PERSONAL INFORMATION   **Meysam Majidi Nezhad**

RESEARCH FOLLOWSHIPS

Senior researcher

- Proposal award titled: "Satellite Remote Sensing Pixel Assessment Techniques of Renewable Energy Sources". Department of Astronautics, Electrical and Energy Engineering (DIAEE), Sapienza University of Rome, Italy. Mar 2022 to present time.

Postdoctoral researcher

- Proposal award titled: "Renewable Energy Sources (RESs) assessment using Remote Sensing techniques". Department of Astronautics, Electrical and Energy Engineering (DIAEE), Sapienza University of Rome, Italy. Nov 2019 to Nov 2021.

Mobility

- Proposal award titled: "Managing Renewable energies Efficiency based on environment emission reduction using machine learning methodologies" Royal institute of technology (KTH) and the school of Electrical Engineering, Stockholm, Sweden. 2019.

EDUCATION AND TRAINING

Ph.D.

- Engineering of Energy and Environment. Department of Astronautics, Electrical and Energy Engineering (DIAEE). Sapienza University of Rome, Italy. Thesis: "Renewable Energy Source Assessment Using Remote Sensing Techniques and Studies for Off-grid System" Oct 2016 – Feb 2020.

M.Sc.

- Engineering of Natural Resources. Faculty of Agriculture and Natural Resources. University Science and Research Branch, Tehran, Iran. Sep 2010 - Feb 2013.

B.Sc.

- Engineering of Natural Resources (Faculty of Agriculture and Natural Resources). Branch University Chalus, Iran Sep 2006 – Mar 2010.

PROJECTS

Joint Lazio province

- Joint Lazio province Project, "An integrated multidisciplinary and multiscale digital approach fostering the decarbonisation of port areas" protocol RG12117A8A106E46, funded by Sapienza university of Rome. Italy.

Joint European Union

- ODYSSEA "Operating a Network of Integrated Observatory Systems in the Mediterranean Sea". The ODYSSEA project that received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 727277.

LIST OF PUBLICATIONS

- Razmjoo, A., Mirjalili, S., Aliehyaei, M., ...Ahmadi, A., *Majidi Nezhad*, M. Development of smart energy systems for communities: technologies, policies and applications. Energy, 2022, 248, 123540. https://doi.org/10.1016/j.energy.2022.123540
- *M. Majidi Nezhad,* A. Heydari, M. Neshat, F. Keynia, G. Piras, D. Astiaso Garcia. A Mediterranean Sea Offshore Wind classification using MERRA-2 and machine learning models. Renewable Energy. Vol 190, 2022, https://doi.org/10.1016/j.renene.2022.03.110
- M. Neshat, *M. Majidi Nezhad*, S. Mirjalili, G. Piras, D. Astiaso Garcia. Quaternion convolutional long short-term memory neural model with an adaptive decomposition method for wind speed forecasting: North Aegean islands case studies. Energy Conversion and Management. Vol 259, 2022. https://doi.org/10.1016/j.enconman.2022.115590
- Agostinelli, S. Cumo, F. *Majidi Nezhad,* M. Orsini, G. Piras, G. Renewable Energy System Controlled by Open-Source Tools and Digital Twin Model: Zero Energy Port Area in Italy. Energies 2022, 15, 1817. https://doi.org/10.3390/en15051817

- A. Heydari, *M. Majidi Nezhad* et al. Air pollution forecasting application based on deep learning model and optimization algorithm. Clean Technologies and Environmental Policy. https://doi.org/10.1007/s10098-021- 02080-5
- Radfar, S., Panahi, R., *Majidi Nezhad, M.,* Neshat, M. A Numerical Methodology to Predict the Maximum Power Output of Tidal Stream Arrays. Sustainability, 2022, 14(3), 1664. https://doi.org/10.3390/su14031664
- *Majidi Nezhad. M.,* Neshat, M., Piras, G., Garcia, D.A., Sylaios, G. Marine Online Platforms of Services to Public End-Users—The Innovation of the ODYSSEA Project. Remote Sensing, 2022, 14(3), 572. https://doi.org/10.3390/rs14030572
- Nastasi, B., *Majidi Nezhad*, M. GIS and remote sensing for renewable energy assessment and maps. Energies, 2022, 15(1), 14. https://doi.org/10.3390/en15010014
- *Majidi Nezhad, M.,* Nastasi, B., Groppi, D., ...Piras, G., Astiaso Garcia, D. Green Energy Sources Assessment Using Sentinel-1 Satellite Remote Sensing. Frontiers in Energy Research, 2021, 9, 649305. https://doi.org/10.3389/fenrg.2021.649305
- Makkiabadi, M., Hoseinzadeh, S., Taghavirashidizadeh, A., ...*Majidi Nezhad, M.,* Piras, G. Performance evaluation of solar power plants: A review and a case study. Processes, 2021, 9(12), 2253. https://doi.org/10.3390/pr9122253
- Razmjoo, A., Rezaei, M., Mirjalili, S., *Majidi Nezhad, M.,* Piras, G. Development of sustainable energy use with attention to fruitful policy. Sustainability, 2021, 13(24), 13840. https://doi.org/10.3390/su132413840
- M. Majidi Nezhad et al. A novel forecasting model for wind speed assessment using sentinel family satellites images and machine learning method. Renewable Energy. https://doi.org/10.1016/j.renene.2021.08.013
- Lamagna, M., Groppi, D., Majidi Nezhad, M., Piras, G. A COMPREHENSIVE REVIEW on DIGITAL TWINS for SMART ENERGY MANAGEMENT SYSTEM. International Journal of Energy Production and Management, 2021, 6(4), pp. 323–334.
- Makkiabadi, M., Hosseinzadeh, S., *Majidi Nezhad,* M., Sohani, A., Groppi, D. Techno-economic study of a new hybrid solar desalination system for producing fresh water in a hot–arid climate. Sustainability (Switzerland), 2021, 13(22), 12676. https://doi.org/10.3390/su132212676
- E. Amini, R. Asadi, D. Golbaz, M. Nasiri, S. Taghi Omid Naeeni, *M. Majidi Nezhad* et al. Comparative Study of Oscillating Surge Wave Energy Converter Performance: A Case Study for Southern Coasts of the Caspian Sea. Sustainability. https://doi.org/10.3390/su131910932
- A. Razmjoo, P. Alberg Østergaard, M. Denaï, *M. Majidi Nezhad,* S. Mirjalili. Effective policies to overcome barriers in the development of smart cities. Energy Research & Social Science. https://doi.org/10.1016/j.erss.2021.102175
- M. Neshat, *M. Majidi Nezhad et al.* Wind turbine power output prediction using a new hybrid neuroevolutionary method. Energy 201. 229, 120617. https://doi.org/10.1016/j.energy.2021.120617
- A. Razmjoo, *M. Majidi Nezhad et al.* Investigating smart city development based on green buildings, electrical vehicles and feasible indicators. Sustainability 2021, 13(14), 7808; https://doi.org/10.3390/su13147808
- M. Neshat, N. Sergiienko, S. Mirjalili, *M. Majidi Nezhad*, Multi-mode wave energy converter design optimisation using an improved moth flame optimisation algorithm. Energies 2021, 14(13), 3737; https://doi.org/10.3390/en14133737
- *M. Majidi Nezhad* et al. A primary offshore wind farm site assessment using reanalysis data: a case study for Samothraki island. Renewable Energy 2021. 172, 667-679. https://doi.org/10.1016/j.renene.2021.03.045
- *M. Majidi Nezhad* et al. A new methodology for offshore wind speed assessment integrating Sentinel-1, ERA-Interim and in-situ measurement. Renewable Energy 2021, 172. 1301-1313. https://doi.org/10.1016/j.renene.2021.03.026
- N. Kokkos, M. Zoidou, K. Zachopoulos, *M. Majidi Nezhad* et al. Wind climate and wind power resource assessment based on gridded scatterometer data: A thracian sea case study. Energies 2021, 14(12), 3448; https://doi.org/10.3390/en14123448
- *M. Majidi Nezhad* et al. A Sediment Detection Analysis with Multi Sensor Satellites: Caspian Sea and Persian Gulf case studies. Proceedings of the 4th World Congress on Civil, Structural, and Environmental Engineering (CSEE'19) Rome, Italy – April, 2019. Paper No. ICEPTP 159. DOI: 10.11159/iceptp19.159

- A. Heydari, *M. Majidi Nezhad* et al. A combined fuzzy gmdh neural network and grey wolf optimization application for wind turbine power production forecasting considering scada data. Energies 2021, 14(12), 3459; https://doi.org/10.3390/en14123459
- M. Neshat, *M. Majidi Nezhad* et al. A deep learning-based evolutionary model for short-term wind speed forecasting: A case study of the Lillgrund offshore wind farm. Energy Conversion and Management 2021. 236, 114002. https://doi.org/10.1016/j.enconman.2021.114002
- E. Amini, *M. Majidi Nezhad* et al, A Comparative Study of Metaheuristic Algorithms for Wave Energy Converter Power Take-Off Optimisation: A Case Study for Eastern Australia, J. Mar. Sci. Eng.2021,9, 490. https://doi.org/10.3390/jmse9050490
- M. Lamagna, B. Nastasi, D. Groppi, *M. Majidi Nezhad* & D. Astiaso Garcia. Hourly energy profile determination technique from monthly energy bills. Build. Simul. (2020). https://doi.org/10.1007/s12273- 020-0698-y
- E. Amini, D. Golbaz, F. Amini, M.Majidi Nezhad, M. Neshat, D.A. Garcia, A parametric study of wave energy converter layouts in real wave models, Energies 2020, 13(22), 6095; https://doi.org/10.3390/en13226095
- A. Heydari, *M. Majidi Nezhad* et al. Short-term electricity price and load forecasting in isolated power grids based on composite neural network and gravitational search optimization algorithm. Applied Energy 277 (2020) 115503. https://doi.org/10.1016/j.apenergy.2020.115503
- M. Neshat, N.Y. Sergiienko, E. Amini, *M. Majidi Nezhad* et al, A new bi-level optimisation framework for optimising a multi-modewave energy converter design: A case study for the marettimo island, mediterranean sea. Energies 2020, 13(20), 5498; https://doi.org/10.3390/en13205498
- *M. Majidi Nezhad* et al. A SWOT Analysis for Offshore Wind Energy Assessment Using Remote-Sensing Potential. Appl. Sci. 2020, 10(18), 6398; https://doi.org/10.3390/app10186398
- A. Razmjoo, N. Khalili, *M. Majidi Nezhad* et al, The main role of energy sustainability indicators on the water management. Modeling Earth Systems and Environment. 2020. https://doi.org/10.1007/s40808-020-00758-1
- *M. Majidi Nezhad* et al, Wind source potential assessment using Sentinel 1 satellite and a new forecasting model based on machine learning: A case study Sardinia islands. Renewable Energy. 155 (2020) 212-224. https://doi.org/10.1016/j.renene.2020.03.148
- *M. Majidi Nezhad* et al, Wind energy potential analysis using Sentinel-1 satellite: A review and a casestudy on Mediterranean islands. Renewable and Sustainable Energy Reviews 109 (2019) 499–513. https://doi.org/10.1016/j.rser.2019.04.059
- D.Vijaykumar, *M. Majidi Nezhad,* G. Laneve. Land Cover Mapping Analysis Using Sentinel 1 Satellite: A Case Study of Hyderabad in INDIA. The 5th International Symposium on Environment Friendly Energies and Applications (EFEA 2018). September 24-26 in Rome, Italy. DOI: 10.1109/EFEA.2018.8617099.
- *M. Majidi Nezhad* et al. Land Cover Classification by using Sentinel-2 Images: A case study in the city of Rome. Proceedings of the 4th World Congress on Civil, Structural, and Environmental Engineering (CSEE'19) Rome, Italy – April, 2019.Paper No. ICEPTP 158. DOI: 10.11159/iceptp19.158.
- *M. Majidi Nezhad* et al. Nearshore wave energy converters comparison and Mediterranean small island grid integration. Sustainable Energy Technologies and Assessments. 30(2018)68-76. https://doi.org/10.1016/j.seta.2018.08.009.
- *M. Majidi Nezhad* et al. Nearshore Wave Energy Assessment of Iranian Coastlines. 4th World Congress on New Technologies (NewTech'18). Madrid, Spain, August 19-21, 2018. DOI:10.11159/icepr18.180.
- *M. Majidi Nezhad* et al. Mapping Sea Water Surface in Persian Gulf, Oil Spill Detection Using Sentinel-1 Images. 4th World Congress on New Technologies (NewTech'18). Madrid, Spain, August 19-21, 2018. DOI: 10.11159/icepr18.179.
- *M. Majidi Nezhad* et al. Oil Spill Detection Analyzing "Sentinel 2" Satellite Images: A Persian Gulf Case Study. 3rd World Congress on Civil, Structural, and Environmental Engineering (CSEE'18). Budapest, Hungary – April 8 - 10, 2018. DOI: 10.11159/awspt18.134.

Special Issue Guest Editor, Scientific Committee Member and Workshops	

- Titled: "GIS and Remote Sensing for Renewable Energy Assessment and Maps".Energies. Journal.https://www.mdpi.com/journal/energies/special_issues/GIS_remote _sensing_renewable_energy_assessment_maps
- Titled: "Remote Sensing and Open-Source Applications of Renewable Energies and Sustainable Management Monitoring". https://www.mdpi.com/journal/sustainability/special_ issues/RESMM_sus.
- Journals Reviewer Board Members of Elsevier's and MDPI Journals.
- Symposium & Workshop. 5th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP'20). Energy and Environment Assessment based on Remote Sensing and Machine Learning. https://iceptp.com/symposium-workshop/
- Scientific Committee. 6th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP'21). March 14, 2021 - March 16, 2021, London, England. https://2021.iceptp.com/scientificcommittee/
- Scientific Advisory Board, 15th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), September 1-5, 2020. Cologne, Germany. https://www.cologne2020.sdewes.org/scientific-advisory-board.

Best award paper

- The 3rd World Congress on Civil, Structural, and Environmental Engineering (CSEE'18) Budapest, Hungary – April 8 - 10, 2018.

PERSONAL SKILLS

Mother tongue(s)   Persian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
C1	C1	C1	C1	C1
Replace with name of language certificate. Enter level if known.				
Italian				
A2	A1	A2	A2	A1
Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Computer skills   SNAP, GNOME, GIS and ENVI software's, ADIOS model, Image processing, MATLAB, HOMER software, NASA and ESA (European Space Agency) satellite images analysis data and reanalysis dataset (MERRA and ECMWF)