

Curriculum Vitae

Liakos Leonidas

Personal information

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Education

Phd Diploma (award 11/2021), Department of Planning and Regional Development, University of Thessaly, Scholarship of the State Scholarships Foundation (IKY), PhD Supervisor: Prof. Stathakis Demetris, Thesis: Urban sprawl models and monitoring with remote sensing of night time lights.

December 2000-November 2001: University of Thessaly, Master's Degree (MSc) in Regional Planning and Development, (Grade: 8,4).

(My Thesis subject was: Trends of Change in Employment in Greek Prefectures).

September 1996-December 2000: University of the Aegean, Bachelor's degree in Geography (Grade: 7,75).

(My Thesis subject was: Changes in employment and in Gross Domestic Product (GDP) in Thesprotia during the periods 1971-1981 and 1981-1991. Study of changes using the method of Shift-Share Analysis).

Publications in peer-reviewed International Journals

Matthews, F., Medved, A., Borrelli, P., **Liakos, L.**, Verstraeten, G., Panagos, P., Bezak, N., 2025. Towards the development of bias-corrected rainfall erosivity time series for Europe. *Journal of Hydrology* 651, 132460. <https://doi.org/10.1016/j.jhydrol.2024.132460>

Stathakis, D. and **Liakos, L.**, 2024. Greening and Greenspace Inequality Trends in Greek Urban Areas, Cities. Manuscript Number: JCIT-D-24-01708 (under review).

Panagos, P., Broothaerts, N., Ballabio, C., Orgiazzi, A., De Rosa, D., Borrelli, P., **Liakos, L.**, Vieira, D., Van Eynde, E., Arias Navarro, C., Breure, T., Fendrich, A., Köninger, J., Labouyrie, M., Matthews, F., Muntwyler, A., Jimenez, J.M., Wojda, P., Yunta, F., Marechal, A., Sala, S., Jones, A., 2024. How the EU Soil Observatory is providing solid science for healthy soils. *European J Soil Science* 75, e13507. <https://doi.org/10.1111/ejss.13507>

Panagos, P., De Rosa, D., **Liakos, L.**, Labouyrie, M., Borrelli, P., Ballabio, C., 2024. Soil bulk density assessment in Europe. *Agriculture, Ecosystems & Environment* 364, 108907. <https://doi.org/10.1016/j.agee.2024.108907>

Bezak, N., Panagos, P., Liakos, L., Mikoš, M., 2023. Brief communication: A first hydrological investigation of extreme August 2023 floods in Slovenia, Europe. *Natural Hazards and Earth System Sciences* 23, 3885–3893. <https://doi.org/10.5194/nhess-23-3885-2023>

Panagos, P., Matthews, F., Patault, E., De Michele, C., Quaranta, E., Bezak, N., Kaffas, K., Patro, E.R., Auel, C., Schleiss, A.J., Fendrich, A., **Liakos, L.**, Van Eynde, E., Vieira, D., Borrelli, P., 2023. Understanding the cost of soil erosion: An assessment of the sediment removal costs from the reservoirs of the European union. *Journal of Cleaner Production* 140183. <https://doi.org/10.1016/j.jclepro.2023.140183>

Panagos, P., Hengl, T., Wheeler, I., Marcinkowski, P., Rukeza, M.B., Yu, B., Yang, J.E., Miao, C., Chattopadhyay, N., Sadeghi, S.H., Levi, Y., Erpul, G., Birkel, C., Hoyos, N., Oliveira, P.T.S., Bonilla, C.A., Nel, W., Dashti, H.A., Bezak, N., Van Oost, K., Petan, S., Fenta, A.A., Haregeweyn, N., Pérez-Bidegain, M., **Liakos, L.**, Ballabio, C., Borrelli, P., 2023. Global rainfall erosivity database (GloREDA) and monthly R-factor data at 1 km spatial resolution. *Data in Brief* 109482. <https://doi.org/10.1016/j.dib.2023.109482>

Matthews, F., Verstraeten, G., Borrelli, P., Vanmaercke, M., Poesen, J., Steegen, A., Degré, A., Rodríguez, B.C., Bielders, C., Franke, C., Alary, C., Zúmr, D., Patault, E., Nadal-Romero, E., Smolska, E., Licciardello, F., Swerts, G., Thodsen, H., Casali, J., Eslava, J., Richet, J.-B., Ouvry, J.-F., Farguella, J., Świąchowski, J., Nunes, J.P., Pak, L.T., **Liakos, L.**, Campo-Bescós, M.A., Żelazny, M., Delaporte, M., Pineux, N., Henin, N., Bezak, N., Lana-Renault, N., Tzoraki, O., Giménez, R., Li, T., Zuazo, V.H.D., Bagarello, V., Pampalona, V., Ferro, V., Úbeda, X., Panagos, P., 2023. EUSEDcollab: a network of data from European catchments to monitor net soil erosion by water. *Sci Data* 10, 515. <https://doi.org/10.1038/s41597-023-02393-8>

Liakos, L., Panagos, P., 2022. Challenges in the Geo-Processing of Big Soil Spatial Data. *Land* 11, 2287. <https://doi.org/10.3390/land11122287>

Panagos, P., Van Liedekerke, M., Borrelli, P., Köninger, J., Ballabio, C., Orgiazzi, A., Lugato, E., **Liakos, L.**, Hervas, J., Jones, A., Montanarella, L., 2022. European Soil Data Centre 2.0: Soil data and knowledge in support of the EU policies. *European J Soil Science*. <https://doi.org/10.1111/ejss.13315>

Panagos, P., Köningner, J., Ballabio, C., **Liakos, L.**, Muntwyler, A., Borrelli, P., Lugato, E., 2022. Improving the phosphorus budget of European agricultural soils. *Science of The Total Environment* 158706. <https://doi.org/10.1016/j.scitotenv.2022.158706>

Panagos, P., Borrelli, P., Matthews, F., **Liakos, L.**, Bezak, N., Diodato, N., Ballabio, C., 2022. Global rainfall erosivity projections for 2050 and 2070. *Journal of Hydrology* 610, 127865. <https://doi.org/10.1016/j.jhydrol.2022.127865>

Panagos, P., Muntwyler, A., **Liakos, L.**, Borrelli, P., Biavetti, I., Bogonos, M., Lugato, E., 2022. Phosphorus plant removal from European agricultural land. *J Consum Prot Food Saf*. <https://doi.org/10.1007/s00003-022-01363-3>

Bezak, N., Mikoš, M., Borrelli, P., **Liakos, L.**, Panagos, P., 2021. An in-depth statistical analysis of the rainstorms erosivity in Europe. *CATENA* 206, 105577. <https://doi.org/10.1016/j.catena.2021.105577>

Panagos, P., Jiskra, M., Borrelli, P., **Liakos, L.**, Ballabio, C., 2021. Mercury in European topsoils: Anthropogenic sources, stocks and fluxes. *Environmental Research* 111556. <https://doi.org/10.1016/j.envres.2021.111556>

Stathakis, D., **Liakos, L.**, 2020. Median Shift Lunar Correction for VIIRS. *IEEE Geosci. Remote Sensing Lett.* 1–5. <https://doi.org/10.1109/LGRS.2020.3007965>

Stathakis, D., **Liakos, L.**, 2019. Further adjustment of the Defense Meteorological Satellite Program-Operational Linescan System using radar data. *Journal of Applied Remote Sensing* 13, 034507/1–9. <https://doi.org/10.1117/1.JRS.13.034507>

Bezak, N., Borrelli, P., Panagos, P., 2022. Exploring the possible role of satellite-based rainfall data in estimating inter- and intra-annual global rainfall erosivity. *Hydrol. Earth Syst. Sci.* 26, 1907–1924. <https://doi.org/10.5194/hess-26-1907-2022> (I'm listed in the Acknowledgements section for my contribution in statistical analysis).

Panagos, P., Ballabio, C., Himics, M., Scarpa, S., Matthews, F., Bogonos, M., Poesen, J., Borrelli, P., 2021. Projections of soil loss by water erosion in Europe by 2050. *Environmental Science & Policy* 124, 380–392. <https://doi.org/10.1016/j.envsci.2021.07.012> (I'm listed in the Acknowledgements section for my contribution in data processing).

Köninger, J., Lugato, E., Panagos, P., Kochupillai, M., Orgiazzi, A., Briones, M.J.I., 2021. Manure management and soil biodiversity: Towards more sustainable food systems in the EU. *Agricultural Systems* 194, 103251. <https://doi.org/10.1016/j.agsy.2021.103251> (I'm listed in the Acknowledgements section for my contribution).

Other publications, book chapters

European Commission. Joint Research Centre., European Environment Agency., 2024. The state of soils in Europe: fully evidenced, spatially organised assessment of the pressures driving soil degradation. Publications Office, LU, <https://dx.doi.org/10.2760/7007291>

Liakos, L., Stathakis, D., Chalkias, C., Baltas, P., 2024. Chapter 3 - The role of nocturnal earth observation in urban environment monitoring, in: Kumar, A., Srivastava, P.K., Mall, R.K. (Eds.), *Earth Observation in Urban Monitoring*. Elsevier, pp. 53–67. <https://doi.org/10.1016/B978-0-323-99164-3.00012-4>

Τσιλιμίγκας Γ., Χατζηκωνσταντίνου Α., **Λιάκος Λ.**, 2015. «Παραδοσιακοί οικισμοί στο Αιγαίο. Ζητήματα οικιστικής ανάπτυξης και παράγοντες μεταβολής του χαρακτήρα των παραδοσιακών οικισμών στο Αιγαίο» Στο Σπιλάνης, Γ., Κίζος, Θ. & Καράμπελα, Σ. (επιμ.). *Νησιωτικότητα και Βιωσιμότητα: Η περίπτωση των Νησιών του Αιγαίου*, Πανεπιστήμιο Αιγαίου, Μυτιλήνη, ISBN: 978-960-88031-2-1, σελ. 310-326.

Metallinou G. (Eds.), 2008, *Historical Archaeological Atlas of Greek-Albanian border* (collaborative project), Ministry of Culture and Sports & 32nd Ephorate of Prehistoric and Classical Antiquities, Athens [printed version and digital copy in CD-Rom]. Participation in: (a) texts writing group and (b) mapping (exclusively).

Publications in proceedings of conferences (peer-reviewed)

Stathakis, D., **Liakos, L.**, Baltas, P., 2021. COVID-19 Pandemic Assessment by Night-Lights, in: 2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS. in: IGARSS 2021 - 2021 IEEE International Geoscience and Remote Sensing Symposium, IEEE, Brussels, Belgium, pp. 6801–6804. <https://doi.org/10.1109/IGARSS47720.2021.9553441>

Stathakis, D.N., **Liakos, L.**, 2020. Time series formation based on VIIRS 24h data, in: Chrysoulakis, N., Erbertseder, T., Zhang, Y. (Eds.), *Remote Sensing Technologies and Applications in Urban Environments V*. SPIE, Online Only, United Kingdom, p. 17. <https://doi.org/10.1117/12.2574346>

Stathakis, D., **Liakos, L.**, 2019. VIIRS lunar radiance removal by Dark Object Subtraction, in: IGARSS 2019 - IEEE International Geoscience and Remote Sensing Symposium. IEEE, Yokohama, Japan, pp. 6380–6383. <https://doi.org/10.1109/IGARSS.2019.8898906>

Stathakis, D.N., **Liakos, L.**, Chalkias, C., Pafi, M., 2018. A photopollution index based on weighted cumulative visibility to night lights, in: Chrysoulakis, N., Erbertseder, T., Zhang, Y. (Eds.), *Remote Sensing Technologies and Applications in Urban Environments III*. SPIE, Berlin, Germany, p. 3. <https://doi.org/10.1117/12.2500212>

Liakos L., Vaseiliadis St., 2015, Site Catchment and travel routes in the broader region of Epirus and Southern Albania in ancient times, Day conference: "Historical Geography Identities", the Deanship of school of Philosophy in University of Ioannina and Laboratory Analysis and visualization of spatiotemporal data of Aegean University, September 23, 2015, Ioannina, Greece.

Tsilimigkas, G., **Liakos, L.**, Chatzikonstantinou, A., 2014. Spatial configuration of soil sealing: Cyclades islands case study,[Conference Proceedings in CDROM]. Presented at the 1st International Geomatics Applications “GEOMAPPLICA” Conference, Department of Planning and Regional Development of the School of Engineering of the University of Thessaly, Skiathos, Greece, pp. 165–171.

Liakos, L., Tsilimigkas, G., Chatzikonstantinou, A., 2014. Legal framework spatial database for architectural heritage. FOSS application in Aegean islands traditional settlements. Presented at the 1st International Geomatics Applications “GEOMAPPLICA” Conference, Department of Planning and Regional Development of the School of Engineering of the University of Thessaly, 08–11 September 2014, Skiathos, Greece, pp. 199-205 .

Tsilimigkas, G., Chatzikonstantinou, A., **Liakos, L.**, 2014. Transformation factors of traditional settlements on the islands of the Aegean Sea. Presented at the 12th International Conference on Urban History Session: Managing Change in Historic Settlements, European Association for Urban History (EAUH). Nova University of Lisbon, Portugal.

Liakos L., Vasileiadis S., 2008, Determination of exploitation area and the movement corridors of ancient settlements in Thesprotia and South Albania using Cost Surface analysis and Xtent Model, 10o National Mapping Conference: «The Mapping of Continental Region Boundaries – Barriers – Axes- Standards – Quility», Hellenic Cartographic Society, Ioannina.

Λιάκος, Λ., Ρήγινο, Γ., Δρόσου, Δ., Σακκάς, Δ., Βλαχοπούλου, Ρ., 2008. Record – documentation – preservation – promotion: Digital applications of the 33rd Ephorate of Prehistoric and Classical Antiquities for the management of archaeological data. στο Διεθνές συνέδριο: “Η Ψηφιακή Κληρονομιά στο νέο περιβάλλον γνώσης: κοινοί χώροι & ανοικτές οδοί πρόσβασης στην πολιτισμική πληροφορία,” Διεύθυνση Εθνικού Αρχείου Μνημείων, Αθήνα.

Conference announcements (peer reviewed)

Λιάκος, Λ., Πανάγος, Π., 2023. Ο πίνακας ελέγχου της ποιότητας του εδάφους του Παρατηρητήριου Εδάφους της Ευρωπαϊκής Ένωσης (EUSO Soil Health dashboard). στο: 16^ο Πανελλήνιο Εδαφολογικό Συνέδριο, Γεωπονικό Πανεπιστημίο Αθηνών, Αθήνα.

Maréchal, A., Jones, A., Panagos, P., Belitrandi, D., De Medici, D., De Rosa, D., Martin Jimenez, J., Koeninger, J., Labouyrie, M., **Liakos, L.**, Lugato, E., Matthews, F., Montanarella, L., Muntwyler, A., Orgiazzi, A., Scarpa, S., Schillaci, C., Wojda, P., Van Liedekerke, M. and Simoes Vieira, D., EU Soil Observatory 2021, EUR 31152 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-55031-0, <https://10.2760/582573>, JRC129999

Schillaci, C., Muntwyler, A., Marechal, A., Orgiazzi, A., Jones, A., Ciupagea, C., Belitrandi, D., De Medici, D., De Rosa, D., Vieira, D., Matthews, F., Martin-Jimenez, J., Koeninger, J., **Liakos, L.**, Montanarella, L., Labouyrie, M., van Liedekerke, M., Panagos, P., Scarpa, S., and Wojda, P.: European soil observatory (EUSO) structure and perspectives , EGU General Assembly 2022, Vienna, Austria, 23–27 May 2022, EGU22-5248, <https://doi.org/10.5194/egusphere-egu22-5248>, 2022.

Vieira, D., Muntwyler, A., Marechal, A., Orgiazzi, A., Jones, A., Schillaci, C., Ciupagea, C., Belitrandi, D., de Medici, D., de Rosa, D., Matthews, F., Martin Jimenez, J., Koeninger, J., **Liakos, L.**, Montanarella, L., Labouyrie, M., Van Liedekerke, M., Panagos, P., Wojda, P., Scarpa, S., 2022. Healthy soils, a fresh start. Presented at the EGU General Assembly 2022, EGU22-11432. <https://doi.org/10.5194/egusphere-egu22-11432>

Λιάκος, Λ., Πανάγος, Π., 2022. Προκλήσεις στη διαχείριση και επεξεργασία μεγάλων γεωγραφικών δεδομένων εδάφους. στό: 4^ο Συνέδριο Γεωγραφικών Πληροφοριακών Συστημάτων και Χωρικής Ανάλυσης στη Γεωργία και στο Περιβάλλον, Γεωπονικό Πανεπιστήμιο Αθηνών, 24-26 Μαΐου, Αθήνα.

Liakos, L., Panagos, P., 2021. Challenges in geo-processing of Large scale Soil datasets. A geographer's perspective. in: 1st European Soil Observatory Stakeholder Forum. Online.

Stathakis, D., **Liakos, L.**, Tselios, V., Baltas, P., 2021. Night Light as an indicator of the pandemic's impact on economic activity in touristic areas, in: 60th ERSa Congress Territorial Futures – Visions and Scenarios to Cope with Megatrends in a Changing Europe. Bolzano-Bozen, Italy.

Baltas, P., Stathakis, D., **Liakos, L.**, 2021. Monthly seasonal population estimations based on data derived from Satellite images and Social Media. Presented at the Migration and Mobility Research in the Digital Era (MIMODE 2021). A satellite event of the Conference on Complex Systems 2021, Lyon, France.

Baltas P., Stathakis D., **Liakos L.**, 2021. “Big data, human geography and spatial planning: Investigation of the scope”, Geography scientific conference: Geography in a Changing World, department of Geography, University of Aegean, June 3-5, 2021, Lesvos

Stathakis, D., Baltas, P., **Liakos, L.**, 2019. Preprocessing Very High Temporal Resolution Night-Lights Data For Noise Removal, in: 39th Annual EARSeL Symposium. Salzburg, Austria.

Baltas P., Stathakis D. and **L. Liakos**, 2019. Exploiting Social Media Data to Estimate Monthly Fluctuations of Seasonal Population in Island Regions of Greece, in: 59th ERSa congress, "Cities, regions and digital transformations: Opportunities, risks and challenges", August 27-30, 2019, Lyon, France (accepted for oral presentation).

Baltas, P., **Liakos, L.**, 2019. Coastal Cities Spatial Metrics : A new landscape monitoring indicator based on seasonal population estimates, in: 4th International Conference on “CHANGING CITIES: Spatial, Design, Landscape & Socio-Economic Dimensions.” στο Special session: Space, Pressures and The Management Of Coastal Cities Landscape, The Laboratory of Urban Morphology & Design, Department of Planning & Regional Development, University of Thessaly, Chania, Crete.

Baltas, P., **Liakos, L.**, 2019. Changing Landscapes: Population growth and land cover change of Greek Coastal Cities and Agglomerations over the last 20 years, in: 4th International Conference on “CHANGING CITIES: Spatial, Design, Landscape & Socio-Economic Dimensions.” στο Special session: Space, Pressures and The Management Of Coastal Cities Landscape, The Laboratory of Urban Morphology & Design, Department of Planning & Regional Development, University of Thessaly, Chania, Crete.

Stathakis, D., **Liakos, L.**, 2018. An improved DMSP/OLS times series based on adjusted-data, in: 38th Annual EARSeL Symposium, Earth Observation Supporting Sustainability Research. Chania, Crete, Greece.

Λιάκος, Λ., 2010. Εφαρμογή των Συστημάτων Γεωγραφικών Πληροφοριών ανοικτού κώδικα στην αρχαιολογία. στο Συνέδριο ΕΛ/ΛΑΚ: Επιχειρηματικότητα, Δημόσιος τομέας, Εκπαίδευση και Έρευνα, Εταιρεία Ελεύθερου Λογισμικού/Λογισμικού Ανοικτού Κώδικα, Εθνικό Μετσόβειο Πολυτεχνείο, Αθήνα.

Workshops

Stathakis, D., **Liakos, L.**, Baltas, P., 2021. Medium temporal scale night-lights data for detecting abnormal events, in: NightLights Virtual Workshop 2021. Alba Orbital, Virtual Event.

Liakos, L., 2020. Workshop: "R language: calculating indicators by using night light images. Visualization in graphs and maps, HellasGI, Athens.

Liakos, L., 2019. Workshop "Raster and Raster Stack in R", 12th FOSSCOMM conference Oct. 11–13, 2019, University of Thessaly, Lamia, Greece.

Λιάκος Λ., 2019. "Raster και Raster Stack στην R με την χρήση δορυφορικών δεδομένων νυκτερινών φώτων (DMSP/OLS)." Workshop: Επεξεργασία δορυφορικών Δεδομένων/Εικόνων με την χρήση ανοικτού λογισμικού, εργαστήριο Χωρικής Ανάλυσης, Γεωγραφικών Πληροφοριακών Συστημάτων και Θεματικής Χαρτογραφίας, ΤμΧΠΠΑ, Βόλος.

Σταθάκης Δ., **Λιάκος Λ.**, 2017. Επεξεργασία raster δεδομενων με R (workshop), FOSSCOMM 2017, Χαροκόπειο Πανεπιστήμιο, Αθήνα 4–5 Νοε. 2017.

Spatial Analysis, GIS and Thematic Mapping Laboratory, Department of Planning and Regional Development, School of Engineering, University of Thessaly (**Liakos L.**, Faraslis I., Liotiris C., Demetris Stathakis), 2016, 3d models for 3d printing of greek mountains, FOSSCOMM 2016, University of Piraeus, Athens.

Liakos L., Tsilimigkas G., Chatzikonstantinou A., 2014, QGIS plugin development for the management of the institutional framework for the Traditional settlements of Aegean islands, FOSSCOMM 2014, Technological Institute of Central Greece, Lamia, Greece.

Liakos L., 2011, Python, vector data and the Library ogr, 1 Greek Users Meeting GRASS and GFOSS, HellasGI, FOSS, Department of Planning and Regional Development-University of Thessaly, Technological Educational Institute of Serres (Tei Serron), greek appendix of OSGeo, June 17-19, 2011, Argalasti, Pilio, Greece.

Liakos L., 2010, a) Stone Bridges mapping of Epirus, b) Online coordinate conversion from Hatt to Greek Greed '87, GeoDataCamp 2010: open users' meeting, volunteers citizens, Hellenic Mapping and Cadastral Organization (HEMCO), Athens, (Presentation through video, URL of Conference:

Liakos L., Kapaklis D., Nousi E., Feidas P., 2005, Urban Information Management Applications and *Technical Infrastructures (GEOVALUES GIS)*, *The Geographic Information Systems* in the service of the citizens (Prefectural and Local Authority), HellasGIS, Athens.

Work experience

29/10/2022 – Ongoing: **Unisystems: Information Systems Agent, Data Analyst, external contractor of the Joint Research Centre of the European Commission (Land Resources Unit, JRC.D.3)**, “Data analyst for the EU Soil Observatory & European Soil Data Centre”, teleworking.

30/06/2020 – 18/10/2022: **Unisystems: Information Systems Agent, Technology expert, external contractor of the Joint Research Centre of the European Commission (Land Resources Unit, JRC.D.3)**, “Technology Expert to provide technical support for the geospatial modeling activities of the Natural Capital Project”, teleworking.

22/07/2020–23/07/2020: **Institute of the Greek Tourism Confederation**, “Geoprocessing and mapping services: matching real estate leased on Airbnb-Homeaway platforms with zip codes and administrative units of Kallikratis”, Athens, Greece.

01/11/2019–30/01/2020: **Institute of Historical Research of the National Hellenic Research Foundation (IHR/NHRF)**, “Processing of population and spatial data for the creation of thematic maps for the residential network of the Peloponnese during the years of the Revolution of 1821” within the framework of the Project “Documentation of history of the Greek settlements 15th-20th century”. Athens, Greece

01/11/2018–25/07/2020: **University of Thessaly**, 1st Call in order to support the Postdoctoral Researchers, Estimating Seasonal Population via Night-Time Satellite Image. Night-Lights Preprocessing, Volos, Greece.

11/2015-03/2016: **Institute of Historical Research/National Hellenic Research Foundation**, Kyrrou Plegmata: Networks of economy, power and knowledge in the Greek world from prehistoric times to the modern era: documentation – mapping – synthetic approaches, Athens, Greece. (Project “Krepis”, General Secretariat of Research and Technology, 2013-2015)

07/09/2015-15/10/2015: **Greek Research and Technology Network (GRNET S.A.)**, “3D Models for printing of greek mountains” in the context of sub-project 4 “Financial support for FOSS development projects” of the project “Electronic services for development and dissemination of Open Source Software” with the code MIS 292567 of the OP “Digital Convergence”, Athens, Greece.

01/04/2015-30/10/2015: **University of Thessaly**, “Server's interconnection with the GPS that have installed in livestock holdings of the sample in Thessaly and data storage in GIS database” under the research project titled “LACTIMED-GT5”, Volos, Greece.

01/11/2014-24/03/2015: **University of Thessaly**, “Spatial analysis of primary health care services in Greek territory and decision support of relocation based on the needs of the population”, (Development of Information System, Applying methodologies of location), Volos, Greece.

11/10/2013-31/12/2014: **University of the Aegean**, Participation in the development of thematic databases concerning the mapping of all the borders of the traditional settlements and the calculation of the key indicators about the Operational Programme «Traditional Settlements on the Aegean Islands- Factors that changed the character of the Traditional Settlement on the Aegean», Mytilene, Greece.

01/11/2012-30/11/2012: **University of Thessaly**, Spatial Data Infrastructure- Web mapping application, Volos, Greece.

02/12/2009-31/12/2009: **8th Ephorate of Prehistoric and Classical Antiquities**, Digitizing of topographic maps, Project correction and use of Geographic Information Systems (GIS) on the rescue excavations in Kanoni, Corfu, Greece.

19/5/2009-31/12/2009: **32nd Ephorate of Prehistoric and Classical Antiquities**, Supply of Digital geomorphological maps, Igoumenitsa, Greece.

17/09/2008-31/10/2008: **32nd Ephorate of Prehistoric and Classical Antiquities**, CD creation for the Presentation of archaeological data for the Project «Historical-Archaeological Atlas of Greek-Albanian border», Igoumenitsa, Greece.

14/12/2007-29/8/2008: **32nd Ephorate of Prehistoric and Classical Antiquities**, Scientific texts writing and GIS Mapping for the Project: «Historical Archaeological Atlas of Greek-Albanian border», Igoumenitsa, Greece.

12/09/2007-31/12/2007: **33rd Ephorate of Prehistoric and Classical Antiquities**, Planning, development and configuration application for management of spatial and descriptive archaeological data (GIS), Preveza, Greece.

17/08/2006-17/05/2007: **8th Ephorate of Prehistoric and Classical Antiquities**, Application of data management cultural and archaeological material-Electronic digital archaeological map (GIS), Igoumenitsa, Greece.

05/08/2005-05/02/2006: **5th Hunting Federation Epirus-Corfu**, Gamekeeper, Thesprotia, Greece.

17/05/2004-27/05/2005: **GeoValues E.E.**, Development of Geographic Information Systems (GIS) applications for the management of urban elements, public utility networks of municipalities and settlements, Athens, Greece.

13/10/2003-12/03/2004: **Epsilon SA**, Geographic Information Systems.

Furthermore, I am working on Environmental Impact Assessments (EIA) and designing websites in addition to my business activity.

Teaching experience

21/03/2022-30/06/2022 & 14/02/2023-30/06/2023: **Department of Planning and Regional Development, School of Engineering, University of Thessaly** ("Acquisition of Academic Teaching Experience for young Ph.D. holders 2021-2022 (MIS 5129453) & 2022-2023 (MIS 5181014) in the University of Thessaly"), Courses: a) *Data analysis/Statistics II* and b) *Programming*.

09/2005-02/2011: **Technological Educational Institute of Epirus (TEI EPIRUS)**. Department of Tourism Management. Laboratory Associate (teaching staff with temporary contract), Courses: Tourism Geography I, Tourism Geography II:

26/09/2005-27/02/2006 (122 hours/semester)

07/03/2006-30/06/2006 (96 hours/semester)

09/10/2006-23/02/2007 (112 hours/semester)

05/03/2007-29/06/2007 (109 hours/semester)

01/10/2007-25/02/2008 (133 hours/semester)

03/03/2008-27/06/2008 (109 hours/semester)

01/10/2007-25/02/2008 (133 hours/semester)

16/10/2008-23/02/2009 (112 hours/semester)

03/03/2009-26/06/2009 (93 hours/semester)

01/10/2009-22/02/2010 (127 hours/semester)

01/03/2010-29/06/2010 (52 hours/semester)

01/10/2010-18/02/2011 (72 hours/semester)

15/12/2005-20/02/2006 (Duration: 54 hours): **Organisation of Tourism Education and Training (OTEK).**

Courses: 1. Educational Services, 2. Tourism Geography.

01/12/2006-09/02/2007 (Duration: 42 hours): **Organisation of Tourism Education and Training (OTEK).**

Courses: 1. Educational Services, 2. Tourism Geography.

16/2/2004-30/6/2004 (Duration: 30 hours): **Institute of Vocational Training in Chalandri, Attica.**

Courses: Manuals for the Ministry of Infrastructure, Transport and Networks.

15/1/2008-26/2/2008 (Duration: 25 hours): **Institute of Adult Continuing Education (ΙΑΕΚΕ)**

Igoumenitsa, Thesprotia. Courses: Water resource management.

16/02/2007-30/06/2007 (Duration: 42 hours): **Institute of Vocational Training in Igoumenitsa,**

Thesprotia. Specialised training in: Technical surveying applications. Courses: Geographic Information Systems (GIS).

02/10/2006-15/02/2007 (Duration: 56 hours): **Institute of Vocational Training in Igoumenitsa,**

Thesprotia. Specialised training in: Technical surveying applications. Courses: Automated and Thematic Mapping.

18/02/2008-30/06/2008 (Duration: 70 hours): **Institute of Vocational Training in Igoumenitsa,**

Thesprotia. Specialised training in: Technical surveying applications. Courses: Raster GIS.

Certificates

Professional license/certificate, Class: A, Category: 27 (Environmental), Registration Number: 18252, Hellenic Ministry for the Environment, Physical Planning and Public Works- Register Scholars Department.

Personal skills

Mother Tongue: *Greek*.

Other language: *English*. Certificates:

1. TEST OF ENGLISH FOR INTERNATIONAL COMMUNICATION (TOEIC), EDUCATIONAL TESTING SERVICE (ETS), TOEIC Listening&Reading score: 885 (CEFR Level B2), 2016.
2. First Certificate in English, Cambridge, GRADE C (CEFR Level B2), 1994.

Computer skills

Operating systems: GNU/Linux, MS Windows

Cloud Computing: JRC Big Data Analytics Platform (BDAP: JeoLab/JeoBatch/JeoDesk), Google Earth Engine

Curriculum Vitae, Liakos Leonidas, 28.7.2025

Programming/Markup Languages: R, Python, php, Javascript, html, latex

Indicative use of software GIS/RS: GRASS GIS, QGIS, ESA SNAP/gpt, ESRI ARCGIS, ogr/gdal libraries

Databases: POSTGRESQL/Postgis, MySQL, Sqlite/Spatialite, Libre Base. MSSQL, MSACCESS

Webmapping: geoserver, geonode, mapbender, geomoose, geodjango, cartaro, openlayers, leaflet,

Dashboards: R/Shiny, Python/Voilà

Webpages: Python/Django/Geodjango, Drupal, Joomla, Wordpress

Statistical/Data analysis: R (*Coursera MOOCs: R Programming, The Data Scientist's Toolbox, Getting and Cleaning Data*)

Cloud computing: JRC Big Data Platform (JEODPP), Google Earth Engine

Special knowledge:

Briefing for secure remote service delivery, Course manager: HR B3 DIGITAL SKILLS, European Commission, 10/09/2021.

National Aeronautics and Space Administration(NASA), Applied Remote Sensing Training Program (ARSET) «*Introduction to NASA's "Black Marble" Night Lights Data*», Webinar, 3/12/2020.

Introduction to Digital Currencies, MOOC 2018, University of Nicosia

Member of Unions

Member of Geographers Association of Greece (G.A.G).

Member of Hellenic Geographic Information Society (HellasGIs).