monitoring scientific methods (August 2021).
- Ministry of Defence of the Republic of Kazakhstan: Evaluator of research proposals in the domain of satellite technology (April 2019).
- DLR: Evaluator of research proposals in the framework of AXIS Assessment of Cross-sectoral climate Impacts and pathways for Sustainable transformation Joint Call for Proposals (November 2018).
- National Centre of Science and Technology Evaluation (JSC) of Kazakhstan: Evaluator of research proposals in the domains of information, telecommunication and space technologies and scientific research in the field of natural sciences and Earth's remote sensing (November 2017).
- DLR: Evaluator of research proposals in the framework of ERANETMED (September 2017).
- DLR: Evaluator of research proposals in the framework of ERANETRUS Plus (September 2017).
- Hellenic Foundation for Research and Innovation (HFRI): Evaluator of research proposals in the framework of the 1<sup>st</sup> call for research proposals from Postdoctoral Researchers (August 2017).
- European Research Council (ERC): Evaluator of proposals submitted to the 2017 call of its funding scheme "Starting Grants" (May 2017).
- DLR: Evaluator of research proposals in the framework of ERANETMED (August 2016).
- General Secretariat for Research and Technology: Evaluator of proposals for the action "Business Support for the employment of highly qualified personnel" in the framework of the Operational Programme "Employment and Vocational Training" (October, 2015).
- DLR: Evaluator of research proposals in the framework of ERANETMED (July 2015).
- National Centre of Science and Technology Evaluation (JSC) of Kazakhstan: Evaluator of research proposals in the domains of environment, geography and urban planning (November 2014).
- General Secretariat for Research and Technology: Evaluator of proposals for the action "Business Support for the employment of highly qualified personnel" in the framework of the Operational Programme "Employment and Vocational Training" (April 2014).
- General Secretariat for Research and Technology: Evaluator of proposals for the action "Business Support for the employment of highly qualified personnel" in the framework of the Operational Programme "Employment and Vocational Training" (February 2012).
- State Scholarships Foundation: Evaluator, in the framework of the Operational Programme "Education and Lifelong Learning", of proposals for scholarships from candidate doctors abroad and for candidates for a postgraduate specialization diploma in Greece and abroad, for the academic year 2011-2012 (October 2011).
- Research Promotion Foundation of Cyprus: Evaluators of proposal in the domain of use of Earth Observation and GIS to study the natural environment (Heraklion, 2010).
- Reviewer of the Project "THETIS: Satellite system for the estimation of vessel traffic", funded by the General Secretariat for Research and Technology under the 3<sup>rd</sup> European Support Framework, PEP of West Greece, measure 3.4 (Patras, 2009).
- Cyprus University of Technology: Evaluator of proposal in the domain of use of Earth Observation and GIS to study the natural environment (Limassol, 2008).

## Chairman in Scientific Conferences

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- Finance Chair of the International Geoscience and Remote Sensing Symposium (IGARSS) 2024 (Athens, 2024).
- Symposium Chair of the Joint Urban and Remote Sensing Event (JURSE) 2023, organized by the Foundation for Research and Technology Hellas (Heraklion, 2023).
- Chairman of the Session “Fri1.C Urban climate methods: New observational techniques to study urban climate” of the ICUC11 - 11<sup>th</sup> International Conference on Urban Climate (Sydney, 2023).
- Conference Chair στο “Remote Sensing Technologies and Applications in Urban Environments VIII”, held in the framework of SPIE Sensors + Imaging Symposium (Amsterdam, 2023).
- Conference Chair of “Remote Sensing Technologies and Applications in Urban Environments VII”, held in the framework of SPIE Sensors + Imaging Symposium (Berlin, 2022).
- Chairman of the Session “Urban Planning” of the Remote Sensing Technologies and Applications in Urban Environments VII of SPIE Sensors + Imaging Symposium (Berlin, 2022).
- Chairman of the Session “Artificial Intelligence and Big Earth Data” of the 41<sup>st</sup> EARSeL Symposium on Earth Observation for Environmental Monitoring (Paphos, 2022).
- Chairman of the Session “Climate Change, Circular Economy and Sustainable Development” of the International Conference on changing Cities V, Spatial, Design, Landscape, Heritage & Socio-economic Dimensions (Corfu, 2022).
- Conference Chair of “Remote Sensing Technologies and Applications in Urban Environments VI” held in the framework of SPIE International Symposium on Remote Sensing (Madrid, 2021, on-line).
- Chairman of the Invited Session “Geo-information and integration for Urban Resilience”, στο πλαίσιο του IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2021 (Brussels, 2021, on-line).
- Chairman of the Session “Earth Observation Data Processing for Urban/Built Up Area Characterization”, στο πλαίσιο του IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2021 (Brussels, 2021, on-line).
- Conference Chair of “Remote Sensing Technologies and Applications in Urban Environments V” held in the framework of SPIE International Symposium on Remote Sensing (Edinburg, 2020, on-line).
- Chairman of the Session “Mainstreaming Nature Based Solutions in urban planning policies and decision-making processes (Part I)” of Greening Cities Shaping Cities conference organized by the Polytechnico di Milano (Milan, 2020).
- Conference Chair of “Remote Sensing Technologies and Applications in Urban Environments IV” held in the framework of SPIE International Symposium on Remote Sensing (Strasbourg, 2019).
- Co-chairman of the Session “Technical and practical aspects of Nature Based Solutions in urban areas”, held in the framework of Bucharest Forum on NBS: Re-thinking the nature of cities (Bucharest, 2019).
- Chairman of the Special Session “Urban Climatology” of JURSE 2019: Joint Urban Remote Sensing Event (Vannes, 2019).
- Coordinator of the Plenary Session “Holistic approaches on risk management and resilience”, of the Paris Forum on NBS: Addressing major societal challenges: climate change adaptation-mitigation, risk management and resilience (Paris, 2019).
- Chairman of the Session “Innovative methodologies for monitoring the efficiency of NBS towards climate resilience and disaster risk mitigation”, held in the framework of Paris Forum on NBS: Addressing major societal challenges: climate change adaptation-mitigation, risk management and resilience (Paris, 2019).

- Conference Chair of “Remote Sensing Technologies and Applications in Urban Environments III” held in the framework of SPIE International Symposium on Remote Sensing (Berlin, 2018).
- Chairman of the Session “Urban Air Quality and Climate II” of SPIE International Symposium on Remote Sensing (Berlin, 2018).
- Chairman of the Session “Mapping of the Built Environment I” of SPIE International Symposium on Remote Sensing (Berlin, 2018).
- Coordinator of the Session “Innovative methodologies for continuous monitoring and support of the evaluation of nature based-solutions”, held in the framework of HORIZON2020 European Dialogue and clustering action Transforming cities, enhancing wellbeing: innovating with nature-based solutions (A Coruña, 2018).
- Conference Chair of “Remote Sensing Technologies and Applications in Urban Environments II” held in the framework of SPIE International Symposium on Remote Sensing (Warsaw, 2017).
- Chairman of the Session “Urban Air Quality and Climate II” of SPIE International Symposium on Remote Sensing (Warsaw, 2017).
- Chairman of the Session “Urban Monitoring and Planning I” of SPIE International Symposium on Remote Sensing (Warsaw, 2017).
- Chairman of the Session “Urban Monitoring and Planning III” of SPIE International Symposium on Remote Sensing (Warsaw, 2017).
- Chairman of the Special Session “Urban Climate & Environment” of ISRSE37: 37<sup>th</sup> International Symposium on Remote Sensing of Environment (Tshwane, 2017).
- Chairman of the Special Session “Remote sensing of urban heat fluxes” of JURSE 2017: Joint Urban Remote Sensing Event (Dubai, 2017).
- Conference Chair of “Remote Sensing Technologies and Applications in Urban Environments” held in the framework of SPIE International Symposium on Remote Sensing (Edinburg, 2016).
- Chairman of the Session “Smart Cities” of SPIE International Symposium on Remote Sensing (Edinburg, 2016).
- Chairman of the Session “Urban Morphology and Infrastructures III” of SPIE International Symposium on Remote Sensing (Edinburg, 2016).
- Chairman of the Session “Spectroscopy - Urban Remote Sensing – Mapping” of the RSCy2013: First International Conference on Remote Sensing and Geoinformation of Environment (Paphos, 2013).
- Chairman of the Session “3D Modelling and Urban Applications” of the 9<sup>th</sup> SPIE International Symposium on Remote Sensing (Heraklion, 2002).

## **Member of Scientific Committees in Conferences**

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- Member of the International Scientific Committee of the JURSE 2023: Joint Urban Remote Sensing Event (Heraklion, 2023).
- Member of the International Scientific Committee of RSCy2023: Ninth International Conference on Remote Sensing and Geoinformation of Environment (Ayia Napa, 2023).
- Member of the International Scientific Committee of the SPIE Sensors + Imaging Symposium (Amsterdam, 2023).
- Member of the International Scientific Committee of the SPIE Sensors + Imaging Symposium (Berlin, 2022).
- Member of the International Scientific Committee of the 41st EARSeL Symposium on Earth Observation for Environmental Monitoring (Paphos, 2022).
- Member of the International Scientific Committee of the SPIE International Symposium on Remote Sensing (Madrid, 2021, on-line).

- Member of the International Scientific Committee of the EARSeL Joint Workshop 2021 Earth Observations for sustainable cities and communities (Liege, 2021, on-line).
- Member of the International Scientific Committee of the SPIE International Symposium on Remote Sensing (Edinburg, 2020).
- Member of the International Scientific Committee of the Greening Cities Shaping Cities conference, organized by the Polytecnico di Milano (Milan, 2020).
- Member of the International Scientific Committee of the SPIE International Symposium on Remote Sensing (Strasbourg, 2019).
- Member of the International Scientific Committee of the JURSE 2019: Joint Urban Remote Sensing Event (Vannes, 2019).
- Member of the International Scientific Committee of RSCy2019: Seventh International Conference on Remote Sensing and Geoinformation of Environment (Paphos, 2019).
- Member of the International Scientific Committee of the SPIE International Symposium on Remote Sensing (Berlin, 2018).
- Member of the International Scientific Committee of RSCy2018: Sixth International Conference on Remote Sensing and Geoinformation of Environment (Paphos, 2018).
- Member of the International Scientific Committee of the SPIE International Symposium on Remote Sensing (Warsaw, 2017).
- Member of the International Scientific Committee of the of JURSE 2017: Joint Urban Remote Sensing Event (Dubai, 2017).
- Member of the International Scientific Committee of RSCy2017: Fifth International Conference on Remote Sensing and Geoinformation of Environment (Paphos, 2017).
- Member of the International Scientific Committee of the SPIE International Symposium on Remote Sensing (Edinburg, 2016).
- Member of the International Scientific Committee of the Third International Conference on Remote Sensing and Geoinformation of Environment (Paphos, 2015).
- Member of the International Scientific Committee of the Second International Conference on Remote Sensing and Geoinformation of Environment (Paphos, 2014).
- Co-organizer of a symposium on “Modelling and Computations in Atmospheric Sciences” in the framework of the “International Conference on Applied Mathematics” (Heraklion 2013).
- Member of the International Scientific Committee of the First International Conference on Remote Sensing and Geoinformation of Environment (Paphos, 2013).
- Member of the Organizing Committee of the BRIDGE Sustainable urban Planning Conference (Brussels, 2011).
- Member of the Scientific Committee of the International Conference EUROMED2010: Digital Heritage, organized by the Cyprus University of Technology (Limassol, 2010).
- Member of the Organizing Committee of the 3<sup>rd</sup> International Conference PALENC2010: Passive & Low Energy Cooling for the Built Environment (Rhodes, 2010).
- Member of the Jury Committee of the 8<sup>th</sup> Hellenic Geographical Conference organized by University of Athens (Athens, 2007).
- Member of the Jury Committee of the IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2007 (Barcelona, 2007).
- Member of the Scientific Committee of the 19<sup>th</sup> Enviroinfo: International Conference Informatics for Environmental Protection (Brno, 2005).
- Member of the Organizing Committee of the 3<sup>rd</sup> Symposium of the Hellenic Association of GIS, supporting also the preparation of the CD-ROM of Proceedings (Athens, 2004).
- Member of the Organizing Committee of the AGILE2004 (7<sup>th</sup> International Conference on Geographic Information Science), organized by FORTH (Heraklion, 2004).
- Member of the Scientific Committee of COST719 International Symposium on GIS and Remote Sensing for Environmental Applications (Volos, 2003).

## Administrative Activities

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- Head of the "Earth Observation Research and Applications in Urban and Natural Environment" Laboratory of the Institute of Applied and Computational Mathematics of FORTH (<http://rslab.gr>).
- Official Delegate to the General Assembly of the European Research Infrastructure ICOS (Integrated Carbon Observation System), appointed by the Ministry of Environment and Energy.
- Member of the Expert Committee of the Network of Regions and Municipalities for Climate Change - CLIMATTICA (2023).
- Member of a Faculty Election Committee in the School of Rural, Surveying and Geoinformatics Engineering of the National Technical University of Athens (2023).
- Member of the Board of Directors of the "ERATOSTHENES: Excellence Research Centre for Earth Surveillance and Space-Based Monitoring of the Environment" of the Cyprus University of Technology (<https://excelsior2020.eu>).
- Chairman of the Scientific Council of the Institute of Applied and Computational Mathematics of FORTH (2016 - 2018).
- Member of the Advisory Board of the project LIFE NewLife4Drylands (2021 - ).
- Member of the Climate Change Working Group of the Group of Earth Observations (GEO) (2020 - ).
- Member of the Program Board Urban Resilience Subgroup of the Group of Earth Observations (GEO) (2020 - 2022).
- Member of the Evaluation Committee for the election of a Researcher of the Institute of Applied and Computational Mathematics of FORTH (2022).
- Member of the Working Group supporting the Department of the Environment of the Region of Crete in monitoring the Regional Climate Change Adaptation Plan of Crete (2020 - 2022).
- Member of the Election Committee for the position of the Director of the Institute of Applied and Computational Mathematics of FORTH (2021).
- Member of a Faculty Election Committee in the Department of Forestry and Management of the Environment and Natural Resources of the Democritus University of Thrace (2021).
- Member of a Faculty Election Committee in the Department of Geology of the Aristotle University of Thessaloniki (2021).
- Member of the Evaluation Committee for the election of a Researcher of the Institute of Applied and Computational Mathematics of FORTH (2021).
- Member of the Evaluation Committee for the election of a Researcher of the Information Technologies Institute of the Centre of Research and Technology Hellas (CERTH) (2020).
- Member of the Editorial Board of the for "Urban Remote Sensing" Special Issue of the Remote Sensing Journal - [https://www.mdpi.com/journal/remotesensing/sectioneditors/urban\\_remote\\_sensing](https://www.mdpi.com/journal/remotesensing/sectioneditors/urban_remote_sensing) (2019 - )
- Chairman of the EuroGEOSS Action Group "Urban Applications for Resilience" (2018 - )
- Member of the Evaluation Committee for the election of a Researcher of the Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing of the National Observatory of Athens (2018).
- Deputy member of the Election Committee for the position of the Director of the Institute of Astrophysics of FORTH (2018).
- FORTH Delegate at the Observatory of Environment and Public Health of the Municipality of Heraklion (2018 - ).
- Representative of the Institute of Applied and Computational Mathematics of FORTH to a Committee of the General Secretariat of the Greek Government on the participation of the Research Community in the promotion of Sustainable Development Goals; contributing to the Voluntary National Review on the Implementation of 2030 Agenda of the UN for Sustainable Development (2018).
- Member of the Evaluation Committee for the promotion of a Researcher of the Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing of the National Observatory of Athens (2018).
- Deputy member of a Faculty Election Committee in the Department of Geology of the Aristotle University of Thessaloniki (2018).



- Deputy member of a Faculty Election Committee in the Department of Forestry and Management of the Environment and Natural Resources of the Democritus University of Thrace (2018).
- Member of the Jury for the Research Prize of FORTH (2017).
- Member of a Faculty Election Committee in the Department of Geology of the Aristotle University of Thessaloniki (2017).
- Member of a Faculty Election Committee in the Department of Department of Forestry and Natural Environment of the Aristotle University of Thessaloniki (2017).
- Member of a Faculty Election Committee in the Department of Forestry and Management of the Environment and Natural Resources of the Democritus University of Thrace (2017).
- Member of the Evaluation Committee for the promotion of a Researcher of the Institute of Mediterranean Studies of FORTH (2017).
- Member of the Election Committee for the position of the Director of the Institute of Applied and Computational Mathematics of FORTH (2016).
- Elected member of the Scientific Council of the Institute of Applied and Computational Mathematics of FORTH (J2014 - 2016).
- Member of the Personnel Evaluation Committee of the Institute of Applied and Computational Mathematica of FORTH (2016).
- Member of the Personnel Evaluation Committee of the Institute of Applied and Computational Mathematica of FORTH (2013).

## Other Activities

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- Presentation in the Newspaper "Eleytherotypia" of the use of FORTH satellite ground receiving station for the near real time detection and monitoring of the toxic plumes caused by the bombing in Bagdad in April 2003 (12/4/2003).
- Participation in a Workshop organized by Environmental Modelling Group of ERCIM (Heraklion, 2004).
- Participation in INTERREG III C Workshop on Management and Development of islands (Heraklion, 2004).
- Participation in European Space Agency Workshops on "GMES: Global Monitoring for Environment and Security" (Athens, 2002) and on "How to Do Business with ESA" (Athens, 2004), as well as on "Space Industry" (Athens, 2004).
- Participation in the Consultation Meeting for the Work Programme 2005-06 of the Strategic Objective "Improving Risk Management" of IST (Brussels, 2004).
- Publication in SPIE Newsroom (<http://spie.org/x1004.xml>) of the article: *N. Chrysoulakis, H. Feidas, and M. Abrams, 2006. Digital elevation models generated from multispectral stereo satellite imagery (SPIE, 2006).*
- Participation in the Summer School Alpbach 2006: "Monitoring of Natural Hazards from Space". Member of the design team of the satellite mission MOSART: Monitoring of Surface Deformation in Active Tectonic Zones (Alpbach, 2006).
- Member of the working group that prepared the description document of the Greek Technology and Science Initiatives (GTSI) for Space (Athens, 2007)
- Advisor for a stage at FORTH of the PhD candidate C. Alecu from the National Meteorological Service of Romania; topic: "Thermal infrared satellite signal retrieving as land surface temperature related to different land use/land cover units", (Heraklion, 2007).
- Speaker in the 8<sup>th</sup> FORTH Workshop (Rethymno, 2007).
- Publication (with Prof. C. Cartalis) of an article in the Newspaper "Eleftherotypia" on the monitoring of the urban sprawl of Athens during the last 30 years (22/6/2008).
- Publication in ERCIM News of the article: *Flouri, E., Mitsoudis, D., Chrysoulakis, N., Diamandakis, E., Dougalis, V. A. and C. E. Synolakis, 2010. Mathematical Modelling of Tsunami Waves.* ERCIM News Special Theme: Computational Science/Scientific Computing Simulation & Modelling for Research and Industry (ERCIM, 2010).

- Participation in the FP7 Brokerage Event on “Marine Research Capacities in a global context” (Istanbul, 2010).
- Member of the Scientific Team of the Centre for Renewable Energy Sources developed guidelines on bioclimatic rehabilitation studies for open public spaces (April – July, 2011).
- Interviewed by the financial/business magazine “Hv-Ωv” on the innovative urban planning and design (April, 2011).
- Key speaker in the Information Day of the program “Bioclimatic rehabilitation of open public spaces”, held in Heraklion and interviewed on local media (Heraklion, 2010).
- Participation in the Coordinators Meeting, organized by DG-Research (Brussels, 2011).
- Presentation in the Newspaper “To Vima” of the results of a study on the land surface changes in the Municipalities of Attica, during the last 30 years, based on satellite observations (4/8/2011).
- Presentation of the GEOURBAN project in Russian Urban planning management (Управление развитием территории) journal, Issue 1, pp. 54 – 58 (Omsk, 2013).
- Rapporteur at Session “Community-based approached to Environmental Management” in the framework of workshop on “Fostering innovative dialogue between researchers and stakeholders to meet future challenges: Land, Soil, Desertification, Urban and Community-Based Environmental Management” (Brussels, 2013).
- Presentation of the BRIDGE Project in European Commission DG Environment News Alert Service ‘Science for Environmental Policy’, issue 334 (June 2013), as well as in FORTH Newsletter, Vol. 06 (August 2013).
- Speaker in the 11<sup>th</sup> Scientific Retreat of FORTH. Talk on “Urban Remote Sensing, recent projects and future prospects” (Heraklion, 2013).
- Speaker in the workshop on “REmote Sensing Technologies in Cultural Heritage”, organized by the Institute of Mediterranean Studies of FORTH. Talk on: “Earth Observation contribution to surface parameterization in atmospheric modelling” (Rethymnon, 2014).
- Participation in the international Symposium on “Copernicus- Sentinels Serving Society and the Environment”, jointly organized by the Hellenic Presidency of the Council of the European Union, the European Space Agency and the European Commission (Athens, 2014).
- Member of the Editorial Board of the Book: Understanding Urban Metabolism: A Tool for Urban Planning. Nektarios Chrysoulakis, Eduardo Castro and Eddy Moors (Eds). Routledge, Taylor & Francis ISBN 978-0-415-83511-4 (August 2014).
- Participation in the workshop “Nature Based Solutions and Renaturing Cities”, organized by DG-Research in Brussels, as an on-going multi-stakeholder dialogue which aims at contributing to developing a Research & Innovation agenda (2014 - 2020) on Nature-Based Solutions (December 2014).
- Participation in workshop on networking of the Greek Space Industry organized by the General Secretariat for Research and Technology, the Hellenic Space Technologies and Applications Cluster (si-Cluster), the Hellenic Association of Space Industry and the “Corallia” Unit of the Athena Research and Innovation Centre. Presentation of the relevant to Space - Earth Observation activities of the Institute of Applied and Computational Mathematics of FORTH (Athens, 2015).
- Participation in the 4<sup>th</sup> International Meeting of the EarthTemp Network on the theme of “exploring the complexity of urban surface temperatures”, organized by the University of Reading. Presentation of the URBANFLUXES Project (Reading, 2015).
- Participation in the 3<sup>rd</sup> GLOBTEMPERATURE Consultation Meeting, organized by the European Space Agency and the University of Reading Presentation of the URBANFLUXES Project (Reading, 2015).
- Interviewed by “International Innovation” on “Earth Observation for Urban Climate” <http://www.internationalinnovation.com/earth-observation-for-urban-climate/> (September 2015).
- Member of the EnCeladus hellenic Supersite, included in Geohazard Supersites and Natural Laboratories (GSNL) of Group of Earth Observations (GEO), <http://www.earthobservations.org/gsnl.php> (Νοέμβριος 2016).
- Host of the ECOPOTENTIAL General Assembly (May, 2017).

- Publication of the article “Copernicus Sentinels for urban planning: The SEN4RUS Project” in the Bulletin of the Hellenic Association of Rural & Surveying Engineers, Issue 232 (May 2017).
- Participation to the First Policy Workshop “From R&I Projects to EU Policies: Sustainable cities through nature-based solutions” and II Clustering Event, organized by the Directorate-General for Research and Innovation of the European Commission in Brussels (June 2017).
- Interviewed by “Skai Kritis” radio on the Urban Energy Balance in the city of Heraklion, the micrometeorological observations of FORTH and the local heat emission sources (February 2018).
- Presentation of the project URBANFLUXES, as a “Futuris” series episode by Euronews, <http://www.euronews.com/2018/03/05/heat-produced-in-our-cities-is-affecting-human-mortality> (March 2018).
- Interviewed by the local “TV-Creta” on the URBANFLUXES results, with emphasis on the city of Heraklion (March 2018).
- Interviewed by the local “Kriti-TV” on the Observatory of Environment and Public Health in the area of Heraklion (April 2018).
- Publication of the project URBANFLUXES - Result In Brief by the Community Research and Development Service (CORDIS) of the European Commission, [https://cordis.europa.eu/result/rcn/229057\\_en.html](https://cordis.europa.eu/result/rcn/229057_en.html) (May 2018).
- Participation to the practical conference “Urban Planning and Management, Environment quality and Entrepreneurial Climate” organized by GRAD Inform; presentation of SEN4RUS and URBANFLUXES projects (Omsk, 2018).
- Rapporteur of the Session “Benefits of ecosystem restoration”, held in the framework of HORIZON2020 European Dialogue and clustering action Transforming cities, enhancing wellbeing: innovating with nature-based solutions (A Coruña, 2018).
- Participation to the workshop on the EuroGEOSS initiative, the European component of GEOSS (Global Earth Observation Systems of Systems), organized by the Directorate-General for Research and Innovation of the European Commission in Brussels. Submission of an Expression of Intent for the urban component of EuroGEOSS (June 2018).
- Participation to the Mediterranean Regional Information Network (MedRIN) of NASA, aiming to serve as a liaison between land cover/use change remote sensing scientists and stakeholders in the Mediterranean region, as well as to support tackling regional and local challenges, as described by the United Nations’ Sustainable Development Goals (July 2018).
- Interviewed by the local “Kriti-TV” on the potential of satellite remote sensing in monitoring of urban and natural environment, in the framework of 38<sup>th</sup> Annual EARSeL Symposium: “Earth Observation Supporting Sustainability Research”, held in Chania (July 2018).
- Interviewed by the newspaper “Nea Kriti” on the potential of satellite remote sensing to support the mitigation of natural hazards, as well as the damage assessment (July 2018).
- Presentation by the newspaper “Nea Kriti” of the Thermal Infrared UAV campaign that was organized by FORTH and Norwegian University of Life Sciences (NMBU) in Heraklion (July 2018).
- Interviewed by the local “Kriti-TV” on the of the Thermal Infrared UAV campaign that was organized by FORTH and NMBU in Heraklion (July 2018).
- Interviewed by the local “TV-Creta” on the of the Thermal Infrared UAV campaign that was organized by FORTH and NMBU in Heraklion (July 2018).
- Interviewed by the local “TV-Creta” on the burnt area mapping that was produced by the Remote Sensing Lab, after the recent wild fires in the areas of Attica and Chania (August 2018).
- Participation to the EuroGEOSS Workshop, held in Geneva (September 2018).
- Presentation by the newspaper “Naytemporiki” of the important researching activities of the Remote Sensing Lab related to urban environment, urban warming, climate and climate change at local and global scales, as well as to mapping of land and coastal marine ecosystems (October 2018).

- Participation to Climathon Heraklion “Together we can make Heraklion and the world a better place to live!” organized by FORTH, Municipality of Heraklion and Climate-KIC in Heraklion. Presentation on: “Urban Climate and Climate Change” (October 2018).
- Participation to the Copernicus for Future Cities Workshop, organized by DG-GROE in Brussels. Presentation entitled: “Earth Observation for urban energy exchanges monitoring at local scale” (November 2018).
- Participation to the HORIZON2020 Space Information Day & Brokerage Event held in Berlin. Presentation of an H2020 project idea on “CURE – Copernicus for Urban Resilience in Europe” (November 2018).
- Presentation by the newspaper “Patris” of the monitoring of the dynamics of dams in Crete; article entitled: “The satellites show completely filled dams in Crete” (January 2019).
- Participation to a Workshop on Nature Based Solutions, organized by the Region of Crete in Heraklion. Presentation entitled: “Innovative methodologies and tools for monitoring and support of the evaluation of Nature Based Solutions” (May 2019).
- Interviewed by the local “Notos-TV” on the Activities of the Remote Sensing Lab (June 2019).
- Interviewed by the local “Nea-Tileorasi” on the Climate Change Mitigation Activities in Heraklion (July 2019).
- Participation to the EuroGEOSS Workshop, held in Lisbon (July 2019).
- Presentation by the newspaper “Patris” of the new H2020-Space project CURE (Copernicus for Urban Resilience in Europe), coordinated by FORTH (July 2019).
- Interviewed by the “ERT National Radio at Chania” on the idea of the new H2020-Space project CURE (Copernicus for Urban Resilience in Europe), coordinated by FORTH (August 2019).
- Interviewed by the local “TV-Creta” on the idea of the new H2020-Space project CURE (Copernicus for Urban Resilience in Europe), coordinated by FORTH (August 2019).
- Speaker in the ThinkNature Summer School: Nature Based Solutions - from Theory to Practice, organized by the Technical University of Crete in Chania. Presentation entitled: “Monitoring Technologies of Nature Based Solutions” (September 2019).
- Participation to the “Scaling-up Challenge Session” workshop, co-organised by DG RTD and EASME in Thessaloniki, in the framework of ENoLL OpenLivingLab Days “Co-creating innovation: scaling up from Local to Global” (September 2019).
- Presentation by the newspaper “Patris” of the new ERC Synergy project *urbisphere* - coupling dynamic cities and climate, for which FORTH has the role of the corresponded Host Institute (October 2019).
- Presentation by the newspaper “Nea Kriti” of the new ERC Synergy project *urbisphere* - coupling dynamic cities and climate, for which FORTH has the role of the corresponded Host Institute (October 2019).
- Presentation by the newspaper “Chaniotika Nea” of the new ERC Synergy project *urbisphere* - coupling dynamic cities and climate, for which FORTH has the role of the corresponded Host Institute (October 2019).
- Interviewed by the “ERT National Radio at Heraklion” on the idea of the new ERC Synergy project *urbisphere* - coupling dynamic cities and climate, for which FORTH has the role of the corresponded Host Institute (October 2019).
- Interviewed by the local “TV-Creta” on the new European Research Council (ERC) Synergy project *urbisphere* - coupling dynamic cities and climate, for which FORTH has the role of the corresponded Host Institute (October 2019).
- Presentation by the newspaper “Patris” of the new Nature Based Solutions Handbook that was developed in the framework of the H2020 project Think Nature (October 2019).
- Presentation by the newspaper “Kathimerini” of the interactions and feedbacks of cities and climate change, <https://www.kathimerini.gr/1050612/article/epikairothta/ellada/klimatikh-allagh-kai-mega-poleis-h-allhlepidrash-toy-mellontos> (November 2019).
- Interviewed by the “Athina 9,84” Radio on the idea of the new ERC Synergy project *urbisphere* - coupling dynamic cities and climate, for which FORTH has the role of the corresponded Host Institute (November 2019).

- Presentation by the newspaper "Patris" of the reduction of CO<sub>2</sub> emissions in Heraklion, measured by the flux tower of the Remote Sensing Lab, during the first lock-down due to COVID-19 (May 2020).
- Publication on the ICOS official website (<https://www.icos-cp.eu/event/933>) of the first results of a European study, indicated a substantial reduction of CO<sub>2</sub> emissions in various cities, during the first lock-down due to COVID-19 (May 2020).
- Presentation by the newspaper "Patris" of the publication on the ICOS on the reduction of CO<sub>2</sub> emissions in various European cities, during the first lock-down due to COVID-19 (May 2020).
- Interviewed by the local "TV-Creta" on the reduction of CO<sub>2</sub> emissions in various European cities, during the first lock-down due to COVID-19 (May 2020).
- Presentation by the newspaper "Kathimerini" of the publication on the ICOS on the reduction of CO<sub>2</sub> emissions in various European cities, during the first lock-down due to COVID-19 (May 2020).
- Interviewed by "Skai Kritis" radio regarding the contract that was given by the Municipality of Heraklion for the monitoring of CO<sub>2</sub> emissions from the city center (June 2020).
- Interviewed by the local channel "Kriti-TV" regarding the contract that was given by the Region of Crete for the exploitation of satellite imagery for burnt area mapping in case of forest fires (June 2020).
- Interviewed by the local "TV-Creta" on the contract that was given by the Municipality of Heraklion for the monitoring of CO<sub>2</sub> emissions from the city center (June 2020).
- Presentation by the newspaper "Patris" of the cooperation between FORTH and Municipality of Heraklion for operational monitoring of CO<sub>2</sub> emissions at the city centre (June 2020).
- Presentation by the newspaper "Patris" of the cooperation between FORTH and Region of Crete for burnt area mapping in case of forest fires using satellite imagery for (June 2020).
- Interviewed on the internet radio "LiveTalks" about a talk that was given on the prospects of the Remote Sensing Lab, in the context of a visit of the President of the Committee "Greece 2021" Ms. Gianna Angelopoulos-Daskalaki in Heraklion (August 2020).
- Creation of a video presenting the activities of the Remote Sensing Lab (<https://youtu.be/N1KJqVSX7sg>), in the frame of the European Researcher Night 2020 that was held on-line (November 2020).
- Presentation by the newspaper "Patris" of the announcement for the supply of UAV with hyperspectral camera by the Remote Sensing Lab in the framework of the ERC-SyG *urbisphere* project (April 2021).
- Presentation by the newspaper "Kathimerini" of the Flux Towers infrastructure of the Remote Sensing Lab in the city of Heraklion and their potential in the study of climate change (April 2021).
- Interviewed by the local channel "Kriti-TV" regarding the deployment of the second Flux Tower of the Remote Sensing Lab in the city of Heraklion and their potential of monitoring CO<sub>2</sub> emissions in residential areas (April 2021).
- Interviewed by the local channel "TV-Creta" on the deployment of the second Flux Tower of the Remote Sensing Lab in the city of Heraklion and their potential of monitoring CO<sub>2</sub> emissions in residential areas (April 2021).
- Presentation by the newspaper "Patris" of the Flux Towers infrastructure of the Remote Sensing Lab in the city of Heraklion and their potential in the study of climate change (April 2021).
- Interviewed by the local channel "Kriti-TV" about the exploitation of the drone of the Remote Sensing Lab in thermal mapping of the high temperatures of the urban surface in the city of Heraklion during a heat wave event (August 2021).
- Presentation by the newspaper "Patris" of the monitoring air temperature evolution in the city of Heraklion at neighbourhood scale, based on SUEWS model simulations combined with the measurements of the wireless network of meteorological stations of the Remote Sensing Lab, during a heat wave event, as well as of the mapping of the burned area by the wild fires in the area of Varybombi in Attica, based on satellite observations (August 2021).

- Creation of a video presenting the activities of the Remote Sensing Lab (<https://www.youtube.com/watch?v=LZD31pYNwPY>), in the frame of the European Mobility Week 2021, that was organized in the city of Heraklion by the Municipality of Heraklion (September 2021).
- Participation to the EuroGEO Workshop that was held on-line; demonstration of the Portal developed in the frame of the H2020 project CURE (Copernicus For Urban Resilience In Europe) in the Session “Advances made in EuroGEO to deliver user-oriented solutions” (September 2021).
- Presentation by the newspaper "Patris" of the publication on urban water storage capacity inferred from flux tower observations in Heraklion (February 2022).
- Presentation by the newspaper "Patris" of the mapping of the burned area by the wild fires in the area of Rethymnon, based on satellite observations (July 2022).
- Speaker in the 13<sup>th</sup> Scientific Retreat of FORTH. Talk on “Earth Observation for Urban Climate and Resilience” (July 2022).
- Organization of a double (14/10 and 17/10) demonstration event for the CURE System in Brussels, with the participation of representatives from DG-DEFIS, DG-RTD, DG-ENV, DG-REGIO, EEA, ECMWF, URBACT, ESPON, Climate-KIC και EARSC, as well as from EU Cities Mission and EU Adaptation Mission Boards (October 2022).
- Participation to the EuroGEO Workshop, held in Athens, chairing the EuroGEO Urban Action Group (December 2022).
- Interviewed by “Skai Kritis” radio regarding the Joint Urban and Remote Sensing Event (JURSE) 2023, organized by the Foundation for Research and Technology Hellas at the Cultural Conference Center of Heraklion (May 2023).
- Presentation by the Athens-Macedonian News Agency of the activities of the Remote Sensing Laboratory related to monitoring the impact of interventions, aiming at both mitigation and adaptation to climate change in the city of Heraklion (September 2023).
- Participation to the EuroGEO Workshop, held in Bolzano, chairing the EuroGEO Urban Action Group (October 2023).
- Participation to the GEO Week and Ministerial Summit, held in Cape Town, as a speaker in the Pannel Session “The City Talks - HARMONIA solutions & potential synergies in urban domain among GEO Community” (November 2023).

## ***Editor of Books, Journals and Conference Proceedings***

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- A1. **Chrysoulakis N.**, Somarakis, G., Taubenböck, H., Kuffer, M., and Mallet, C., (Guest Eds.), 2023. Exploring the Potential of Urban Remote Sensing. A special issue of *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. [https://www.grss-ieee.org/wp-content/uploads/2023/03/cfp\\_JURSE23\\_revised.pdf](https://www.grss-ieee.org/wp-content/uploads/2023/03/cfp_JURSE23_revised.pdf)
- A2. **Chrysoulakis, N.** and Somarakis, G. (Eds.), 2023. Proceedings of the Joint Urban & Remote Sensing Event (JURSE) 2023. IEEE Xplore. doi: 10.1109/JURSE57346.2023
- A3. Babi Almenar, J., Marando, F., Vallecillo, S., Zulian, G., Cortinovis, C., Zurbaran-Nucci, M., **Chrysoulakis, N.**, Parastatidis, D., Heris, M. and Grammatikopoulou, I., 2023. Urban Ecosystem accounts following the SEEA EA standard: A pilot application in Europe. JRC Technical Report on an Integrated System for Natural Capital Accounting in the EU (INCA). JRC133240, EUR 31529 EN. ISSN 1831-9424.
- A4. Erbertseder, T., **Chrysoulakis, N.** and Zhang, Y. (Eds.), 2022. Remote Sensing Technologies and Applications in Urban Environments VII. Proceedings Volumes from SPIE Remote Sensing. Proc. of SPIE Vol. 12269, © 2022 SPIE.
- A5. Erbertseder, T., **Chrysoulakis, N.** and Zhang, Y. (Eds.), 2021. Remote Sensing Technologies and Applications in Urban Environments VI. Proceedings Volumes from SPIE Remote Sensing. Proc. of SPIE Vol. 11864, © 2021 SPIE.
- A6. Erbertseder, T., **Chrysoulakis, N.** and Zhang, Y. (Eds.), 2020. Remote Sensing Technologies and Applications in Urban Environments V. Proceedings Volumes from SPIE Remote Sensing. Proc. of SPIE Vol. 11535, © 2020 SPIE.
- A7. Somarakis, G., Stagakis, S. and **Chrysoulakis, N.** (Eds.), 2019. Thinknature Nature-Based Solutions Handbook. ThinkNature project funded by the EU H2020 research & innovation programme (<https://doi.org/10.26225/jerv-w202>)
- A8. Erbertseder, T., **Chrysoulakis, N.** and Zhang, Y. (Eds.), 2019. Remote Sensing Technologies and Applications in Urban Environments IV. Proceedings Volumes from SPIE Remote Sensing. Proc. of SPIE Vol. 11157, © 2019 SPIE.
- A9. **Chrysoulakis N.** and Parlow, E. (Guest Eds.), 2019. Remote Sensing of Urban Energy and CO<sub>2</sub> Fluxes. A special issue of *Remote Sensing*. Section: Land Surface Fluxes. [http://www.mdpi.com/journal/remotesensing/special\\_issues/urban\\_energy](http://www.mdpi.com/journal/remotesensing/special_issues/urban_energy)
- A10. Erbertseder, T., **Chrysoulakis, N.** and Zhang, Y. (Eds.), 2018. Remote Sensing Technologies and Applications in Urban Environments III. Proceedings Volumes from SPIE Remote Sensing. Proc. of SPIE Vol. 10793, © 2018 SPIE.
- A11. Erbertseder, T., **Chrysoulakis, N.**, Zhang, Y. and Heldens, W. (Eds.), 2017. Remote Sensing Technologies and Applications in Urban Environments II. Proceedings Volumes from SPIE Remote Sensing. Proc. of SPIE Vol. 10431, © 2017 SPIE · CCC code: 0277-786X/17/\$18.
- A12. Erbertseder, T., Esch, T. and **Chrysoulakis, N.**, (Eds.), 2016. Remote Sensing Technologies and Applications in Urban Environments. Proceedings Volumes from SPIE Remote Sensing. Proc. of SPIE Vol. 10008, © 2016 SPIE · CCC code: 0277-786X/16/\$18.
- A13. **Chrysoulakis, N.**, Castro, E. A. and Moors, E. J. (Eds.), 2015. Understanding Urban Metabolism: A Tool for Urban Planning. Routledge, Taylor & Francis, London. ISBN 9780415835114.

## Book Chapters

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- B1. Goni, E., Van Rompaey, S., De Luca, C., Mink, F., Stagakis, S., **Chrysoulakis, N.** and Lehvavirta, S., 2019. Technical Innovation. In: Somarakis, G., Stagakis, S. and Chrysoulakis, N. (Eds.). Thinknature Nature-Based Solutions Handbook, pp. 101 - 121.
- B2. Somarakis, G., Stagakis, S., Lemaitre, F., Nikolaidis, N., Lilli, M. and Chrysoulakis, N., 2019. Recommendations for NBS uptake. In: Somarakis, G., Stagakis, S. and Chrysoulakis, N. (Eds.). Thinknature Nature-Based Solutions Handbook, pp. 175 - 182.
- B3. Mitraka, Z. and **Chrysoulakis, N.**, 2018. Earth Observation for Urban Climate Monitoring: Surface Cover and Land Surface Temperature. In: Rustamov, R. B., Hasanova, S., Zeynalova M.H (Eds). Multi-purposeful Application of Geospatial Data. Chapter 7. InTech., pp. 125 - 145.
- B4. Poursanidis, D., Barnias, A., Lymberakis, P., Giamberini, M. and **Chrysoulakis, N.**, 2018. Copernicus Sentinel data for local scale conservation activities. In: European Commission, ESA and NEREUS joint publication “The ever growing use of Copernicus across Europe’s regions. A selection of 99 user stories by local and regional authorities”, pp. 116 - 117.
- B5. Traganos, D., Reinartz, P., Poursanidis, D. and **Chrysoulakis, N.**, 2018. Making Seagrass great again. In: European Commission, ESA and NEREUS joint publication “The ever growing use of Copernicus across Europe’s regions. A selection of 99 user stories by local and regional authorities”, pp. 128 - 129.
- B6. Landier, L., Lauret, N., Yin, T., Al Bitar, A., Gastellu-Etchegorry, J-P., Feigenwinter, C., Parlow, E., Mitraka, Z. and **Chrysoulakis, N.**, 2016. Remote Sensing Studies of Urban Canopies: 3D Radiative Transfer Modelling. In: Ergen, M. (Ed.), 2016. Sustainable Urbanization. Environmental Sciences. InTech, Rijeka, Croatia. ISBN 978-953-51-2653-9, pp. 227 - 247.
- B7. **Chrysoulakis, N.** and Grimmond, C.S.B., 2016. Understanding and reducing the anthropogenic heat emission. In: Santamouris, M. and Kolokotsa, D. (Eds.), 2016. Urban Climate Mitigation Techniques. Routledge, Taylor & Francis, London. ISBN 978-0-415-71213-2, pp. 27 - 39.
- B8. **Chrysoulakis, N.**, Feigenwinter, C., Triantakostas, D., Penyeyskiy, I., Tal, A., Parlow, E., Fleishman, G., Düzgün, S., Esch, T. and Marconcini, M., 2016. A Conceptual List of Indicators for Urban Planning and Management Based on Earth Observation. In: Etingoff, K. (Ed.), 2016. Urban Ecology. Strategies for Green Infrastructure and Land Use. Apple Academic Press, Inc., Oakville, Canada. ISBN-13: 978-1-77188-282-8, pp. 285 - 313.
- B9. **Chrysoulakis, N.**, 2015. The BRIDGE approach. In: Chrysoulakis, N., Castro, E. A. and Moors, E. J. (Eds.), 2015. Understanding Urban Metabolism: A Tool for Urban Planning. Routledge, Taylor & Francis, London. ISBN 9780415835114, pp. 18 - 26.
- B10. Cartalis, C., Stathopoulou, M., Mitraka, Z. and **Chrysoulakis, N.**, 2015. Use of Earth Observation to support urban modelling parameterization in BRIDGE. In: Chrysoulakis, N., Castro, E. A. and Moors, E. J. (Eds.), 2015. Understanding Urban Metabolism: A Tool for Urban Planning. Routledge, Taylor & Francis, London. ISBN 9780415835114, pp. 58 - 68.
- B11. Mitraka, Z., Diamantakis, M. and **Chrysoulakis, N.**, 2015. The BRIDGE DSS. In: Chrysoulakis, N., Castro, E. A. and Moors, E. J. (Eds.), 2015. Understanding Urban Metabolism: A Tool for Urban Planning. Routledge, Taylor & Francis, London. ISBN 9780415835114, pp. 175 - 184.
- B12. **Chrysoulakis, N.**, Castro, E. A. and Moors, E. J. (Eds.), 2015. Conclusions. In: Chrysoulakis, N., Castro, E. A. and Moors, E. J. (Eds.), 2015. Understanding Urban Metabolism: A Tool for Urban Planning. Routledge, Taylor & Francis, London. ISBN 9780415835114, pp. 209 - 212.



- B13. Mitraka, Z. and **Chrysoulakis, N.**, 2012. Satellite based estimation of urban surface emissivity with the use of sub-pixel classification techniques. In: C.G. Helmis and P.T. Nastos (eds.): *Advances in Meteorology, Climatology and Atmospheric Physics*, Springer Atmospheric Sciences., Springer-Verlag, Berlin Heidelberg (doi: 10.1007/978-3-642-29172-2\_127), pp. 231 - 237.
- B14. Benas, N. and **Chrysoulakis, N.**, 2012. Comparative analysis of MERIS/AATSR synergy algorithm aerosol retrievals vs. MODIS aerosol product and validation against AERONET observations. In: C.G. Helmis and P.T. Nastos (eds.): *Advances in Meteorology, Climatology and Atmospheric Physics*, Springer Atmospheric Sciences., Springer-Verlag, Berlin Heidelberg (doi: 10.1007/978-3-642-29172-2\_127), pp. 911 - 916.
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- E14. Nicolini, G., Christen, A., Ciais, P., Feigenwinter, C., Gioli, B., Helfter, C., Matthews, B., Meier, F., Stagakis, S., Steeneveld, G.-J., Velasco, E., Vogt, R., Ward, H. C., Antoniella, G., Barlow, J. F., Carotenuto, F., **Chrysoulakis, N.**, Duce, P., Graus, M., Heusinkveld, B. G., Järvi, L., Jasek-Kaminska, A., Karl, T., Marras, S., Masson, V., Nemitz, E., Politakos, K., Sabbatini, S., Scherer, D., Schume, H., Sirca, C., Vagnoli, C., Wang, Y., Zaldei, A., Zheng, B., Zimnoch, M. Papale, D., 2022. Tracking Changes in CO<sub>2</sub> Urban Emissions at Neighbourhoods Scale During the COVID-19 Waves Series and Beyond. Abstract GC32B-03; Session: Global Environmental Change - Advances in Urban Climate and Biogeochemistry. American Geophysical Union (AGU) Fall Meeting 2022, Chicago, 12 - 16 December.
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