




Panagiotis Partsinevelos

CONTACT

 ppartsinevelos@tuc.gr

 (+30) 6974478823

WORK EXPERIENCE

● **Technical University of Crete** Chania, Greece

Email ppartsinevelos@tuc.gr | Website www.senselab.tuc.gr

Professor in Space Informatics and Autonomous Systems

01/09/2008 – Current

Director of the **Laboratory of Geodesy and Geoinformatics**

Founder of **Senselab Space Informatics** Research Team

Member of the **Board of Directors** of the University

Deputy Director on **Technology Transfer and Innovation** of the University

Director of **Graduate Studies** in Mineral Resources Engineering

Areas of research

- Satellite Remote Sensing, Environmental Monitoring,
- Autonomous Uncrewed Systems - Drones, Design/ Construction/Programming/ Hardware - Software,
- Extreme Environment Robotics, Collaborative Swarm Systems,
- Navigation in GNSS-denied environments,
- Deep CNN on image data,
- Geographic Information Systems, Location-Based Services,
- Emerging Technologies on Exploration of Energy and Raw Materials,
- Innovation and technology transfer

● **FORTH - Institute of GeoEnergy (IG), Foundation for Research and Technology-Hellas**

Collaborating Professor

01/01/2025 – Current

● **Sense Space Informatics P.C.**

Founder, CTO, Spin-off Company

01/01/2019 – Current

- Autonomous mapping systems
- SandMap Educational Platform
- Callaborative Drones for Search and Rescue
- GNSS resilient systems
- Citizen's resilience to robotic and AI platforms

● **Ministry of Rural Development** Athens, Greece

Surveying Engineer

01/01/2007 – 01/04/2008

- Common Agriculture Policy, EU Representative
- Cadastral mapping
- Satellite Remote Sensing
- Geographic Information Systems expert

● **Technological Educational Institute of Athens** Aigáleo, Greece

External Academic Faculty

● **University of Maine** Orono, United States

Researcher & Teaching Assistant

EDUCATION AND TRAINING

Thisio, Greece

● **Postdoctoral researcher in Knowledge Management and GIS** Research Academic Computer Technology Institute, University of Patras Thisio, Greece

United States

● **Ph.D., Dept of Spatial Information Science & Engineering** University of Maine

● **Dipl. Eng. in Surveying Engineering** National Technical University of Athens (NTUA)

HONOURS AND AWARDS

Copernicus masters, 2022

● **Finalists, Federal Ministry 4 Digital and Transport of Germany**

Airbus, Toulouse, 2019

● **1st place Globally. Earth Observation Challenge**

RMIT, Innovation for Refugees, Jordan,

● **1st place Europe, Innovation for Refugees, 2018**

Satellite Masters, Tallin, 2017

● **1st place Globally, Big Data Challenge**

European Satellite Navigation Competition, 2016

● **1st place Globally, University Challenge, for the project Message in a Bubble,**

ESNC European Global Navigation Satellite Systems Agency (GSA), 2016

● **1st place Globally, Drones2GNSS, The most innovative application idea for Galileo Initial Services**

Drones for Good International Award, Dubai, 2015

● **1st in Europe, 3rd globally, Save_ME project**

Copernicus Masters & National Cadastre and Mapping Agency, Berlin, 2015

● **1st Winner globally, Spatio-temporal data visualization Challenge**

Selected Distinctions

2021, Featured paper **International Journal of Geo-Information**, for "Automated Geolocation in Urban Environments Using a Simple Camera-Equipped Unmanned Aerial Vehicle: A Rapid Mapping Surveying Alternative?"

2021, **Journal: Drones**, Highlighted – title story on the landing page, for "Aerial and Ground Robot Collaboration for Autonomous Mapping in Search and Rescue Missions",

2021, **Copernicus Masters**, National representative,

2018-2021, **Galileo Masters**, National representative,

2016, Honor **Prize for Research Innovation & Outreach** presented from the Technical University of Crete.

Commencement talk to the 2016 Graduate students,

2016, 2nd Overall Winner, **European Satellite Masters**, (among 413 expert teams) for the project Drones2GNSS, <http://www.esnc.info/newsletter/2016/nl8/newsletter.html>,

2016, semi-finalists, **DJI Developer Challenge**, <https://developer.dji.com/challenge2016/#6>,

2016, Gold Medal, **Healthcare Business Awards**, smartDrone project, (National), <http://www.healthcareawards.gr/>

2015 Winner, MyGEOSS, **Joint Research Center** EU, Global Earth Observation System of Systems, smart internet applications,

2015 **European Space Agency** and Copernicus Earth Monitoring Competition Finalist,

2015 Infocom World Conference, **National Cadastre and Mapping Agency & Hellenic Association of Mobile Application Companies**, Innovation Award,
2018 NVIDIA GPU Grant research,
International Symposium of Geoinformatics 2022, silver Poster Presentation award,
Future Perspectives of Geoinformation FOR ICM conference, Genoa, Italy, Second position on poster presentation.

Academic and other awards

Greek National Scholarship Foundation, Athens, Greece
Post-Doctorate Research Scholarship,

International Society of Photogrammetry & Remote Sensing,
International ISPRS Robert E. Altenhofen Memorial Scholarship Award

University of Maine, Graduate Trustee Tuition Scholarship, MAINE, USA

Greek National Scholarship Foundation, Athens, Greece, Doctorate Scholarship,

A. Onasis Foundation, Doctorate Scholarship, Greece

Technical Chamber of Engineers (top 1% engineering students of Greece),
Greek National Scholarship Foundation (among 900 students).
2018, finalists, **NBG Business seeds**, Moving ART VR, Greece (National),
2017, Silver Medal, **Healthcare Business Awards**, Drones4all project, (National).

PROJECTS

(Selected)

- Principal Investigator (P.I.). **"Astraios - Analysis of Skills, Training, Research, And Innovation Opportunities in Space"**, funded by the European Union (Horizon Europe), under Grant Agreement No. 101082636.
- P.I. **"Support for Entrepreneurship, Innovation and Maturity Actions for the Exploitation of the Research Activity and the New Products and Services developed at the Technical University of Crete"**, funded by the Operational Programme Human Resources Development Education and Lifelong Learning, co-funded by Greece and the European Union (ESF), MIS 5161068.
- P.I. **"Operational funding of Technology Transfer Structures and Actions at the Technical University of Crete"** funded by the Operational Programme Competitiveness, Entrepreneurship and Innovation 2014-2020, (EPAnEK), co-funded by Greece and the European Union (ERDF), MIS 5136151.
- Co-PI. **"AID4PV: UAV-based decision-making and modular approach to support PV plant diagnosis using EL, RGB, IRT imagery, correlated with electrical data analysis and advanced reporting and geovisualization"**, SOLAR-ERA.NET, 2021-ongoing.
- P.I., **"SandMap"**, co-financed by Greece and the European Union under the call RESEARCH-CREATE-INNOVATE II, 2020-ongoing.
- P.I., **"Drones 2 GNSS: UAV enabled precision measurements in obstructed environments"**, co-financed by Greece and the European Union under the call RESEARCH-CREATE-INNOVATE (project code: T1EDK-03209), 2018-ongoing
- P.I. - Coordinator, **Crete-GIS, an all-inclusive GIS architecture for the island of Crete**, Prefecture of Crete, 2017-ongoing.
- Research Task Leader, **"DESiRES-DESign of DESalination systems based on optimal usage of multiple Renewable Energy Sources"** (ERANETMED_NEXUS-14-049) funded by the ERA-NET Initiative "EURO-MEDITERRANEAN Cooperation through ERANET joint activities and beyond (ERANETMED)".
- Co- P.I., **Development of a prototype real 3-D forming touch table for interactive 3-D Geographical Information System**, "Cooperation 2011" funded from the Operational Program "Competitiveness and Entrepreneurship", cofunded by the European Regional Development Fund, managed by the Greek General Secretariat for Research and Technology 2012-2015, budget: 1,392,900 Euros.
- P.I. - Coordinator, **Information Center for Natura 2000 areas of Crete – WebGIS**, Prefecture of Crete, 2014-2015.
- P.I. - Coordinator, **Mapping of steep Rocks near Palaiochora highway using Unmanned Aerial Vehicles**, Municipality of Palaiochora, Greece, 2015.

- Project Coordinator: **Development of a prototype Unmanned Aerial Swarm Communication System for mapping missions**, Innovation and Entrepreneurship of the University of Crete, Operational Program Education and Learning, Co-funded from the European Union and National Funds, 2015.
- Researcher, **Photogrammetric survey of Fragokastello Castle Archaeological site using Unmanned Aerial Vehicles**, 2015.
- P.I., European Space Agency, Project No: 11655, **Monitoring ground subsidence due to ground and underground mining activities in northern Greece**, 2012.
- Helmholtz-Centre Potsdam - GFZ German Research Centre for Geosciences, **Bilateral Educational Exchange Program Greece-Germany**, 2014.
- FP7-REGPOT-2008-1 Project No: 229885 "**SOFIA: Enhancement of Crete's potential for a dedicated calibration facility for satellite radar altimeters and for tectonic deformation monitoring using continuously operating geodetic arrays**", 2008-2014, Technical University of Crete, Laboratory of Geodesy and Geomatics Engineering.
- FP7, **Early Recognition, Monitoring, and Integrated Management of Emerging, New Technology related Risks**, iNTeg-Risk, Project coordinator: European Virtual Institute for Integrated Risk Management EEIG (EU-VRI), 2008-2013, Total project budget: ~19.3 million €.
- "Cooperation 2011" project ISTRIA (11_SYN_9_13989), **Development of an integrated system for the identification of rock falls on motorways**, funded from the Operational Program "Competitiveness and Entrepreneurship" (co-funded by the European Regional Development Fund (ERDF)) and managed by the Greek General Secretariat for Research and Technology, 2012-2015.
- P.I. - Coordinator, **Spatiotemporal Queries by Sketch in Moving Object Geodatabases**, Technical University of Crete, 2010, Support on Basic research.
- **Anthropogenic Intervention assessment in Greek coastal regions**, co-funded by the European Social Fund and National Resources - (EPEAEK II) ARXIMHDHS.
- **Digital Government on Knowledge Management Over Time-Varying Geospatial Datasets** sponsored by National Science Foundation (NSF).
- **Geospatial Database-Driven Extraction of Information from Digital Aerial Imagery**, sponsored by NSF.

VOLUNTEERING

Social and Political Works

- **Smile of a child**, NPO for the protection of children, live tech lab, 2016,
- **Kara Tepe Lesvos hospitality camp** for refugees, live tech lab, 2016,
- **100 mentors** program,
- National demonstration of **AirScouts**, technical demonstration, 2016,
- **Art display** exhibition organizers, jointly with SafeChania Conference, 2015,
- Technical University of Crete **Open day**, 2014-2026,
- Technical University of Crete **Science Day**, 2014-2026,
- **University Volunteering Actions club** organizers, aid social kitchen for citizens,
- International **Erasmus+**, "Breaking the Code: a Pathway to Success", invited talk and demonstration,
- **TEDx**, Scientific Supervisor, Technical University of Crete, 2017 - 2018,
- **UAV expo**, Athens, 2017,
- **BEST, Board of European Students of Technology**, TUC branch, reviewer, 2016,
- **Erasmus** and **intern** students from France, Poland, Italy, Romania, Portugal,
- Live demonstrations to promote spatial awareness and technology in Geospatial Engineering,
- **BEST, Board of European Students of Technology**, summer school, 2018, "From Space to *Drones*: a synergy for Earth Observation",
- **BEST, Board of European Students of Technology**, summer school, 2017, "Drones vs satellites",

NETWORKS AND MEMBERSHIPS

Positions

- Board of Directors, Technical University of Crete (2023-current),
- Scientific Head of the Technology Transfer Office project, Technical University of Crete (2022-2023),
- Deputy director, Technology Transfer Office, Technical University of Crete (2026),
- Technical University of Crete, elected Cashier of the **Faculty Association** (2019-2022),
- Technical University of Crete, Dept. of Mineral Resources Engineering, **Director of Graduate Studies**, (2024-2026),
- Technical University of Crete, Dept. of Mineral Resources Engineering, **Graduate Studies Committee** member, (2010-current),

- Technical University of Crete, **University's Research Committee**, School's representative, (2020-current),
- Technical University of Crete, **Director, Laboratory of Geodesy and Geoinformatics**, (2024-current),
- Technical University of Crete, **School of Mineral Resources Engineering**, Dean's committee, (2021),
- Technical University of Crete, **University's Senate**, Department's representative, (2009-10),
- Technical University of Crete, **Technical Board** member, (2010-2014),
- School of Mineral Resources Engineering, Board member for **Promotion & Outreach** of the School (2017-2019).

Memberships

- American Society for Photogrammetry and remote Sensing, (**ASPRS**),
- Institute of Electrical and Electronics Engineers, (**IEEE**),
- European Aeronautics Scientific Network (**EASN**),
- European Geosciences Union (**EGU**),
- University of Maine, National Center for Geographic Information and Analysis, (**NCGIA**),
- University of Maine, **NASA** Center of Excellence in Remote Sensing Applications,
- AGILE**, Association of Geographic Information Laboratories in Europe,
- Technical Chamber of Greece, (**TEE**)

PUBLICATIONS 1

Journals (selected)

- Partsinevelos P, Petrakis G, Antonopoulos A, Fotakis T, Bikos S, Charokopos Z, Tripolitsiotis A. Aerial geodetic total station platform for precise active positioning in GNSS-degraded environments. *Automation in Construction*, Elsevier. accepted: 21 November **2024**, (**IF: 10.3**, 20% acceptance rate).
- Michail, Anna; Livera, Andreas; Tziolis, Georgios; Candás, Juan Luis Carús; Fernandez, Alberto; Yudego, Elena Antuña; Martínez, Diego Fernández; Antonopoulos, Angelos; Tripolitsiotis, Achilleas; Partsinevelos, Panagiotis; A comprehensive review of unmanned aerial vehicle-based approaches to support photovoltaic plant diagnosis, *Heliyon*, 2024, Elsevier.
- Petrakis G, Partsinevelos P. Keypoint Detection and Description through Deep Learning in Unstructured Environments. *Robotics*, MDPI. **2023**; 12(5):137.
- Petrakis, Georgios; Antonopoulos, Angelos; Tripolitsiotis, Achilles; Trigkakis, Dimitris; Partsinevelos, Panagiotis; Precision mapping through the stereo vision and geometric transformations in unknown environments, *Earth Science Informatics*, 1-17, **2023**, Springer Berlin Heidelberg.
- Andriopoulou, Nafsika C; Petrakis, Georgios; Partsinevelos, Panagiotis; Twenty thousand leagues under plant biominerals: a deep learning implementation for automatic phytolith classification, *Earth Science Informatics*, 16,2,1551-1562, **2023**, Springer Berlin Heidelberg Berlin.
- Chatziparaschis, Dimitrios; Partsinevelos, Panagiotis; Real-time unmanned aerial vehicle surveying using spatial criteria: a simulated study, *Journal of Applied Remote Sensing*, 17,1,014519-014519, **2023**, SPIE, Society of Photo-Optical Instrumentation Engineers.
- Georgios Petrakis, Panagiotis Partsinevelos. Lunar Ground Segmentation Using a Modified U-Net Neural Network, 25 September **2023**, PREPRINT (Version 1 under review) available at Research Square [<https://doi.org/10.21203/rs.3.rs-3363458/v1>], *Machine Vision and Applications*, Springer (under review).
- Antonopoulos, Angelos; Lagoudakis, Michail G; Partsinevelos, Panagiotis; "A ROS Multi-Tier UAV Localization Module Based on GNSS, Inertial and Visual-Depth Data", *Drones*,6,6,135,2022,MDPI.
- Batsis, G., Partsinevelos, P., Stavrakakis, G., A deep learning and GIS approach for the optimal positioning of wave energy converters, *Energies*, 2021, 14(20), 6773.
- Partsinevelos, Panagiotis; Su, Hongbo; ,Special Section Guest Editorial: Unmanned Systems and Satellites: a Synergy for Added-value Possibilities, *Journal of Applied Remote Sensing*, 22201, 1, 2022, Society of Photo-Optical Instrumentation Engineers,
- Koutroulis, E., Petrakis, G., Agou, V., ... Partsinevelos...Kokolakis, K., Mertikas, S., Site selection and system sizing of desalination plants powered with renewable energy sources based on a web-GIS platform, *International Journal of Energy Sector Management*, 2021.
- Chatziparaschis, Dimitrios; Lagoudakis, Michail G; Partsinevelos, Panagiotis; Aerial and Ground Robot Collaboration for Autonomous Mapping in Search and Rescue Missions, *Drones*, 4,4,79, 2020, Multidisciplinary Digital Publishing Institute.
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- Petrakis, George; Tripolitsiotis, Achilles; Koutroulis, Eftichios; Hristopoulos, Dionissios; Halouani, Nabila; Naceur, Arij Ben; Partsinevelos, Panagiotis; Geo-informatics for optimal design of desalination plants using renewable energy sources: the DES2iRES platform paradigm, *Arabian Journal of Geosciences*, 13,19,1-11, 2020, Springer International Publishing.

- Mertikas, S., Partsinevelos, P., Tripolitsiotis, A., Kokolakis, C., Petrakis, G., Frantzis, X. Validation of Sentinel-3 OLCI integrated water vapor products using regional GNSS measurements in Crete, Greece, (2020) Remote Sensing, 12 (16), art. no. 2606, DOI: 10.3390/RS12162606.
- Trigkakis, D., Petrakis, G., Tripolitsiotis, A., Partsinevelos, P., Automated Geolocation in Urban Environments Using a Simple Camera-Equipped Unmanned Aerial Vehicle: A Rapid Mapping Surveying Alternative?, (2020) ISPRS International Journal of Geo-Information, 9 (7), art. no. 425, DOI: 10.3390/ijgi9070425.
- Partsinevelos P, Chatziparaschis D, Trigkakis D, Tripolitsiotis A. (2020) A Novel UAV-Assisted Positioning System for GNSS-Denied Environments. Remote Sensing; 12(7):1080.
- Panagiotis Partsinevelos, Zach Agioutantis, Achilleas Tripolitsiotis, Nathaniel Schaefer (2017). A Review of Unmanned Aerial Vehicles, Citizen Science, and Interferometry Remote Sensing in Landslide Hazards: Applications in Transportation Routes and Mining Environment. In: G.P. Petropoulos and T. Islam (eds) Remote Sensing of Hydrometeorological Hazards, CRC Press, Taylor and Francis, 2017, p. 549.
- Mouslopoulou, V., Begg, J., Fülling, A., Moraetis, D., Partsinevelos, P., Oncken, O. Distinct phases of eustatic and tectonic forcing for late Quaternary landscape evolution in southwest Crete, Greece, (2017) Earth Surface Dynamics, 5 (3), pp. 511-527.
- Papadogiorgaki, M., Partsinevelos, P., Adaptive DTM generalization methods for tangible GIS applications (2017) Earth Science Informatics, pp. 1-12.
- Tripolitsiotis, A., Prokas, N., Kyritsis, S., Dollas, A., Papaefstathiou, I., Partsinevelos, P. Dronesourcing: a modular, expandable multi-sensor UAV platform for combined, real-time environmental monitoring (2017) International Journal of Remote Sensing, 38 (8-10), pp. 2757-2770.
- Kalogerakis, N., Karkanorachaki, K., Kalogerakis, G.C., Triantafyllidi, E.I., Gotsis, A.D., Partsinevelos, P., Fava, F. Microplastics generation: Onset of fragmentation of polyethylene films in marine environment mesocosms (2017) Frontiers in Marine Science, 4 (MAR), art. no. 84.

- Mertikas, S. P., A. Daskalakis, I. N. Tziavos, O. B. Andersen, G. Vergos, A. Tripolitsiotis, V. Zervakis, X. Frantzis, P. Partsinevelos (2012). **Altimetry, Bathymetry and Geoid variations at the Gavdos permanent Cal/Val Facility**, Advances in Space Research, Elsevier, <http://dx.doi.org/10.1016/j.asr.2012.10.02>.
- Mertikas S. P., A. Daskalakis, I. N. Tziavos, G. S. Vergos, X. Frantzis, A. Tripolitsiotis, P. Partsinevelos, D. Andrikopoulos & V. Zervakis (2011), **Ascending and Descending Passes for the Determination of the Altimeter Bias of Jason Satellites using the Gavdos Facility**, Marine Geodesy, 34:3-4, 261-276, doi: 10.1080/01490419.2011.584837.
- Partsinevelos P., (2011), **Registering randomly oriented scenes through moving object attributes**, International Journal of Geographical Information Science, 25:11, 1793-1807, doi: 10.1080/13658816.2011.552064.
- Mertikas, S.P., R. T. Ioannides, I. N. Tziavos, G. S. Vergos, W. Hausleitner, X. Frantzis, A. Tripolitsiotis, P. Partsinevelos, D. Andrikopoulos (2010), Statistical Models and Latest **Results in the Determination of the Absolute Bias for the Radar Altimeters of Jason Satellites using the Gavdos facility**. Marine Geodesy, 33: 1, 114-149, doi: 10.1080/01490419.2010.488973.
- Miliareisis G., P. Partsinevelos, (2010), **Terrain Segmentation of Egypt from Multi-temporal Night LST Imagery and Elevation Data**, in Remote Sensing Journal, 2, 2083-2096 p.,doi:10.3390/rs2092083.
- Partsinevelos P. & N. Tryfona, **"Handling High-level Queries in Location-based Services for User Groups"**, in Geoinformatica Journal, vol. 10, no 2, pp. 213-234(22), Springer, 2006.
- Partsinevelos, P. (2008), **Multi-Modal Comparison of Object Trajectories"**, in Journal of Spatial Sciences, 2008.
- Partsinevelos P., P. Agouris & A. Stefanidis, **"Reconstructing Spatiotemporal Trajectories from Sparse Data"**, in Journal of Photogrammetry and Remote Sensing (PE&RS), vol. 60, no 1, pp. 3-16 (14), Elsevier Science, 2005.

PUBLICATIONS 2

Books/Chapters/Editorial volumes

- Mertikas, Stelios P; Partsinevelos, Panagiotis; Mavrocordatos, Constantine; Maximenko, Nikolai A; Environmental applications of remote sensing, Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering, 107-163, 2021, Butterworth-Heinemann
- Partsinevelos, P., Kyriakidis, P., and Kavouras, M., Eds., (2021): Proceedings of the 24th AGILE Conference on Geographic Information Science, AGILE: GIScience Series; Openaccess proceedings of the Association of Geographic Information Laboratories in Europe, Copernicus Publications, 2.
- Partsinevelos, P., Kyriakidis, P., and Kavouras, M., Eds., (2020): Proceedings of the 23rd AGILE Conference on Geographic Information Science, AGILE: GIScience Series; Openaccess proceedings of the Association of Geographic Information Laboratories in Europe, Copernicus Publications, 1, 1, <https://doi.org/10.5194/agile-giss-1-1-2020>.

PUBLICATIONS 3

International Conferences (more publications in full CV)

Georgios Batsis, Georgios Petrakis, Georgios Stavrakakis, Panagiotis Partsinevelos, Optimal positioning of wave energy converters using deep learning and GIS, AGILE 2021, 24th AGILE Conference on Geographic Information Science, Virtual, Poster presentation.

·Antonopoulos Angelos, Charokopos Zisis, Fotakis Tzani, Partsinevelos Panagiotis, Design and implementation of a UAS localization and geolocation module, AGILE 2021, 24th AGILE Conference on Geographic Information Science, Virtual, Poster presentation.

·Nafsika C. Andriopoulou and Panagiotis Partsinevelos, Digital surface reconstruction of biominerals under a quantitative perspective: implications in the taxonomy and preservation of archaeomalacological material, Conference: On shifting grounds - the study of archaeological practices in a changing world, 3-5 Oct. 2019, Rethymnon, Crete, Greece.

·Dimitrios Trigkakis, Dimitris Chatziparaschis, George Petrakis, Achilles Tripolitsiotis and Panagiotis Partsinevelos, A Monocular SLAM Method for Point Cloud Geolocation in GPS-Denied Environments using UASs, The 22nd AGILE International Conference on Geographic Information Science, Geographic Information Representation, Retrieval and Visualization, 2019, Limassol, Cyprus.

·Nafsika C. Andriopoulou, Georgios Petrakis and Panagiotis Partsinevelos, Phytolith classification using deep learning: implementation of a U-Net neural network for morphotype image-segmentation, International Conference (virtual) "12th International Meeting for Phytolith Research", 6-11 Sept. 2021, Kiel, Germany, in the frame of the 27th annual meeting of the European Association of Archaeologists (EAA).

·Nafsika C. Andriopoulou and Panagiotis Partsinevelos, Photogrammetry for cultural heritage: digital surface reconstruction of molluscan exoskeletons from Eastern Mediterranean, EUROMED International Conference (virtual) on Digital Heritage, 2-5 Nov. 2020, Cyprus.

·Mertikas, S.P., Daskalakis, A., Koutroulis, Ef., Tripolitsiotis, A., Partsinevelos, P., Preparatory works for the altimeter calibration of the Sentinel-3 mission using the dedicated calibration site in Crete and Gavdos (2011) Proceedings of SPIE - The International Society for Optical Engineering, 8175, art. no. 1.

·Syranidou, E., Kalogerakis, G.C., Karkanorachaki, K., Gotsis, A.D., Partsinevelos, P., Kalogerakis, N., Fragmentation and biodegradation rates of weathered plastics in the marine environment - The new challenges (2017) 40th AMOP Technical Seminar on Environmental Contamination and Response, pp. 364-380.

Economou, N., Kritikakis, G., Tripolitsiotis, A., Partsinevelos, P., Vlachou, G., Agioutantis, Z., Vafidis, A., Seismic monitoring for automatic rockfall detection along transportation corridor (2015) 8th Congress of the Balkan Geophysical Society, BGS 2015

·Zach Agioutantis, Joe Robertson, Greg Gollaher, Nathaniel Schaefer, Jhon Silva, Achilleas Tripolitsiotis, Panagiotis Partsinevelos, Permanent scatterer radar interferometry as an effective structure deformation monitoring tool over undermined areas, 2019, Seventh International Conference on Remote Sensing and Geoinformation of the Environment, Cyprus (RSCy2019), International Society for Optics and Photonics

·GP Petropoulos, V Anagnostopoulos, D Hristopulos, P Partsinevelos, 2019, An open source land biosphere extended for use with EO data for deriving spatiotemporally key biophysical parameters, Geophysical Research Abstracts, EGU 2019, Vienna.

·A Tripolitsiotis, G Petrakis, D Hristopulos, N Halouani, E Koutroulis, A.B. Naceur, P. Partsinevelos, 2019. DESiRES: A web-GIS platform to support public authorities and investors in strategic planning of desalination plants powered by renewable energy sources, Geophysical Research Abstracts, EGU 2019, Vienna.

·NC Andriopoulou, D Michailidis, GE Christidis, P Partsinevelos, 2019, 3D representation of biominerals integrating microscopy and photogrammetry: implications in geoarchaeology, 2019, Geophysical Research Abstracts, EGU 2019, Vienna.

·P Partsinevelos, S Simou, 2019. Detection of geometric deformations on maritime technical structures through Unmanned Aerial Systems, 2019, Geophysical Research Abstracts, EGU 2019, Vienna.

·E Koutroulis, G Petrakis, D Hristopulos, A Tripolitsiotis, N Halouani, ..., P. Partsinevelos, 2018, Geo-Informatics for Optimal Design of Desalination Plants Using Renewable Energy Sources: The DESiRES platform paradigm, (2019) Advances in Science, Technology and Innovation, pp. 53-55.

Zormpas, A., Moirogiorgou, K., Kalaitzakis, K., Plokamakis, G.A., Partsinevelos, P., Giakos, G., Zervakis, M., Power transmission lines inspection using properly equipped Unmanned Aerial Vehicle (UAV), (2018) IST 2018 - IEEE International Conference on Imaging Systems and Techniques, Proceedings, art. no. 8577142.

Stefanidis A., P. Partsinevelos, P. Agouris & P. Doucette "**Summarizing Video Datasets in the Spatiotemporal Domain**", Proceedings DEXA 2000, Advanced Spatial Data Management Workshop (ASDM) 2000, IEEE Press London, UK, 2000.

·Partsinevelos P., P. Agouris & A. Stefanidis "**Modeling Movement Relations in Dynamic Urban Scenes**", International Archives of Photogrammetry & Remote Sensing, Vol. XXXIII, Amsterdam, 2000.

·Stefanidis A., P. Partsinevelos & P. Agouris "**Using Lifelines for Spatiotemporal Summaries**", DG.O 2001 Proceedings, National Conference on Digital Government Research, Los Angeles, CA, 2001.

·Stefanidis A., P. Partsinevelos, K. Eickhorst & P. Agouris "**Spatiotemporal Lifelines in Support of Video Queries**", Proceedings DEXA Workshop 2001, Query Processing and Multimedia Issues in Distributed Systems (QPMIDS), Munich, 2001.

·Partsinevelos P., A. Stefanidis & P. Agouris “**Automated Spatiotemporal Scaling for Video Generalization**”, IEEE-ICIP 2001, Thessaloniki, Greece, 2001.

·Stefanidis A., P. Agouris, P. Partsinevelos “**Summarizing the content of motion imagery datasets**”, International Archives of Photogrammetry & Remote Sensing, Corfu, Greece, 2002.

·Stefanidis A., P. Agouris, P. Partsinevelos “**Spatiotemporal Helixes for Event Modeling**”, DG.O 2002 Proceedings, National Conference on Digital Government Research, Los Angeles, CA, 2002.

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Panagiotis Partsinevelos, Christina Kallimani, Achilleas Tripolitsiotis, (2015). **Multi-temporal change image inference towards false alarms reduction for an operational photogrammetric rockfall detection system**, Third International Conference on Remote Sensing and Geoinformation of the Environment, International Society for Optics and Photonics.

Achilleas Tripolitsiotis, Antonis Daskalakis, Stelios Mertikas, Dionysios Hristopoulos, Zach Agioutantis, Panagiotis Partsinevelos, (2015). **Detection of small-scale rockfall incidents using their seismic signature**, Third International Conference on Remote Sensing and Geoinformation of the Environment, International Society for Optics and Photonics.

Panagiotis Partsinevelos, Mary Sartzetaki, Apostolos Sarris, (2015). **Spatiotemporal conceptual platform for querying archaeological information systems**, EGU General Assembly Conference Abstracts, Vol. 17.

Panagiotis Partsinevelos, Zacharias Agioutantis, Achilles Tripolitsiotis, Chrysanthos Steiakakis, Stelios Mertikas, (2015). **Harvesting rockfall hazard evaluation parameters from Google Earth Street View**, EGU General Assembly Conference Abstracts, Vol. 17.

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·Stefanidis A., K. Eickhorst, P. Agouris & P. Partsinevelos “**Modeling and Comparing Change using Spatiotemporal Helixes**”, ACM-GIS, ACM Press, pp. 86-93, New Orleans, LA, 2003.

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·Kiousopoulos J., P. Partsinevelos, M. Pigaki, N. Tsiougou & I. Veizi, (2008), “**Anthropogenetic Intensity Indicator; Measuring Human Impact Along Coastal Areas**”, in Inter. Conf. Studying, Modeling and Sense Making of Planet Earth, Mytilene, Lesvos, Greece, 1 – 6 June, 2008.

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Partsinevelos Panagiotis, Natassa Nikolakaki, Periklis Psillakis, George Miliarexis, and Michail Xanthakis, (2014), “**Reducing uncertainty on satellite image classification through spatiotemporal reasoning**”, EGU General Assembly Conference 2014.

Partsinevelos Panagiotis and Maria Papadogiorgaki, (2014), **Digital terrain model generalization incorporating scale, semantic and cognitive constraints**, EGU General Assembly Conference 2014 (Accepted-Presented).

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Partsinevelos Panagiotis and Manolis Perakakis, (2014). **A neuromorphic approach to satellite image understanding**, EGU General Assembly Conference 2014 (Accepted-Presented).

Partsinevelos Panagiotis, Stylianos Mertikas, Zachos Agioutantis, V. Tsioukas, Achilles Tripolitsiotis, and Panagiotis Zervos (2014), **Rockfall detection along road networks using close range photogrammetry**, 2nd International Conference on Remote Sensing and Geoinformation of Environment, 7-10 April 2014, Paphos, Cyprus.

Partsinevelos P., A. Tzes, S. Manesis, I. Agadakos and A. Tripolitsiotis, (2014), **Architecture of a tangible 3-D forming table for interactive spatial decision support systems**, 2nd International Conference on Remote Sensing and Geoinformation of Environment, 7-10 April 2014, Paphos, Cyprus.

Partsinevelos P., I. Agadacos, N. Agadacos, S. Kyritsis, M. Perakakis, V. Athanasiou, (2014). **UAV Positional Synergy using Wifi RSSI**, 2nd International Conference on Remote Sensing and Geoinformation of Environment, 7-10 April 2014, Paphos, Cyprus.

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Kovaios, G. Andrikopoulos, I. Arvanitakis, O. Tsilomitrou, A. Tripolitsiotis, P. Partsinevelos, S. Manesis, A. Tzes, (2014). **Implementation and control of a robotic platform for a 3-dimensional geographic information system**, SafeRhodes 2014 National Conference, (in Greek).

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·Partsinevelos P. & G. Miliarexis (2009), "**Spatiotemporal filtering of multi-temporal images: application on MODIS sea surface temperature (SST) imagery**", 5th International Workshop on the Analysis of Multi-temporal Remote Sensing Images, Groton, CT, 2009.

·Partsinevelos P., "**Orientation independent scene registration through multiple moving object topology**", 5th International Workshop on the Analysis of Multi-temporal Remote Sensing Images, Groton, CT, 2009.

·Mertikas, S. P., A. Daskalakis, W. Hausleitner, I.N. Tziavos, G.S. Vergos, V. Zervakis, P. Partsinevelos, X. Frantzis, D. Andrikopoulos, A. Tripolitsiotis (2010). **Calibration of satellite radar altimeters at Gavdos Cal/Val facility using three different methodologies**, Proceedings of European Space Agency Living Planet 2010, Bergen, Norway, 28 Jun–2 Jul, 2010, doi: 10.1117/12.865991.

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·Agadacos, Y., Makantasis, K., Partsinevelos, P., Papadakis, G., Doulamis, A., (2013) **Safe Urban Growth: An Integrated ICT Solution for Unstandardized and Distributed Information Handling**, International Workshop on Smart City and Ubiquitous Computing Applications - June 4th, 2013.

Partsinevelos P. & N. Tryfona "**Abstract Level Queries in Location-Based Services**", Technical Report No. TR2004/11/03, Research Academic Computer Technology Institute, November 2004.

Partsinevelos P., D. Pfoser & N. Tryfona "**The Space and Time Ontology in Location-based Services**", Technical Report No. TR2004/06/03, Research Academic Computer Technology Institute, June 2004.

Veizi I., N. Tsiougou, C. Kouki, D. Matsa, G. Tsiougos, N. Lakafosis, M. Zarras, G. Miliarexis, P. Partsinevelos, M. Pigaki, (2007), "**Anthropogenetic intensity, a new indicator to measure coastal man-made volume, case study: Navpaktos -Aetolia-Acarnania, Greece**", Future Perspectives of GeoInformation for Integrated Coastal Management, GISIG/ICCOPS/ECOImagine, Genoa, 21-23 November, 2007.

Mertikas, S. P. , R. Ioannides, X. Frantzis, P. Partsinevelos, A. Tripolitsiotis (2009), "**Determination of the Jason altimeter bias using the Gavdos calibration site**", 3rd Coastal Altimetry Workshop, Frascati, Italy, 17-18 September.

Mertikas, S. P. , R. Ioannides, A. Tripolitsiotis, X. Frantzis, P. Partsinevelos (2009), "**Recent Developments in the Gavdos calibration site**", Cryosat-2 and ICESAT Meeting, Reykjavik, Iceland, 23-26 June, 2009, Oral Presentation.

Mertikas, S. P. , R. Ioannides, X. Frantzis, P. Partsinevelos, A. Tripolitsiotis (2009), "**Recent Results for the Estimation of the Altimeter Bias For the Jason satellites Using Gavdos**", Ocean Surface Topography Science Team Meeting, Seattle, Washington, USA, 22-24 June, 2009, Poster and Oral Presentation.

Eirini Papadaki; Achilleas Tripolitsiotis; Chrysanthos Steiakakis; Zacharias Agioutantis; Stelios Mertikas, Panagiotis Partsinevelos, Pavlos Schilizzi, (2013), **Land movement monitoring at the Mavropigi lignite mine using spaceborne D-InSAR** ", Proc. SPIE 8795, First International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2013), 87951A (August 5, 2013); doi:10.1117/12.2027100; <http://dx.doi.org/10.1117/12.2027100>.

Graduate Courses

- Unmanned Systems and Space Technologies
- Geotechnologies and Geographic Information Systems
- Spatial Information Systems
- Special Topics on Computational Analysis in Geosciences
- Remote Sensing of the Environment
- Remote Sensing and Digital Image Processing
- Detection and identification of mineral resources
- Methodology in Scientific Research
- Modern methodologies for mapping historical monuments

Undergraduate Courses

- Remote Sensing of the Environment
 - Introduction in Computer Systems for Mineral Resources Engineers
 - Technical Geodesy
 - Technical Drawing
 - Special Topics in Remote Sensing
 - Topography – Surveying
- Marine structures, Interdepartmental (co-instructor)
Graduate Teaching Assistant: Digital and Analytical Photogrammetry

EDITORIAL WORK

Editor

- **Editorial Board Member:** Journal of Applied Remote Sensing JARS, SPIE, the international society for optics and photonics, USA.
- **Lead guest Editor**, Special Issue "**Unmanned Aerial Systems and Geoinformatics**", A special issue of *ISPRS International Journal of Geo-Information* (ISSN 2220-9964).
- **Lead guest Editor**, Special Issue "**Unmanned Systems and Satellites: A Synergy for Added-Value Possibilities**" (April-June 2022). Journal of Applied Remote Sensing, the international society for optics and photonics, USA. Guest Editors: Panagiotis Partsinevelos and Hongbo Su
- **Editorial Board Member:** *Informatics* (ISSN 2227-9709), Remote Sensing, MDPI
- **Editor, scientific chair**, Copernicus Publications, AGILE 2021,
- **Editor, scientific chair**, Copernicus Publications, AGILE 2020.

Refereeing

- **ACM** Geographic Information Systems International Conference, ACM,
- & **GeoInformatica** Journal, Springer,
- Sensors Journal, MDPI,
- Environmental Modelling & Software - Journal - Elsevier
- Journal of Electronic Imaging, SPIE,
- Nonlinear Processes in Geophysics Journal, EGU,
- Computers and Geosciences Journal, Elsevier,
- Journal of Photogrammetry and Remote Sensing, ISPRS,
- Remote Sensing, MDPI,
- Drones, MDPI,
- Robotics, MDPI,
- Aerospace, MDPI,
- International Journal of GeoInformation, ISPRS, MDPI,
- Sustainability, MDPI,
- Sensors, MDPI,
- Hydrology, MDPI,
- Applied Sciences, MDPI,
- Journal of Applied Remote Sensing, SPIE,
- Springer Nature, Computer Science

Conferences

- ISAG 2024, International Symposium of Applied Geoinformatics
- IWEG 2020, International Workshop on Environment and Geoscience
- GISTAM 2020,
- AGILE 2021,
- AGILE 2020,
- Bulletin of the Geological Society of Greece, 13th International Congress, Chania, 2013,
- SafeRhodes 2014, Conference,

- SafeChania 2015, International Conference,
- SafeKozani 2018,
- SafeCorfu 2020,
- SafeGreece 2021.

International Society for Photogrammetry and remote Sensing, 23rd Congress, Prague, 12-19 July 2016,

INNOVATION PROJECTS AND PRODUCTS

- **SandMap:** Interactive Tangible GIS upon sand formations,
- **SmartDrone:** Integration of a smartphone with a mobile UAV,
- **Eye-tracking navigation:** Eye-tracking moving vehicle,
- **Drones2GNSS:** UAV assisted GPS precision enhancement,
- **Message in a Bubble:** Communication through virtual messages,
- **RescueNET:** Collaborative volunteering search and rescue,
- **CybEarth:** Augmented visualization of satellite data on earth scenes,
- **Awear:** Wearable sensors for environmental monitoring,
- **Drones4SAR:** Real time geolocation for SAR,
- **SafAIR:** A citizen platform for air quality information,
- **Vegadrone:** Novel UAV for seeding biodiversity,
- **More than 40 innovation products in Proof of Concept levels.**

INVITED TALKS

- Invited Talk, **Tunisia**, Satellite products on offshore energy, 2018,
- Invited Talk, **Brussels**, MY GEOSS Final Event: Open Data, Open Source, Open Minds", December 2016,
- Invited Talk, Satellite Masters, **Madrid**, October 2016,
- Talk, Copernicus Masters, First Person GIS idea (FPGIS), **Berlin**, October 2015,
- Funded demonstration, **European Space Solutions** meeting, Bringing space to Earth, SenseLAB space Research, 30 May – 03 June 2016, **The Hague**,
- Drone Expo Greece 2016, Invited Demonstration Stand, **Athens**, 2016,
- Invited Demonstration, National Robotics Conference, **Thessaloniki**, 2016,
- Invited Talk, 2nd Business Continuity Conference, Athens, 2016,
- Invited Talk, Infocom Mobile Conference, Athens, 2016,
- Keynote speaker, Open GIS Symposium and Summer School 2015, **Spatial consciousness ... the missing link?**, 20th - 24th July, 2015, **Crete**, Greece,
- Talk, Cerege, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement, Senselab research presentation, France, **Marseille**, 14 September 2015,
- Talk, Copernicus Masters, **First Person GIS idea** (FPGIS), **Berlin**, October 2015,
- Presentation, Anwendungszentrum GmbH Oberpfaffenhofen, DLR, **Adaptive, Augmented Visualization of Spatial Temporal and Spectral EO Data upon Dynamic Mobile Device Views**, Germany, **Munich**, 30 September 2015,
- Invited Talk, Erasmus Theodoropoulos School, **Space in the service of Earth understanding**, November 2015,
- Talk, GFZ, **Geo-cognition discussions: Bridging the gap between geospatial information complexity and human comprehension**, Germany, **Potsdam**, 6 November 2014,

SHORT CV - SUMMARY

· **Dr. Partsinevelos** is a Professor in the areas of **Space Informatics** including **Geographic Information Systems** (GIS), Satellite **Remote Sensing** and **Uncrewed Aerial Systems** (UAVs) in the School of Mineral Resources Engineering (MRED) in the Technical University of Crete (TUC). He currently serves as an elected member of the Board of Trustees in TUC, Deputy Director of the Innovation Committee of TUC, main member of the Research Committee of TUC, Director of the Graduate studies in MRED, and Director of the Laboratory of Geodesy and Geomatics Engineering. He received his PhD in **Spatial Information Science & Engineering** from the University of Maine, part of the **National Center for Geographic Information and Analysis** (NCGIA) of USA and in a NASA sponsored center of excellence Remote Sensing Laboratory. He holds a Dipl. Eng. degree in **Surveying Engineering** from the National Technical University of Athens and has worked as a postdoctoral researcher in the Academic and Research Computer Technology Institute in Greece and as a GIS expert in the public sector. Besides his scientific publications, editorial positions and research projects as a coordinator, Dr. Partsinevelos has contributed significantly to the fields of **innovation and technology transfer**. Notably, he has served as the national representative of the Galileo and Copernicus Masters competitions in the realm of space innovation. Dr. Partsinevelos directs the **Space Informatics Research Team, SenseLab**, comprising of more than 30 multi-disciplinary members.