

## PERSONAL INFORMATION

**Panagiotis Partsinevelos**

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## WORK EXPERIENCE

2009–Present

**Associate Professor**

Technical University of Crete, Chania (Greece)

- Computational Analysis in Spatial Information Science
- Space Informatics
- Unmanned Aerial Systems

Research Interests - Expertise:

- Unmanned Aerial Vehicles for mapping/ communication/ collision avoidance,
- Graphical user interfaces in spatial databases/ queries by sketch/ gestural user interfaces,
- Spatiotemporal data modeling/ topology/ scene similarity/ trajectory behavioral analysis,
- Multi-temporal satellite image processing/ classification novel algorithms/ monitoring,
- Location based services/ e-Government applications, Smart Cities, Space technology,
- GIS tangible systems/ 3D Visualization/ Mobile applications/ Crowdsourcing,
- Neuro-morphing and cognitive processes in image processing,
- Neural networks/ Self-organizing map generalization,
- Optimization of belt conveyor location in mines/ Image processing in mineral liberation
- Video processing for Natural Hazards monitoring, Space, geology, agriculture, environmental, mining, global change, architecture, archaeology, neuroscience applications.

2006–2008

**Visiting Professor**

Technological Educational Institute of Athens, Dept. of Topography, Athens (Greece)

- Special Topics on Remote Sensing

2006–2008

**Surveying Engineer**

Ministry of Rural Development, Athens (Greece)

- Supervision of Infrastructure and Public Projects

2005–2006

**Visiting Professor**

Technical University of Crete (Greece)

- Remote Sensing
- Geodesy

2003–2004

**Postdoctoral researcher**

Research Academic Computer Technology Institute, Thisio (Greece)

- Knowledge Management in Geographic Information Science

1998–2002

**Research Assistant**

University of Maine (United States)

- Digital Image Processing
- Photogrammetry
- Remote Sensing
- GIS
- Neural Networks

## EDUCATION AND TRAINING

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1998–2003 **PhD in Spatial Information Science & Engineering**

University of Maine, Orono (United States)

Focus on GIS, Image Processing, Neural Networks, Remote Sensing, Minor in Civil Engineering

**Diploma Surveying Engineering (5 year program)**

National Technical University of Athens, Athens (Greece)

## PERSONAL SKILLS

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Mother tongue(s) Greek

Foreign language(s) English

Communication skills - Excellent communication experience gained through my professorship, coordination of research projects and as a Regional Manager in Galileo Masters for Greece.

Organisational / managerial skills - Excellent organisational/managerial experience gained through the direction of my Research Laboratory - SenseLab, managing research projects and as a Regional Manager in Galileo Masters for Greece and various other conferences, competitions, etc..

Digital skills - Programming in various environments, software development,  
- Many specialized software for remote sensing, GIS, image processing, photogrammetry.

Other skills - Drone operator

ADDITIONAL INFORMATION

Honours and awards

- 2019, 1st place globally, AIRBUS **Global Earth Observation challenge Airbus Defense and Space**, deep learning in schools of Africa, partner with TaQadam,
- 2018, RMIT Innovation for Refugees, finalists for Drones4Refugees project,
- 2017, 1st place Globally, European Space Oscars, Satellite Masters, Big Data Challenge,
- 2017, 3rd place Globally, European Commission Government Earth Observation Contest,
- 2017, Silver Medal, Healthcare Business Awards, Drones4all project, (National),
- 2016, Honor Prize for Research Innovation & Outreach presented from the Technical University of Crete. Commencement talk to the 2016 Graduate students,
- 2016, 1st place Globally, European Satellite Navigation Competition, University Challenge, for the project Message in a Bubble, a novel viral communication platform, <http://www.esnc.info/index.php?anzeige=uni16.html>,
- 2016, 1st place Globally, ESNC European Global Navigation Satellite Systems Agency (GSA), The most innovative application idea for Galileo Initial Services for the project Drones2GNSS, <http://www.esnc.info/index.php?anzeige=gsa16.html>,
- 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, 1st in Europe, 3rd globally, Drones for Good International Award, Save\_ME project, (among 1017 teams, 165 countries), <https://dronesforgood.ae/finals/save-me-smartphone-uav-emergency-response>,
- 2016, shortlisted, 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 1st Winner, Copernicus Masters & National Cadastre and Mapping Agency (NCMA) Spatio-temporal data visualization Challenge,
- 2015 European Space Agency and Copernicus Earth Monitoring Competition Finalist,
- 2015 Infocom World Conference, National Cadastre and Mapping Agency & Association of Mobile Application Companies, Innovation Award

Hellenic

Undergraduate and Graduate Awards and Scholarships

2003-2004 Greek National Scholarship Foundation, Athens, Greece, Post-Doctorate Research Scholarship,

2000 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

Several undergraduate scholarships and awards from

- National Technical University of Athens,
- Kondodimos prize (among 300 students),
- Technical Chamber of Engineers (top 1% engineering students of Greece),
- Greek National Scholarship Foundation (among 900 students).

#### Research Projects

- Principal Investigator, **Drones2GNSS** the new generation of Surveying through UAVs, funded by GSRT, 2018 - ongoing.
- Principal Investigator - 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 ERANET Initiative “EURO-MEDITERRANEAN Cooperation through ERANET joint activities and beyond (ERANETMED)”.
- Co- Principal Investigator, **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.
- Principal Investigator - Coordinator, **Information Center for Natura 2000 areas of Crete – WebGIS**, Prefecture of Crete, 2014-2015.
- Principal Investigator - 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.
- Principal Investigator, 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.

- Principal Investigator - 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.

## Publications

## International Journals

- J1. 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.
- J2. 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.z
- J3. Partsinevelos, P. (2008), "**Multi-Modal Comparison of Object Trajectories**", in Journal of Spatial Sciences, 2008.
- J4. 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.
- J5. Miliarsis 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.
- J6. 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.
- J7. 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.
- J8. Mitraha Z., N. Chrysoulakis, Y. Kamarianakis, P. Partsinevelos and A. Tsouchlaraki, (2012), **Improving the estimation of urban surface emissivity based on sub-pixel classification of high resolution satellite imagery**, Remote Sensing of the Environment Remote Sensing of Environment (2012), pp. 125-134, doi: 10.1016/j.rse.2011.06.025.
- J9. Partsinevelos P., E. Th. Stamboliadis, and K. Makantasis, (2012), **Image based mineral liberation simulation incorporating experimental grinding models**, Canadian Metallurgical Quarterly, Maney Publishing, doi: 10.1179/1879139512Y.0000000025.
- J10. Petropoulos, G., Partsinevelos, P., Mitraha, Z., (2012), **Change detection of surface mining activity and reclamation based on a machine learning approach of multi-temporal Landsat TM imagery**, Geocarto International.
- J11. 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> .
- J12. Tripolitsiotis, A., Chrysanthos Steiakakis, Eirini Papadaki, Zacharias Agioutantis, Stelios Mertikas, Panagiotis Partsinevelos, (2014), **Complementing geotechnical slope stability and land movement analysis using satellite DInSAR**, Central European Journal of Geosciences, Versita, pp. 57-66.
- J13. Partsinevelos P., Papadakis, K., and Makantasis, K., (2013), **Spatiotemporal graph queries on geographic databases under a conceptual abstraction scale**, Geo-spatial Information Science, Taylor and Francis.
- J14. Roumpos, C., Panagiotis Partsinevelos, Zacharias Agioutantis, Kostas Makantasis, Antigoni Vlachou, (2014), **The optimal location of the distribution point of the belt conveyor system in continuous surface mining operations**, Simulation Modelling Practice and Theory, Elsevier, pp. 19-27.
- J15. Partsinevelos, P., Nikolakaki N., Psillakis, P, Miliarsis, G, Xanthakis, M, (2015),

**Landcover change modeling through visualization and classification enhancement of multi-temporal imagery**, Global Nest Journal, Volume 17, Issue 2, 2015, Pages 271-280.

- J16. Partsinevelos P., G. Kritikakis, N. Economou, Z. Agioutantis, A. Tripolitsiotis, S. Mertikas, A. Vafidis, (2016). Integration of seismic and image data processing for rockfall monitoring and early warning along transportation networks, *Natural Hazards*, doi: [10.1007/s11069-016-2462-2](https://doi.org/10.1007/s11069-016-2462-2).
- J17. Kyristis, S., Antonopoulos, A., Chaniarakis, T., Stefanakis, E., Linardos, C., Tripolitsiotis, A., & Partsinevelos, P. (2016). Towards autonomous modular UAV missions: The detection, geo-location and landing paradigm. *Sensors (Switzerland)*, 16(11) doi:10.3390/s16111844.
- J18. 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.
- J19. Papadogiorgaki, M., Partsinevelos, P., Adaptive DTM generalization methods for tangible GIS applications (2017) *Earth Science Informatics*, pp. 1-12. Article in Press.
- J20. Tripolitsiotis, A., Prokas, N., Kyristis, 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.
- J21. 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.

**International Conferences**

- C22. 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.
- C23. Partsinevelos P., P. Agouris & A. Stefanidis "**Modeling Movement Relations in Dynamic Urban Scenes**", International Archives of Photogrammetry & Remote Sensing, Vol. XXXIII, Amsterdam, 2000.
- C24. 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.
- C25. 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.
- C26. Partsinevelos P., A. Stefanidis & P. Agouris "**Automated Spatiotemporal Scaling for Video Generalization**", IEEE-ICIP 2001, Thessaloniki, Greece, 2001.
- C27. Stefanidis A., P. Agouris, P. Partsinevelos "**Summarizing the content of motion imagery datasets**", International Archives of Photogrammetry & Remote Sensing, Corfu, Greece, 2002.
- C28. 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.
- C29. 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.
- C30. Agouris P., P. Partsinevelos & A. Stefanidis "**Differentiating and modeling multiple moving objects in motion imagery datasets**", International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXIV-5/W10, Engadin, Switzerland, 2003.
- C31. 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, Lesbos, Greece, 1 – 6 June, 2008.
- C32. Mertikas, S. P., R. Ioannides, X. Frantzis, A. Tripolitsiotis, P. Partsinevelos, I. N. Tziavos, G. S. Vergos, W. Hausleitner (2009), "**Recent Developments for the estimation of the altimeter bias for the Jason-1&2 satellites using the dedicated calibration site at Gavdos**", Proceedings of SPIE, Remote Sensing of the Ocean, Sea Ice, and Land Water Regions 2009, 31 Aug, 2009, Berlin, Germany, Vol. 7473, 74730C-1.
- C33. Partsinevelos P. & G. Miliaris (2009), "**Spatiotemporal filtering of multi-temporal images: application on MODIS sea surface temperature (SST) imagery**", 5<sup>th</sup> International

Workshop on the Analysis of Multi-temporal Remote Sensing Images, Groton, CT, 2009.

- C34. Partsinevelos P., "**Orientation independent scene registration through multiple moving object topology**", 5<sup>th</sup> International Workshop on the Analysis of Multi-temporal Remote Sensing Images, Groton, CT, 2009.
- C35. 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.
- C36. Mertikas S. P., A. Daskalakis, V. Tserolas, W. Hausleitner, I. N. Tziavos; G. S. Vergos, V. Zervakis, X. Frantzis, A. Tripolitsiotis, P. Partsinevelos, D. Andrikopoulos (2010). **Absolute calibration of Jason satellite radar altimeters at Gavdos Cal/Val facility using independent techniques**. SPIE Symposium on Remote Sensing, Paper Number: 7825-12, "Remote Sensing of the Ocean, Sea Ice, and Large Water Regions 2010", Toulouse, France.
- C37. Agadakos, 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.
- C38. Partsinevelos P. & N. Tryfona "**Abstract Level Queries in Location-Based Services**", Technical Report No. TR2004/11/03, Research Academic Computer Technology Institute, November 2004.
- C39. 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.
- C40. 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/ECOIImagine, Genoa, 21-23 November, 2007.
- C41. 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.
- C42. 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.
- C43. 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.
- C44. 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>.
- C45. Partsinevelos Panagiotis, Ioannis Agadakos, Nikolas Pattakos, and Michail Maragakis, 2014, "**Towards a gestural 3D interaction for tangible and three-dimensional GIS visualizations**", EGU General Assembly Conference 2014.
- C46. 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.
- C47. Partsinevelos Panagiotis and Maria Papadogiorgaki, (2014), **Digital terrain model generalization incorporating scale, semantic and cognitive constraints**, EGU General Assembly Conference 2014 (Accepted-Presented).
- C48. Partsinevelos Panagiotis, Ioannis Agadakos, Vasilis Athanasiou, Ioannis Papaefstathiou, Stylianos Mertikas, Sarantis Kyritsis, Achilles Tripolitsiotis, and Panagiotis Zervos (2014), **On-board computational efficiency in real time UAV embedded terrain reconstruction**, EGU General Assembly Conference 2014.
- C49. Partsinevelos Panagiotis and Manolis Perakakis, (2014). **A neuromorphic approach to satellite image understanding**, EGU General Assembly Conference 2014 (Accepted-Presented).

- C50. 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.
- C51. 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.
- C52. Partsinevelos P., I. Agadakos, N. Agadakos, 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.
- C53. Partsinevelos P. and G. Miliareisis, (2014). **Ship extraction and categorization from ASTER imagery**, 2nd International Conference on Remote Sensing and Geoinformation of Environment, 7-10 April 2014, Paphos, Cyprus.
- C54. I. Kovaiois, 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).
- C55. Panagiotis Partsinevelos, Nikolaos Skoutelis, Achilleas Tripolitsiotis, Stelios Tsatsarounos, Anna Tsitonaki, Panagiotis Zervos, (2015). **Mapping of traditional settlements by unmanned airborne vehicles towards architectural restoration**, Third International Conference on Remote Sensing and Geoinformation of the Environment, International Society for Optics and Photonics.
- C56. Panagiotis Partsinevelos, Kostas Papadakis, (2015). **Spatially constrained clustering over GIS generated suitability maps**, Third International Conference on Remote Sensing and Geoinformation of the Environment, International Society for Optics and Photonics.
- C57. 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.
- C58. 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.
- C59. Panagiotis Partsinevelos, Mary Sartzetaki, Apostolos Sarris, (2015). **Spatiotemporal conceptual platform for querying archaeological information systems**, EGU General Assembly Conference Abstracts, Vol. 17.
- C60. 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.
- C61. Dimitris Trigkakis, Andreas Pitsiladis, Achilles Tripolitsiotis, Periklis Psillakis, Panagiotis Partsinevelos, (2015). **Graphical queries on an open-source Web-GIS**, International Conference SafeChania, June 2015.
- C62. Sarantis Kyritsis, Stathis Bikos, Stelios Tsatsarounos, Aggelos Antonopoulos, Panagiotis Partsinevelos, (2015). **Gestural navigation of the "TUC" Unmanned Aerial Vehicle**, International Conference SafeChania, June 2015.
- C63. Sarantis Kyritsis & Panagiotis Partsinevelos, (2015). **Tangible, dynamic, real time geomorphology representation using sand forms**, International Conference SafeChania, June 2015.
- C64. Panagiotis Partsinevelos, Sarantis Kyritsis, Manolis Mylonakis, Michail Maraggakis, Achilles Tripolitsiotis, (2015). **A GIS interface in three-dimensional space**, International Conference SafeChania, June 2015.
- C65. S.N. Kamenopoulos, Z. Agioutantis, K. Komnitsas & P. Partsinevelos, (2015). **A New Tool for Geopolitical Assessment of REE Projects**, SDIMI Conference of Sustainable Development in the Minerals Industry, 13 July, 2015, University of British Columbia, Vancouver, BC, Canada.
- C66. Economou, N., Kritikakis, G., Tripolitsiotis, A., Partsinevelos, P., Vlachou, G., Agioutantis, Z., Vafidis, A., **Seismic monitoring for automatic rockfall detection along transportation corridor**, 8th Congress of the Balkan Geophysical Society, BGS 2015, Chania, Greece, 5-8 October 2015.



### Innovation Projects & 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.

### Academic Publication/Research Refereeing

#### Refereeing

- **ACM** Geographic Information Systems International Conference, ACM,
- & **Geoinformatica** Journal, Springer,
- **Sensors** Journal, MDPI,
- 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,
- Journal of **Applied Remote Sensing**, SPIE,
- Bulletin of the Geological Society of Greece, 13th International Congress, Chania, 2013,
- SafeRhodes 2014, Conference,
- SafeChania 2015, International Conference,
- International Society for Photogrammetry and remote Sensing, 23<sup>rd</sup> Congress, Prague, 12-19 July 2016,
- Cooperation EU Projects” Operational Program “Competitiveness and Entrepreneurship”, co-funded by the European Regional Development Fund,
- State Scholarship Foundation of Greece (largest national scholarship provider), reviewer ([www.iky.gr](http://www.iky.gr)).

### Invited Talks & Academic Activities

- 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, 2<sup>nd</sup> 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,
- **Conference Chair** & Scientific committee Chair: International Conference SafeChania, **New Technologies serving Civil Protection**, **Chania**, Greece, 2015,

- 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,
- Organizing Committee: ISPRS Conference, **Integrated Sensor Calibration and Orientation**, Portland ME, USA,

## University Level Teaching

### Teaching

#### I. Technical University of Crete, School of Mineral Resources Engineering

##### Graduate Courses

- Space technologies and Unmanned Aerial Systems (2017-current)
- Geotechnologies and Geographic Information Systems (2008-2015),
- Spatial Information Systems (2016-current),
- Special Topics on Computational Analysis in Geosciences (2015-current),
- Remote Sensing of the Environment (2008-2015),
- Remote Sensing and Digital Image Processing (2016-current),
- Detection and identification of mineral resources (2014),
- Methodology in Scientific Research, (2015-current)

##### Undergraduate Courses

- Remote Sensing (2009-current),
- Introduction in Computer Systems for Mineral Resources Engineers (2008-2016),
- Technical Geodesy, (2011-12, 2013-14, 2014-15),
- Technical Drawing, (2015-16, co-instructor),
- Special Topics in Remote Sensing, (2006-2008),

#### II. Technical University of Crete, School of Architecture

- Undergraduate: Topography – Surveying, (2015-current),
- Graduate: Modern methodologies for mapping historical monuments (2016-current), School of Architecture, Technical University of Crete,

#### III. Aristotle University of Thessaloniki, Lifelong Studies

- Marine structures, Interdepartmental (co-instructor), (2014),

#### IV. Technical Educational Institute of Athens

- Special topics in Remote Sensing, Undergraduate, (2006-08),

#### V. University of Maine

##### Graduate Teaching Assistant

- Digital and Analytical Photogrammetry,

### Lecture-course notes

- *Introduction to Matlab, 2009*
- *Spatial Information Systems and topics in Remote Sensing, 2010*

#### Volunteering Activities & Outreach

- **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,
- National demonstration of **AirScouts**, technical demonstration, 2016,
- **Art display** exhibition organizers, jointly with SafeChania Conference, 2015,
- Technical University of Crete **Open day**, 2014-2017,
- Technical University of Crete **Science Day**, 2014-2017,
- **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,
- Many schools visiting the lab and many live demonstrations to promote spatial awareness and technology in Geospatial Engineering,
- Many interviews and special presentations on National TV (ERT, ANT1, E, Star, DUBAI TV), newspapers (Kathimerini, Proto Thema, Ethnos), websites (GPS World).

#### Memberships

- American Society for Photogrammetry and remote Sensing, (**ASPRS**),
- Institute of Electrical and Electronics Engineers, (**IEEE**),
- 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**),
- Technical University of Crete, elected Cashier of the Professor’s Association,
- Technical University of Crete, Dept. of Mineral Resources Engineering, **Graduate Studies Committee** member, (2010-current),
- Technical University of Crete, **University’s Senate**, Department’s representative, (2009-10),
- Special Account of Research Funds (ELKE), TUC, School’s representative (2019, current)
- Technical University of Crete, **Technical Board** member, (2010-2014),
- School of Mineral Resources Engineering, Board member for **Promotion & Outreach** of the School.

#### Golden Paragraph

Associate Professor in the areas of GIS, Space informatics, EO and UAVs in the Technical University of Crete. PhD in Spatial Information Science & Engineering from the University of Maine, part of the National Center for Geographic Information and Analysis (NCGIA) in USA and in a NASA sponsored center of excellence Remote Sensing Laboratory. He has numerous publications and research projects as a coordinator, and serves as an invited speaker on research and innovation. He directs the Space Informatics Research Team (SenseLab) comprising of more than 30 multi-disciplinary members which managed to become a world leading Reserach Group. Many prestigious international awards and distinctions during highly competitive contests. UAVs for Prof. Partsinevelos do not constitute a simple application area but his team disrupts this research field by fully autonomous, collaborative, real - time, AI enabled, on board platforms way before these are implemented globally.