



## Polychronis (Pol) Kolokoussis

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<https://www.linkedin.com/in/pol-kolokoussis-03a71a57/> | **ORCID:**

<https://orcid.org/0000-0002-5420-0900> | **Scopus:**

<https://www.scopus.com/authid/detail.uri?authorId=54405865200> | **WoS:**

<https://www.webofscience.com/wos/author/record/AAL-6030-2021> | **Google**

**Scholar:** <https://scholar.google.it/citations?hl=it&pli=1&user=lyklmT8AAAAJ> | **Resear**

**chGate:** <https://www.researchgate.net/profile/Polychronis-Kolokoussis> |

**Address:** Ikoniou 76 Str, N. Smirni, 17123, Athens, Greece (Home)

### ● ABOUT ME

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I am a research collaborator and a member of the teaching staff of the Remote Sensing Laboratory, School of Rural, Surveying and Geoinformatics Engineering, NTUA. I also have a tight collaboration with Geosystems Hellas S.A. My research interests include: Multispectral, hyperspectral, thermal, SAR, LiDAR etc sensors and (satellite, aerial, ground and underwater) platforms/systems. - Acquisition and processing of remote sensing imagery emphasizing in methods and techniques for various applications like change detection, modelling of phenomena, risk assessment of natural hazards and the protection of the natural environment. - Development of algorithms and methods for the analysis of remote sensing imagery as well as their integration with GIS. I have special interest and experience on acquisition and processing of multispectral/hyperspectral and thermal remote sensing imagery, as well as AI image analysis techniques including object-based image analysis, machine and deep learning. Also experienced in cloud computing and the development of WebGIS applications.

### ● WORK EXPERIENCE

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2002 – CURRENT

**TEACHING STAFF** NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA), LAB OF REMOTE SENSING (RSLAB)

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15/03/2023 – CURRENT Athens, Greece

**PROJECT MANAGER** GEOSYSTEMS HELLAS S.A.

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1993 – CURRENT

**FREELANCER SURVEYING ENGINEER**

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1998 – 2002

**COLLABORATOR** KTIMATOLOGIO S.A. - EUROPEAN PROGRAMMES DIVISION

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Participation as a collaborator in the European Programmes run by the Division

1998 – 2002

**STAFF AND RESEARCH COLLABORATOR** NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA),  
LAB OF REMOTE SENSING (RSLAB)

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1993 – 1998

**RESEARCH COLLABORATOR** NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA), LAB OF  
REMOTE SENSING (RSLAB)

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Participation in the research programmes of the laboratory

## ● EDUCATION AND TRAINING

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2008

**DOCTOR ENGINEER** National Technical University of Athens, Remote Sensing Laboratory

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**Thesis** Development of an Integrated System of Hyperspectral and Thermal Remote Sensing Sensors for the  
Detection of Coastal and Submarine Springs

1993

**RURAL & SURVEYING ENGINEER** School of Rural and Surveying Engineering of the National  
Technical University of Athens (NTUA)

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**Field of study** Remote Sensing | **Final grade** 7.64/10 |

**Thesis** Evaluation of the Capabilities of Digital Photointerpretation Keys (diploma thesis degree: 10/10)

## ● LANGUAGE SKILLS

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Mother tongue(s): **GREEK**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C1	C1	C1	C1

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

## ● DIGITAL SKILLS

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### Operating Systems

Unix-Linux/X-windows | Windows/DOS systems | MacOS

### Programming

C | Python | Fortran | Basic | Bash/Cshell scripts | R

### Remote Sensing Software

ESA SNAP | eCognition | ENVI | ERDAS | SAGA GIS | ERMapper | PCI Geomatica | Idrisi |  
Geoserver | BricksCAD | ArcGIS | GRASS | ORFEO toolbox | QGIS | AutoCAD | ArcIMS |  
ArcServer | ArchiCAD | Image Web Server

### Web-based

network administration | creation of Web Pages and Web Servers

### Remote sensing related technical skills

Development of prototype constructions for close-range hyperspectral image acquisitions. | Organization  
and realization of hyperspectral in situ measurements. | Acquisition/preprocessing of aerial hyperspectral  
and thermal imagery | Acquisition/preprocessing of drone multispectral imagery.

## Other technical skills

Long experience in construction and maintenance of electronic/electrical and mechanical equipment

## ● ADDITIONAL INFORMATION

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### PUBLICATIONS

#### (a) In scientific journals:

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Papakonstantinou A., Moustakas A., Kolokoussis P., Papageorgiou D., de Vries R., Topouzelis K., 2023, "Airborne Spectral Reflectance Dataset of Submerged Plastic Targets in a Coastal Environment", MDPI Data, 8, 19. <https://doi.org/10.3390/data8010019>

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Kremezi M., Kristollari V., Karathanassi V., Topouzelis K., Kolokoussis P., Taggio N., Aiello A., Ceriola G., Barbone E. and Corradi P., 2022. "Increasing the Sentinel-2 potential for marine plastic litter monitoring through image fusion techniques", Marine Pollution Bulletin, Vol 182, 113974, <https://doi.org/10.1016/j.marpolbul.2022.113974>

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Taggio N., Aiello A., Ceriola G., Kremezi M., Kristollari V., Kolokoussis P., Karathanassi V., Topouzelis K., Barbone E., Corradi P., 2022, "Combination of Machine Learning Algorithms for Marine Plastic Litter Detection on Hyperspectral PRISMA Data", MDPI Remote Sensing, 14(15), 3606; <https://doi.org/10.3390/rs14153606>

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Miltiadou M., Karathanassi V., Agapiou a., Theocharidis C., Kolokoussis P., Danezis C., 2022, "A selection of experiments for understanding the strengths of time-series SAR data analysis for finding the drivers causing phenological changes in Paphos forest, Cyprus", MDPI Remote Sensing, 14(15), 3581; <https://doi.org/10.3390/rs14153581>

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Andronis V., Karathanassi V., Tsalapati V., Kolokoussis P., Miltiadou M., Danezis C., 2022. "Time Series Analysis of Landsat Data for Investigating the Relationship between Land Surface Temperature and Forest Changes in Paphos Forest, Cyprus", MDPI Remote Sensing, 14, 1010. <https://doi.org/10.3390/rs14041010>

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Kremezi M., Kristollari V., Karathanassi V., Topouzelis K., Kolokoussis P., Taggio N., Aiello A., Ceriola G., Barbone E. and Corradi P., 2021. "Pansharpening PRISMA Data for Marine Plastic Litter Detection Using Plastic Indexes", IEEE Access, Vol. 9, pp. 61955-61971, DOI: 10.1109/ACCESS.2021.3073903

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Kopsachilis V., Siciliani L., Polignano M., Kolokoussis P., Vaitis M., De Gemmis M. and Topouzelis K. (2021). "Semantically-Aware Retrieval of Oceanographic Phenomena Annotated on Satellite Images", Information 2021, 12(8), 321, MDPI, <https://doi.org/10.3390/info12080321>

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Giannakopoulou, S., Kolokoussis, P., Arvanitis, A. 2020. "Territorial disparities between mountains and lowlands in Greece in the context of post-2020 Cohesion Policy", Geographia Polonica Vol. 93 No. 3 (2020), IGIPZ PAN, DOI: 10.7163/GPol.0182

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Kampouri M., Kolokoussis P., Argialas D., Karathanassi V., 2019. "Mapping of Forest Tree Distribution and Estimation of Forest Biodiversity using Sentinel-2 Imagery in the University Research Forest Taxiarchis in Chalkidiki, Greece", Geocarto International, Vol 34, Issue 12, DOI: 10.1080/10106049.2018.1489424

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Athanassas, C.D., Vaiopoulos, A., Kolokoussis, P., Argialas D., 2018. "Remote Sensing of Mars: Detection of Impact Craters on the Mars Global Surveyor DTM by Integrating Edge- and Region-Based Algorithms", Earth Moon Planets, DOI: 10.1007/s11038-018-9515-3

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Kolokoussis P., Karathanassi V., 2018. "Oil Spill Detection and Mapping Using Sentinel 2 Imagery." Journal of Marine Science and Engineering, 6(1):4, DOI: 10.3390/jmse6010004.

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Lazoglou M., Kolokoussis P., Dimopoulou E., 2016. "Investigating the Use of a Modified NSGA-II Solution for Land-Use Planning in Mediterranean Islands", Journal of Geographic Information System 8(3):369-386, June 2016, DOI: 10.4236/jgis.2016.83032.

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Sismanidis P., Karathanassi V., Kolokoussis P., 2014. "De-shadowing of airborne imagery using at-sensor downwelling irradiance data", *International Journal of Remote Sensing*, Vol 35, Issue 19, pp. 6973-69921, DOI:10.1080/01431161.2014.960620, Taylor & Francis.

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Sykas D., Karathanassi V., Kolokoussis P., 2013. "Development of a New Automatic Relative Radiometric Normalization Methodology for Multispectral and Hyperspectral Images", *Journal of Remote Sensing Technology (open access)*, Vol 1, Issue 3, pp. 75-83 (November 2013), DOI: 10.18005/JRST0103003, Bowen Publishing (<http://www.bowenpublishing.com/jrst/paperInfo.aspx?PaperID=15107>).

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Kolokoussis P. and Karathanassi V., "Detection of Oil Spills and Underwater Natural Oil Outflow Using Multispectral Satellite Imagery", *International Journal of Remote Sensing Applications (open access)*, Vol 3, Issue 3 (September 2013), Science and Engineering Publishing Company, 2013 (<http://www.ijrsa.org/paperInfo.aspx?ID=4837>).

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Kolokoussis P., Karathanassi V., Rokos D., Argialas D., Karageorgis A. P. and Georgopoulos D., 2011. "Integrating Thermal and Hyperspectral Remote Sensing for the Detection of Coastal Springs and Submarine Groundwater Discharges", *International Journal of Remote Sensing*, Vol.32, No. 23, pp. 8231-8251, Taylor & Francis.

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Andreou Ch., Karathanassi V., Kolokoussis P., 2010. "Investigation of Hyperspectral Remote Sensing for Mapping Asphalt Road Conditions", *International Journal of Remote Sensing*, Vol. 32, No. 21, pp. 6315-6333, Taylor & Francis.

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Karathanassi V., Kolokoussis P., Ioannidou S., Rokos D., 2007. "A comparison study on fusion methods and evaluation indicators", *International Journal of Remote Sensing*, Vol. 28, No. 10, pages 2309-2341, Taylor & Francis.

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Rokos D., Kolokoussis P., 2004. "Natural Regeneration Potential and Soil Erosion Risk after Forest Fires in Typical Mediterranean areas", *Local Land & Soil News No. 10/11/II/III/04*, European Land and Soil Alliance ELSA e.V.

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Rokos D., Kolokoussis P., 1996. "The Use of Remote Sensing in the Evaluation of the Natural Regeneration Potential, Erosion Risk and Desertification Risk after Forest Fires", *Advances in Remote Sensing*, Vol. 4, No. 4, XI-1996, EARSeL.

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#### (b) In proceedings of conferences and workshops with peer review

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Kolokoussis P., Skamantzari M., Tapinaki S., Karathanassi V., Georgopoulos A., 2021. "3D and Hyperspectral Data Integration for Assessing Material Degradation in Medieval Masonry Heritage Buildings", XXIV ISPRS Congress, Commission II, WGII/8, 4-10 July 2021, Nice, France

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Konstantinidou E.E., Kolokoussis P., Topouzelis K., Moutzouris-Sidiris I., 2019. "An open source approach for oil spill detection using Sentinel-1 SAR images", 7th International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2019); 1117412 (2019) <https://doi.org/10.1117/12.2539256>

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Karamvasis K., Kolokoussis P., Karathanassi V., De Pasquale V., Ceriola G., 2018. "A Methodology for Monitoring the Upwelling Phenomenon Using Sentinel-3 products", RSCy2018 - Sixth International Conference on Remote Sensing and Geo-Information of Environment, 26-29 March 2018, Paphos, Cyprus.

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Miltiadou M., Papoutsas C., Karathanassi V., Kolokoussis P., Lafon V., Sykas D., Sarelli A., Prodromou M. and Hajimitsis D., 2018. "Detection of Marine Fronts; a Comparison between Different Approaches Applied on the SST Product Derived from Sentinel-3 data", RSCy2018 - Sixth International Conference on Remote Sensing and Geo-Information of Environment, 26-29 March 2018, Paphos, Cyprus.

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Polignano M., De Gemmis M., Kopsacheilis V., Vaitis M., Malig J., Grether D., Ioannou I., Sarelli A., De Pasquale V., Samarelli S., Kolokoussis P., Karamvasis K., Miltiadou M., Papoutsas C., Regniers O., Lafon V., Topouzelis K., Despotov B., 2018. "A Semantic Representation of EO data for Image Retrieval Based on Natural Language Queries", RSCy2018 - Sixth International Conference on Remote Sensing and Geo-Information of Environment, 26-29 March 2018, Paphos, Cyprus.

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Kontopoulou E., Kolokoussis P., Karantzalos K., 2014, "Water quality estimation in Greek lakes from Landsat 8 multispectral satellite data", International Symposium of EWRA on "Water Utility Support", 5 June 2014, NTUA, Athens.

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Psalta A., Karathanassi V. and Kolokoussis P., 2016. "Modified versions of slic algorithm for generating superpixels in hyperspectral images", 8th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing (WHISPERS), 21-24 August 2016, Los Angeles, USA, IEEE.

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Stavrakoudis D., Gitas I., Karydas C., Kolokoussis P., Karathanassi V., 2015. "Accurate multi-source forest species mapping using the multiple spectral-spatial classification approach", Proc. SPIE 9643, Image and Signal Processing for Remote Sensing XXI, 964324 (15 October 2015), DOI: 10.1117/12.2194663.

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Karathanassi V., Andreou C., Andronis V., Kolokoussis P., 2014. "Effects of band selection on endmember extraction for forestry applications", Proc. SPIE 9245, Earth Resources and Environmental Remote Sensing/GIS Applications V, 924510 (23 October 2014), DOI: 10.1117/12.2067293.

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Argialas D., Argyridis A., Skandali D., and P. Kolokousis, 2012. "Extraction of the Foreshore Area from High Resolution Airborne Imagery Using Object Based Image Analysis: Vegetation Border Criterion", FIG Commission 3 Workshop on Spatial Information, 10-14 December 2012, Athens, Greece.

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Sykas D., Karathanassi V., Andreou Ch. and Kolokoussis P., 2011. "Oil Spill Thickness Estimation Using Unmixing Methods", Proceedings of the 3rd Workshop on Hyperspectral Image and Signal Processing: WHISPERS 2011 (6-9 June, 2011, Lisbon, Portugal), IEEE.

---

Sykas D., Karathanassi V., Andreou C. and Kolokoussis P., 2011, "Oil Spill Mapping Using Hyperspectral Methods and Techniques", Proceedings of the Tenth International Conference on the Mediterranean Coastal Environment, (MEDCOAST), October 2011, Rhodes, Greece.

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Andreou C., Karathanassi V., Kolokoussis P., 2011. "Spectral Library for Oil Types", proc. 34th International Symposium on Remote Sensing of the Environment (ISRSE). April 10-15, 2011, Sydney, Australia.

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Karathanassi V., Kolokoussis P., Ioannidou S., 2009. "Independent Component Analysis for coastal water mapping using hyperspectral datasets", In proceedings of: "First Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing, WHISPERS '09", DOI:10.1109/WHISPERS.2009.5289048, IEEE.

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Kouli, M., Vamvoukakis, K., Karen St. Seymour, Karfakis, I., Kolokousis, P., 5Lamera, S., Denes, G., Rokos, D., 2002. "Localization of Volcanic Structures in the Miocene Volcanic Field of Lesbos Island, Northeastern Aegean, Combining Remote Sensing Methods and Techniques with Geological Field Exploration", Proceedings of the 6th International Conference of the Hellenic Geographical Society, Thessaloniki, Hellas, Oct, 2002.

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Panagiotopoulou, E., Kolokoussis, P., Lavallo, C., "Urban and Regional Planning: the city of Heraklion", 28th International Symposium on Remote Sensing of Environment (27-31st March 2000, Cape Town, South Africa).

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Rokos D., Argialas D., Panagiotopoulou E., Andronis V., Kolokoussis P., 1993. "Structuring a GIS Decision Support System for the Prevention of Desertification Resulting from Forest Fires.", Proceedings of the Workshop on Forest Mapping and Fire Management (Thessaloniki, Greece, 4-6 November 1993), EARSeL.

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(c) In proceedings of conferences and workshops with abstract review:

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Papakosmas T., Kolokoussis P., Karantzalos K., 2022, "Quantification of ecological light pollution in the Region of Epirus with remote sensing and GIS methods", 10th Interdisciplinary-Interuniversity Conference of the NTUA, 22-24 September 2022, Metsovon, Greece.

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Andronis V., Kolokoussis P., Vassili-Vassiliou K., Karathanassi V., 2022, "Penalized Variable Selection in Bayesian Spectral Spatial Species Separation", 10th Interdisciplinary-Interuniversity Conference of the NTUA, 22-24 September 2022, Metsovon, Greece.

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Stratis P., Kolokoussis P., Argialas D., "Recognition of organic cultivation practices by remote sensing technics", 3rd Geographic information Systems and spatial analysis in Agriculture and Environment conference, Athens, December 2019.

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Kolokoussis P., Lazoglou M., Galanos I., Dimopoulou E., 2016. "Applying Genetic Algorithms for Land Use Planning in Mountain Areas", Proceedings of the 8th Interdisciplinary-Interuniversity Conference of the NTUA "The Integrated Development of Mountainous and Geographically Solitary Regions", 22-24 September 2016, Metsovon, Greece.

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Kampouri M., Kolokoussis P., Argialas D., Karathanassi V., 2016. "Investigation on the distribution of forest tree species and biodiversity in Taxiarchis University Forest in Chalkidiki, using hyperspectral and multispectral imagery", Proceedings of the 8th Interdisciplinary-Interuniversity Conference of the NTUA "The Integrated Development of Mountainous and Geographically Solitary Regions", 22-24 September 2016, Metsovon, Greece.

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Beka S., Kolokoussis P., Argialas D., 2016. "Detection of buildings -as a Development Component- Using Geomorphometry and Object Based Image Analysis", Proceedings of the 8th Interdisciplinary-Interuniversity Conference of the NTUA "The Integrated Development of Mountainous and Geographically Solitary Regions", 22-24 September 2016, Metsovon, Greece.

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Galanos I., Kolokoussis P., 2010. "Landslide risk zone mapping using Remote Sensing and GIS methods", Proceedings of the 6th Interdisciplinary-Interuniversity Conference of the NTUA "The Integrated Development of Mountainous Regions" (16-19 September 2010, Metsovon, Greece), NTUA, Athens.

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Argialas D., Georgopoulos A., Rokos D., Ioannidis C., Alvertos N., Paragios N., Papadaki E., Kolokoussis P., Iossifides C., Mavrantza O., Papasaika C., Noutsou V., Tzotsos A., Deltsidis P., Pantelis M., Karantzalos K., 2007. "Development of advanced remote sensing - photogrammetry techniques for urban geospatial database creation", PYTHAGORAS - Conference for the scientific research in the National Technical University of Athens, 5-8 July 2007, Plomari, Lesvos.

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Kolokoussis P., Andronis V., Iossifides Ch., Vassili-Vassiliou K., Rokos D., 2007. "Production of land use and change detection maps for the Region of Epirus using remote sensing methods and techniques. A contribution to Regional Development infrastructure", Proceedings of the 4th Interdisciplinary-Interuniversity Conference of NTUA "The Integrated Development of Epirus", (23-26 September 2004, Metsovon, Greece), NTUA, Athens.

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Rokos D., Iossifides C., Kolokoussis P., 2004. "Exploration of Capabilities of the New Remote Sensing Satellites LANDSAT 7 and IKONOS in Change Detection and Mapping of Mountain Regions", Proceedings of the 3rd Interdisciplinary-Interuniversity Conference of NTUA "Integrated Development Of Mountainous Regions. Theory And Practice" (7-10 June 2001, Metsovon, Greece), NTUA, Athens.

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Rokos D., Argialas D., Andronis V., Kolokoussis P., Karathanassi V., 1998. "Structuring an Integrated Information System for Development and the Environment for the province of Metsovo", Proceedings of the 1st Interdisciplinary-Interuniversity Conference of NTUA "The National Technical University of Athens for Metsovo - Paying Back a Part of the Debt" (5-6 May 1995, Metsovo, Greece), NTUA, Athens.

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Kolokoussis P. and Rokos D., 1995. "The use of remote sensing in the evaluation of the natural regeneration potential and desertification risk after forest fires in the prefecture of Attica.", Proceedings of the 1st workshop of the Hellenic National Space Committee (26-27 January 1995, Athens, Greece), National Research Foundation, Athens.

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**(d) Other publications/posters/presentations:**

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Kremezi M., Kristollari V., Karathanassi V., Kolokoussis P., 2022, "Enhancing PRISMA and Sentinel 2 Capabilities for Marine Plastic Litter Detection Using Image Fusion Techniques, Spectral Signature Unmixing and Spectral Indexes", 41st EARSeL Symposium 2022, 13-16 September, Paphos, Cyprus.

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Valsamidis T., Karathanassi V., Kolokoussis P., Andronis V., 2019, "Raw materials' detection using hyperspectral remote sensing techniques. Case study W. Milos, Greece", 15th International Congress of the Geological Society of Greece - GSG2019, Athens, 22-24 May 2019.

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Argyridis A., Argialas D., Skandali D., and P. Kolokousis, 2011. "Development of a knowledge base in an object-based image analysis system for the extraction and identification of shorelines", 15th Joint Geomorphological Meeting, 1-4 June 2011, Athens, Greece

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Panagiotopoulou, E., Kolokoussis, P., "Contribution of night pass LANDSAT-7 data in urban planning", ESA/ESRIN LANDSAT-7 Workshop (11-12th May 2000, Frascati, Italy).

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Rokos D., Kolokoussis P., 1997. "Monitoring of the natural regeneration after forest fires using satellite remote sensing methods and techniques". 2nd Workshop "Human network for the Dissemination of the R&D knowledge" (13-14 February 1997, Thessaloniki).

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Rokos D., Kolokoussis P., 1996. "Post fire mapping of typical Mediterranean forest areas using LANDSAT TM images. A knowledge based approach for the prediction of forest sustainability.", Poster presentation in the "International Conference on Mediterranean Desertification", 29 Oct - 21 Nov 1996, Heraklion, Greece.

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Rokos D., Kolokoussis P., 1995, "The Use of Remote Sensing in the Evaluation of Natural Regeneration Potential, Erosion Risk and Desertification Risk, after Forest Fires.", EARSeL Workshop on "Remote Sensing and GIS Applications in Forest Fire Management", 7-9 September 1995, Alcalá de Henares, Spain

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(e) In books:

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Stratis P., Kolokoussis P. Argialas D., "Recognition of Organic Cultivation Practises Using Remote Sensing Methods and Techniques", "Measurement routes - Honorary volume dedicated to the memory of Evangelia Lamprou, Professor of the NTUA", NTUA, 2021.

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## **NETWORKS AND MEMBERSHIPS**

1993 – CURRENT

**Member of Technical Chamber of Greece**

1993 – CURRENT

**Member of the Hellenic Association of Rural and Surveying Engineers**

## **DRIVING LICENCE**

**Driving Licence: B**

## **CONFERENCES AND SEMINARS**

05/06/2023 – 06/06/2023 – ESA – ESTEC, Holland

**Workshops for Greek CubeSat Projects of the Greek National Telecom Satellite Project**

05/07/2021 – 09/07/2021

**2021 Digital Event of the XXIV ISPRS Congress.**

07/06/2001 – 10/06/2021 – Metsovo, Greece

**3rd Interdisciplinary-Interuniversity Conference of the NTUA "Integrated Development Of Mountainous Regions. Theory and Practice"**

19/05/2021 – 21/05/2021

**«University of the Aegean Research & Innovation days – Dimitris Eduard Gardikis».**

19/11/2020

**Dissemination workshop of project MARRE: "System for Environmental Monitoring of the Greek Seas with the Use of Satellite Remote Sensing Data and In-situ measurements"**

26/03/2018 – 29/03/2018 – Paphos, Cyprus

**RSCy2018 - Sixth Internatioanal Conference on Remote Sensing and Geo-Information of Environment**

07/10/2016 – National Hellenic Research Foundation (N.H.R.F), Athens, Greece

**Copernicus Information and Training Session in Greece**

22/09/2016 – 24/09/2016 – Metsovo, Greece

**8th Interdisciplinary-Interuniversity Conference of the NTUA "Integrated Development of Mountainous and Geographically Solitary Regions"**

15/07/2014 – Athens Innovation Center, Athens, Greece

**Copernicus Masters Competition 2015 Workshop**

05/06/2014 – School of Rural & Surveying Engineering, NTUA, Athens

**International Symposium of the European Water Resources Association (EWRA) "Water Utility Support"**

12/05/2014 – 15/05/2014

**Copernicus - Sentinels Serving Society and the Environment** Eugenides Foundation, Athens, Greece

12/09/2013 – 15/09/2013 – Metsovo, Greece

**7th Interdisciplinary-Interuniversity Conference of the NTUA "Integrated Development in Greece in an Era of Multidimensional Crisis. Causes, Responsibilities, Proposals, Measures, Actions and Perspectives"**

21/11/2012 – Isola d' Elba, Italy

**International Conference: "New strategies and technologies for the safety of navigation in the Mediterranean sea"**

30/07/2012 – Zakynthos, Greece

**Workshop "Marine pollution, Monitoring Systems and treatment"**

16/09/2010 – 19/09/2010 – Metsovo, Greece

**6th Interdisciplinary-Interuniversity Conference of the NTUA "The Integrated Development of Mountainous Areas"**

14/09/2009 – 19/09/2009 – Metsovon Conference Center and Metsovion Interdisciplinary Research Center (MIRC), Metsovo, Greece

**International Technical Workshop "SLR Tracking of GNSS Constellations, 50 Years of Satellite Geodesy and Geodynamics"**

04/12/2008 – 05/12/2008

**5th Conference "Geographical Information Systems - Environment & Development"**

11/12/2007 – Technical Chamber of Greece, NTUA, Athens

**Workshop "Proactive planning and management of Natural Hazards. The role of Surveying Engineers"**

03/12/2007 – 04/12/2007 – NTUA, Athens, Greece

**Symposium "The National Technical University on the lead of research and technology"**

27/09/2007 – 30/09/2007 – Metsovo, Greece

**5th Interdisciplinary-Interuniversity Conference of the NTUA "Education-Research-Technology. Yesterday and tomorrow"**

22/02/2007 – 23/02/2007 – Tech. Chamber of Greece, Geo-Tech. Chamber of Greece, Greek Society of Photogrammetry and Rem. Sens

**Workshop "Remote Sensing: Development and Applications"**

22/02/2007 – 23/02/2007 – Planetek Hellas, Athens, Greece

**"Spatial Information in 4D"**

07/11/2006 – 09/11/2006 – Athens, Greece

**21st European conference for ESRI users. Marathon Data Systems**

23/09/2004 – 26/09/2004 – Metsovo, Greece

**4th Interdisciplinary-Interuniversity Conference of the NTUA "The Integrated Development of Epirus"**

16/04/2000 – 18/04/2000 – Ispra, Italy

**Workshop, Programme Athens 2004 – ASTRON, JRC/SAI**

13/02/1997 – 14/02/1997 – Thessaloniki, Greece

**2nd Workshop "Human network for the Dissemination of the R&D knowledge"**



29/10/1996 – 21/11/1996 – Heraklion, Greece

**International Conference on Mediterranean Desertification**

05/05/1995 – 06/05/1995 – Metsovo, Greece

**1st Interdisciplinary-Interuniversity Conference of the NTUA "The National Technical University of Athens for Metsovo - Paying Back a Part of the Debt"**

26/01/1995 – 27/01/1995 – Athens, Greece

**The 1st workshop of the Hellenic National Space Committee**

13/06/1994 – 16/06/1994 – Valencia, Spain

**Experts Workshop on "Remote Sensing for Land Degradation and Desertification Monitoring in the Mediterranean Basin - State of Art and Future Research"**

18/05/1994 – 24/05/1994 – Athens, Greece

**MEDALUS II Group Meeting and Conference**

29/11/1993 – 01/12/1993 – Frascati, Italy

**"Optical to ERS-1 Cross-over training course" of ESA / Eurimage**

04/11/1993 – 06/11/1993 – Thessaloniki, Greece

**EARSel Workshop on "Forest Mapping and Fire Management"**

## **PROJECTS**

2023 – 2026

**EO-PERSIST: A Cloud-Based Remote Sensing Data System For Promoting Research And Socioeconomic Studies In Arctic Environments.** HORIZON-MSCA-2021-SE-01-01, Grant Agreement number: 101086386, Partners: Harokopio University of Athens, National Technical University of Athens, CloudEO Ellas I.K.E., PlanetGIS SKY SRL, Universitatea Din Bucuresti, YetItMoves SRL, CloudFerro, CloudEO AG, Ilmatieteen Laitos FMI, Lunds Universitet

2023 – 2026

**THETIDA: Technologies and methods for improved resilience and sustainable preservation of underwater and coastal cultural heritage to cope with climate change, natural hazards and environmental pollution.** HORIZON-CL2-2022-HERITAGE-01-08, Grant Agreement number: 101095253, Partners: Institute of Communication and Computer Systems, EdgeLab s.r.l., Eindhoven University of Technology, University of Padova, National Technical University of Athens, Universidade Do Algarve, Norwegian Institute for Cultural Heritage Research, SignalGeneriX Ltd, ResilienceGuard, MOOI Noord-Holland, Cyprus Marine and Maritime Institute, Centro de Ciência Viva do Algarve, IANTD s.r.l., Association Européenne EURISY, Ephorate of Antiquities of Cyclades, University of Cyprus, Marina Diving di Corrado Ambrosi

2023 – 2025

**HELLENIC SPACE DAWN - HELIOS & SELENE: Greek CubeSats in-orbit validation projects** ESA Contract No. 4000140681/23/NL/ND, Partners: EMTech Space PC, ISD SA, HERON Engineering, LEO Space Photonics, Geosystems Hellas SA, Aristotelian University of Thessaloniki, National and Kapodistrian University of Athens, Hellenic Navy

2023 – 2024

**SPOTTED: Spatio-Temporal Fusion and Artificial Intelligence for Debris Detection.** Funded by ESA/ Planetek Italia S.R.L., Partners: by Planetek Italia SRL and the National Technical University of Athens. ESA contract: 4000141234/23/NL/GLC/ov.

2023 – 2024

**CO-PROTECT: Cluster of Interoperable and Holistic Civil Protection Systems** Competitiveness, Entrepreneurship, and Innovation (EPANEK 2014-2020), Grant agreement No: ΓΓ2CL-0363842. Partners: Satways Ltd, Draxis Environmental SA, GAP Analysis SA, Future Intelligence Ltd, Exus Software, Consortis, Geosystems Hellas, Inforest Research, Prisma Electronics, Space Hellas SA, Omikron Environmental Consultants SA, TotalView Ltd, Aegean Solutions, Telenavis SA, Europort SA, Weather & Marine Engineering Technologies PC, Altus LSA SA, Grid Engineering SA, Redi Engineering Solutions, European Dynamics SA.

2022 – 2023

**AQUASAFE: Towards a Precision Aquaculture Geoinformation System** University of the Aegean (Department of Marine Sciences), Geospatial Enabling Technologies, Hellenic Center for Marine Research (Institute of Oceanography), Plagton SA. Funded under the call Research-Create-Innovate.

2020 – 2022

**HYPERION: Development of a Decision Support System for Improved Resilience & Sustainable Reconstruction of historic areas to cope with Climate Change & Extreme Events based on Novel Sensors and Modelling Tools** Institute of Communication and Computer Systems, Ilmatieteen Laitos, Resilience Guard GmbH, Oslomet-Storbyuniversitetet, National Technical University of Athens, Risa Sicherheitsanalysen GmbH, Università Degli Studi di Padova, Universidad de Granada, Aristotelian University of Thessaloniki, Cy.R.I.C Cyprus Research and Innovation Center Ltd, Università Iuav di Venezia, Vestfold Fylkeskommune, Comune di Venezia, Municipality of Rhodes, Ephorate of Antiquities of the Dodecanese, Ayuntamiento de Granada, Intercultural Euro Mediterranean Center for UNESCO, Red Spa, H2020-LC-CLA-2018-2019-2020/H2020-LC-CLA-2018-2, Grant Agreement number: 821054.

2020 – 2021

**REACT: cRowdsourcing, copErnicus and hyperspectral Satellite data for mArine litter deteCtion, quanTification and tracking** Planetek Italia S.R.L., National Technical University of Athens, Agenzia Regionale per la Prevenzione e la Protezione dell' Ambiente - Puglia, ESA contract no. 4000131235/20/NL/GLC "OSIP Remote Sensing for Marine Litter-Early Technology Development Scheme"

2020 – 2021

**ASTARTE: Analysis of SAR and Thermal satellite time-series dAta foR understanding the long-term impact of land surface TEmpérature changes on forests project** National Technical University of Athens, Cyprus University of Technology, EXCELLENCE/0918/0341 (the Project is co-financed by the European Regional Development Fund and the Republic of Cyprus through the Research Promotion Foundation).

2019 – 2021

**MARRE: System for Environmental Monitoring of the Greek Seas with the Use of Satellite Remote Sensing Data and In-situ measurements** Geospatial Enabling Technologies, Hellenic Centre for Marine Research, University of the Aegean – Marine Remote Sensing Group, "Competitiveness, Entrepreneurship & Innovation 2014-2020"

2016 – 2019

**SEO-DWARF: Semantic EO Data Web Alert and Retrieval Framework** H2020-MSCA-RISE-2015-691071

2018

**Hyper-urban: Analysis of Hyperspectral Imagery for the Extraction of Spectral Signatures of the Urban Environment** CalCon Holding GmbH, National Technical University of Athens.

2017 – 2018

**MATERIAL: Analysis of Spectral Signatures of the Urban Environment** CalCon Holding GmbH, National Technical University of Athens

2012 – 2015

**TeleKyoto: Vegetation Mapping and Biomass Estimation with Modern Remote Sensing Methods in Order to Fulfil the Country's Obligations Under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol** Operational Program for Educational and Vocational Training II (EPEAEK-II), MIS 377293.

2012 – 2015

**UrbanMonitor: Automatic Detection and Modelling of 2D and 3D Changes in the Urban Environment from Multi-Modal, Multi-Temporal Remote Sensing Data** Operational Program for Educational and Vocational Training II (EPEAEK-II), MIS 380134.

2010 – 2012

**HydroSense: Innovative precision technologies for optimised irrigation and integrated crop management in a water-limited agrosystem** co-funded by LIFE and Environment (LIFE08 ENV/GR/0000570), Research partners: Goulandris Natural History Museum, Benaki Phytopathological Institute, University of Thessaly, National Agricultural Research Foundation and Agricultural University of Athens.

2009 – 2012

**ARGOMARINE: Automatic Oil spill Recognition and Geopositioning integrated in a Marine Monitoring Network** 7th Framework Programme, Research partners: National Park of the Tuscany Archipelago (Coordinator) - PNAT (ITALY), National Technical University of Athens - NTUA (GREECE), National Research Council – Institute of Information Science and Technologies - CNR-ISTI (ITALY), Nansen Environmental and Remote Sensing Center - NERSC (NORWAY), Centro de Investigacao Marinha e Ambiental – Universidade do Algarve - CIMA-UALG (PORTUGAL), Scensive Technologies Limited - ST (UNITED KINGDOM), National Maritime Park of Zakynthos - NMPZ (GREECE), Joint Research Center – Institute for the Protection and Security of the Citizen - JRC (EU)

2005 – 2007

**Investigation of the Possibilities and Limitations of the Analog and Digital Remote Sensing Methods for the Identification and Mapping of Transmission and Subtransmission Energy Lines** Funded by the Public Power Corporation S.A.

2005 – 2007

**Developing a Decision Support System for the Management of Natural and Man-Made Hazards in the Eastern Attica Prefecture** PYTHAGORAS II project is a part of the Operational Program for Educational and Vocational Training II (EPEAEK-II), which is co-funded by the European Social Fund (75%) and National Resources (25%).

2005 – 2006

**DISMA: DISaster MAnagement GIS with emphasis on cultural sites** INTEREG IIIC, Research partners: Centre for the Assessment of Natural Hazards & Proactive Planning (NTUA), Fundação Gomes Teixeira da Universidade do Porto (FGT-UP), Department of Natural Resources Management and Agricultural, Engineering- Agricultural University of Athens (NRMAE-AUA), Centre National de la Recherche Scientifique-CNRS – CEPAM.

2003 – 2006

**IRIS: Development of an airborne remote sensing hyperspectral system for the detection of submarine and coastal springs** CSF 2000-2006, Secretariat General for Research and Development, Operational Programme Competitiveness, Action 4.5.1, Practice: Natural Environment and Sustainable Development.

1997 – 2000

**APERTURE: environmental tyPological spacE mapper facilitating the implemenTation of eURopean lEgislation** funded by the EE ENVIRONMENT Program and carried out by the Remote Sensing Laboratory of the NTUA in cooperation with the Ministry of Agriculture of Greece, IIS SA, CNIG, GEOSYS, Ministry of Environment of Spain, European Center of Public Law, Imperial College, Universitat Bremem, Universidad Autonoma de Barcelona, Universite de Limoges, Instituto per Ambiente.

1996 – 2000

**DeCETI: Development of a Common Educational and Training Infrastructure for the Integration of Remote Sensing, Digital Processing of Satellite Imagery, Photo-Interpretation and GIS methods, techniques and applications. Case-Study:ThemonitoringandprotectionoftheforestecosystemsinttheGreaterAreaofUrbanConglomerations.** [funded by the EEC Programme LEONARDO DA VINCI, and carried out by the Remote Sensing Laboratory of the NTUA in cooperation with: a) the University of Surrey, United Kingdom, b) the Universite Paul Sabatier, France, c) the Hellenic Cadastral and Mapping Organization-HECMO, Greece and d) Consulting Engineering Firms].

1996 – 1998

**Investigation of the Possibilities of the Integrated Remote Sensing and GIS Information in the Hydrogeological Research of Naxos Island** funded by Secretariat General of Research and Technology, Greece

1993 – 1997

**Contribution of Remote Sensing and Digital Image Processing in Facing the Problems of Metropolitan Cities** funded by the Secretariat General of Research and Technology and the Municipality of Nikaia, Greece

1995 – 1996

**Development of a Digital Remotely Sensed Imagery Processing Software for Agricultural Applications in the Specific Natural and Socioeconomic Conditions of Greece (PHASE II)** funded by the Ministry of Agriculture and the Secretariat General of Research and Technology, Greece and carried out by the Remote Sensing Laboratory of the NTUA

1994 – 1996

**FIRES : Forest Image Processing Supported by Expert System** funded by the EEC and carried out by the Remote Sensing Laboratory of the NTUA in cooperation with: a) the Centro di Ricerche e Servizi Avanzati per la Formazione-SCIENTER, Italy, b) the Centro Nacional de Informacao Geographica-CNIC, Portugal and c) Integrated Information Systems S.A., Greece.

1993 – 1995

**Development of Operational Methods and Techniques for the Integration of the Possibilities of Photo-Interpretation and Remote Sensing in Agricultural Statistics** funded by the General Secretariat of Research and Technology, Greece

1992 – 1995

**A GIS Decision Support System for the Prevention of Desertification Resulting from Forest Fires**

funded by the EEC and carried out by the Remote Sensing Laboratory of the NTUA in cooperation with: a) the National Agriculture Research Foundation, Greece, b) the University of Surrey, United Kingdom and c) the Institute for Image Processing and Computer Graphics - DIBAG, Graz, Austria.

1993 – 1994

**Application of Machine Vision Techniques in the Quality Control of Pharmaceutical Solutions** funded by the Ministry of Labor, Greece and the European Social Fund

1992 – 1994

**Development of a Digital Remotely Sensed Imagery Processing Software for Agricultural Applications in the Specific Natural and Socioeconomic Conditions of Greece** funded by the Ministry of Agriculture and the Secretariat General of Research and Technology, Greece and carried out by the Remote Sensing Laboratory of the NTUA

## **HONOURS AND AWARDS**

2001

**"D. Thomaidis" award for innovative scientific publication – National Technical University of Athens**

1998

**"D. Thomaidis" award for innovative scientific publication – National Technical University of Athens**

1997

**2-year Scholarship – National Technical University of Athens**

1993

**3-year Scholarship – National Greek Scholarship Foundation (IKY)** Obtained the scholarship after successful examinations in Photointerpretation, Digital Remote Sensing and Computer Programming, for postgraduate studies on Remote Sensing.

1993

**"Lampadarios" award – Academy of Athens** Received the award for scientific excellence.

1992

**"Vassilios Kontodimos" award – National Technical University of Athens** Award for the best degree at the last semester of the School of Rural & Surveying Engineering

## **OTHER SCIENTIFIC ACTIVITIES**

### **Reviewer in a range of international journals:**

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ISPRS Journal of Photogrammetry and Remote Sensing (Elsevier)  
ISPRS International Journal of Geo-Information (MDPI)  
Remote Sensing (MDPI), Sensors (MDPI), Water (MDPI)  
Clean – Soil, Air, Water (Wiley)  
Access (IEEE)  
Water Resources Management (Springer)  
Journal of Coastal Conservation (Springer)  
Science of the Total Environment (Elsevier)  
Journal of Geographic Information System (Scientific Research Publishing)  
etc

### **Independent Expert Evaluator for FP7 and H2020 proposals (Earth Observation domain)**

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### **Independent Expert Evaluator for STEREO IV proposals**

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## **TEACHING ACTIVITIES**

2003 – CURRENT

**Teaching assistant in the Interdisciplinary-Interdepartmental Programme of Postgraduate Studies "Mathematical standardization in modern technologies and the economy" of the NTUA**

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2006 – CURRENT

**Teaching assistant in the Interdisciplinary-Interdepartmental Programme of Postgraduate Studies "Marine & sea technology and science" of the NTUA**

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1999 – CURRENT

**Teaching assistant in the Interdisciplinary-Interdepartmental Programme of Postgraduate Studies "Geoinformatics" of the NTUA**

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2008 – CURRENT

**Teaching in the Interdisciplinary-Interdepartmental Programme of Postgraduate Studies "Environment & Development" of the NTUA**

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1999 – CURRENT

**Training and education of the students attending the summer exercise courses of Photointerpretation and Remote Sensing of the School of Rural and Surveying Engineering of the NTUA**

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1999 – CURRENT

**Teaching assistant in the "Radiometry & Microwave Remote Sensing" course of the School of Rural and Surveying Engineering of the NTUA**

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1999 – CURRENT

**Teaching assistant in the "Digital Remote Sensing" course of the School of Rural and Surveying Engineering of the NTUA**

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1996 – 1997

**Teaching assistant in the "Special Methods of Digital Remote Sensing" course of the School of Rural and Surveying Engineering of the NTUA**

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1993 – 1996

**Teaching assistant in the "Special Applications of Digital Remote Sensing" course of the School of Rural and Surveying Engineering of the NTUA**

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1993 – CURRENT

**Teaching assistant in the "Photointerpretation & Remote Sensing" and "Special Courses of Remote Sensing" courses of the School of Rural and Surveying Engineering of the NTUA**

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1993 – 1994

**Participated, as teaching assistant, in four continuing education seminars carried out at the NTUA, titled: "G.I.S." and "Digital Image Processing of Remote Sensing Images"**

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