

ALEXANDROS KORKOVELOS

Geospatial data analyst, highly motivated by the great potential of remote sensing, big data & geospatial analysis in supporting innovation towards sustainable development. Interested in a role of data analyst/scientist through which I can use and further develop my technical and analytical skills to provide strategic advice and insights to complex problems.

PERSONAL INFO

Greek | Dec 8, 1989

email: alex.lari.kor@gmail.com | **mobile:** +46 735 84 36 13 | **skype:** alekor81289 | **web:** <https://akorkovelos.me/>

LinkedIn: [linkedin.com/in/alexandros-korkovelos-07931168](https://www.linkedin.com/in/alexandros-korkovelos-07931168) | **GitHub:** <https://github.com/akorkovelos>

Address: Residence Tower, N4 2NE, London, UK

EDUCATION

- 09/2015 – 06/2020 **KTH Royal Institute of Technology (Sweden)**
PhD in Energy Systems Analysis
Research Focus: Energy modelling and systems' planning to support electrification activities in developing economies under the Sustainable Energy for All (SE4ALL) framework.
Main Courses: Energy System Economics, Modelling and Indicators for Sustainable Energy Development, Energy Data, Balances and Projections, Energy and Geopolitics, Spatial Data Analysis.
- 09/2013 - 08/2015 **KTH Royal Institute of Technology (Sweden) & Universitat Politècnica de Catalunya (Spain)**
Master of Science (MSc.) in Sustainable Energy Engineering
[European Institute of Innovation & Technology \(EIT KIC InnoEnergy\) Scholarship 2013 - 2015](#)
Master Thesis in Renetech AB, Stockholm Sweden: *Energy modelling to support subnational sustainable planning in developing countries: The case of Kakamega County in Kenya.*
Main courses: Energy Resources, Renewable Energy Technologies, Energy & Environment, Polygeneration, Economics and Energy Markets, Innovation & Entrepreneurship in Sustainable Energy Technology, Environmental Pathways for Sustainable Energy Conversion.
- 09/2007 - 07/2013 **DUTH - Democritus University of Thrace - School of Engineering**, Xanthi Greece
Diploma (MEng) in Industrial Engineering & Management [GPA: 8.04/10.0](#)
[Major in Production optimization](#)
Master Thesis: *EcoReDesign of industrial product: Case of split unit air conditioner.*
Main courses: Computer Programming, Data analysis, Operations Resource Management, Total Quality Management, Project Management, Marketing, Industrial Economics, Industrial Informatics.

WORK EXPERIENCE

- 07/2020 – present **The World Bank, Washington D.C United States of America**
Geospatial Data Analyst | Energy Access Specialist
- Research and development over the Open Source Spatial Electrification Tool (OnSSET) that is used to generate spatially explicit electrification roadmaps in Sub-Saharan Africa.
 - High level consultation and technical support on the development of policy (at national or sub-national level) associated with the implementation/actualization of the above-mentioned electrification roadmaps.
 - Support capacity building and pedagogical activities related to geospatial electrification planning and the use of the OnSSET by local authorities and third-party stakeholder (e.g. ministerial divisions and/or academia) in those countries.
- 09/2015 – 06/2020 **Division of Energy Systems Analysis (dESA) at KTH, Stockholm, Sweden**
Research Consultant
- Coordinate the development of the Global Electrification Platform (GEP): [Client: The World Bank](#)
 - Coordinate and support the geospatial electrification analysis featuring at IEA's Energy Access Outlook 2019: [Client: IEA](#)
 - Coordinate and support the development of the Open Source Spatial Electrification Toolkit (OnSSET) [Client: UNDESA, SIDA, ABB, The World Bank](#)
 - Conduct the geospatial electrification analysis featuring at IEA's Energy Access Outlook 2017: [Client: IEA](#)
 - Conduct geospatial electrification analyses for developing countries (44 countries in Sub-Saharan Africa, 10 countries in Latin America & 6 countries in South East Asia) [Client: UNDP-UNDESA](#)
 - Develop and maintain a comprehensive geo-database of energy related data for developing countries [Client: The World Bank](#)
 - Support educational and capacity building activities in developing countries organized by [KTH dESA, UNDESA and The World Bank](#)

- Coordinate (research) proposals: [The World Bank](#), [Africa Development Bank](#), [UNDESA](#), [IEA](#), [ESA](#)

Project Manager

- Energy planning for boosting agricultural productivity in Mozambique [Client: The World Bank](#)
- Electrification perspectives for Madagascar [Client: The World Bank](#)
- Rural electrification and energy infrastructure planning in Afghanistan [Client: The World Bank](#)

02/2015 – 11/2015

Renetech AB, Stockholm Sweden

Junior Energy Consultant

- Coordinating the feasibility study for a small hydro power plant in Rucanzogera, Rwanda
- Provided GIS support to the elaboration of the geo-topological and hydrological assessment of the project
- Developed a socio-economic and environmental assessment for the project
- Reviewed the legal and institutional framework for electrification processes in Rwanda

07/2012 – 12/2012

Xingyu Automotive Lighting Systems Co., Ltd, Changzhou, China

Junior Engineer - Apprenticeship on production planning processes

- Support procurement regulations and inventory management using MRP systems
- Setup a database (MS Access) for more effective information exchange between the involved departments
- Involvement in the implementation of Lean manufacturing processes through data mining

LANGUAGES

Native: Greek, **Fluent:** English, **Basic:** Swedish, Spanish

SOFTWARE SERVICES & PROGRAMMING

Competent: OnSSET, ArcGIS, MS Office, LEAP

Good: Python, QGIS, Git, ReadTheDocs/Sphinx, Anaconda, Jupyter Lab

Basic: AWS, GEE, SNAP, OSM, Osmosis, HTML, Jekyll, Grass GIS, PostgreSQL-PostGIS, GeoServer, PVSyst, RETScreen, HOMER, MATLAB, AutoCad, LaTeX, Linux OS

PUBLICATIONS

First Author

- | | |
|------|--|
| 2018 | Energies - Korkovelos A. ; Mentis D.; Siyal S.; Arderne C.; Rogner H.; Bazillian M.; Howells M.; Beck H.; De Roo A.; “A geospatial assessment of small-scale hydropower potential in Sub-Saharan Africa”. |
| 2019 | Energies - Korkovelos A. ; Howells M.; Sahlberg A.; Khavari B.; “The role of Open Source data and tools in geospatial electrification planning and the achievement of SDG 7”. |
| 2020 | Sustainability - Korkovelos A. ; Howells M.; Nerini F.; Bazillian M.; Zerriffi H.; Rogner H.; “A retrospective analysis of electrification with a focus on isolated and mini-grids”. |
| 2020 | Sustainability - Korkovelos A. ; Mentis D.; Siyal S.; Bazillian M.; Angelou N.; Howells M.; “Energy planning in fragile environment. Incorporating conflict related stresses in geospatial least-cost electrification modelling”. |

Co-author

- | | |
|---------|--|
| 05/2020 | Applied Energy (2020), Volume 264 , Menghwani V. Zerriffi H.; Korkovelos A. ; Khavari B.; Sahlberg A.; Howells M.; Mentis D.; “Planning with justice. Using spatial modelling to incorporate justice in electricity pricing – The case of Tanzania”. |
| 09/2017 | Energy Strategy Reviews 2017, 17, 45-49 , Mentis D.; Siyal S.; Korkovelos A. ; Howells M.; “Estimating the spatially explicit wind generated electricity cost in Africa - A GIS based analysis”. |
| 07/2017 | Environmental Research Letters 2017, 12, 8 , Mentis D.; Howells M.; Rogner H.; Korkovelos A. ; Arderne C.; Zepeda E.; Siyal S.; Taliotis C.; Bazillian M.; De Roo A.; Tanvez Y.; Oudalov A.; “Lighting the World: the first application of an open source, spatial electrification tool (OnSSET) on Sub-Saharan Africa”. |

07/2017	Environmental Research Letters 2017, Moksnes N.; Korkovelos A. ; Mentis D.; Howells M.; <i>“Electrification pathways for Kenya – linking spatial electrification analysis and medium to long term energy planning”</i> .
11/2016	Renewable Energy 2016, 97, 77-88, Mentis D.; Siyal S.; Korkovelos A. ; Howells M.; <i>“A geospatial assessment of the techno-economic wind power potential in India using geographical restrictions”</i> .
04/2016	Applied Geography 2016, 72, 1-13, Mentis D.; Andersson M.; Howells M.; Rogner H.; Siyal S.; Broad O.; Korkovelos A. ; <i>“The benefits of geospatial planning in energy access – A case study on Ethiopia”</i> .

WORKSHOPS – CONFERENCES - PRIZES

06/2019	Three-week workshop at OpTIMUS Summer School - Capacity building with the World Bank, DFID, UNDP, UNDESA and representatives of 11 countries, Trieste Italy.
06/2018	Four-week workshop at OpTIMUS Summer School - Capacity building with the World Bank and representatives of 15 countries, Trieste Italy.
02/2018	Training Workshop on OnSSET tool at Energy Modelling Platform for Africa (EMPA) - Capacity building with UNECA and representatives of 6 African countries, Addis Ababa Ethiopia.
07/2017	Training Workshop on OnSSET tool - Capacity building with the World Bank and representatives of the Government of Afghanistan, Dubai UAE.
05/2017	World Hydropower Congress – Invitation to participate as panelist to the dialogue on the role of small (off-grid) hydropower in rural electrification & Awarded the prize of IHA Young Researcher for 2017, Addis Ababa Ethiopia.
04/2017	European Geosciences Union General Assembly – Nominated for the Outstanding Student Poster and Pico Award for 2017, Vienna Austria.
02/2017	Training Workshop on energy modelling - Capacity building with the World Bank and representatives of four South East Asian Countries, New Delhi India.
08/2016	Training Workshop – Capacity building of 30 officials from various African countries on Modelling tools and integrated approaches for sustainable development policies in partnership with UNDESA/DPAD and UNDP, Addis Ababa Ethiopia.
11/2015	International Workshop on Environment & Alternative Energy organized by NASA and ESA, ESAC Madrid Spain.