

ALEXANDROS KORKOVELOLOS

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 candidate 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

- 09/2015 - present **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.; <i>“A geospatial assessment of small-scale hydropower potential in Sub-Saharan Africa”</i> . |
| 2019 | Energies - Korkovelos A.; Howells M.; Sahlberg A.; Khavari B.; <i>“The role of Open Source data and tools in geospatial electrification planning and the achievement of SDG 7”</i> . |
| 2020 | Technological Forecasting & Social Change - Korkovelos A.; Howells M.; Nerini F.; Bazillian M.; Zerriffi H.; Rogner H.; <i>“A retrospective analysis of electrification with a focus on isolated and mini-grids”</i> . |
| 2020 | Energy Strategy Reviews - Korkovelos A.; Mentis D.; Siyal S.; Bazillian M.; Angelou N.; Howells M.; <i>“Energy planning in fragile environment. Incorporating conflict related stresses in geospatial least-cost electrification modelling”</i> . |

Co-author

- | | |
|---------|--|
| 05/2020 | Applied Energy (2020), Volume 264, Menghwani V. Zerriffi H.; Korkovelos A.; Khavari B.; Sahlberg A.; Howells M.; Mentis D.; <i>“Planning with justice. Using spatial modelling to incorporate justice in electricity pricing – The case of Tanzania”</i> . |
| 09/2017 | Energy Strategy Reviews 2017, 17, 45-49, Mentis D.; Siyal S.; Korkovelos A.; Howells M.; <i>“Estimating the spatially explicit wind generated electricity cost in Africa - A GIS based analysis”</i> . |
| 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.; <i>“Lighting the World: the first application of an open source, spatial electrification tool (OnSSET) on Sub-Saharan Africa”</i> . |
| 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.