Ajloun National University
جامعة عجلون الوطنية

Mohamed Elsharkawy

Mefraq

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Personal Data

Marital Status: Married, four Children
Email:
m.sharkawi@anu.edu.jo
Languages: Arabic native
English- Excellent

EDUCATION

- ❑ **Ph.D**. in Precision Agriculture (Agricultural Sciences), Ain Shams University
  Field: Remote Sensing and GIS Applications, Arid Land Management, Soil & water Management
  Minor Subject : Remote Sensing and GIS Applications.
- ❑ M.Sc. in Precision Agriculture (Agricultural Sciences), Damanhur University
  Field: Soil & water Sciences
- ❑ **B.Sc**. in Natural Resources &Agriculture Engineering, Alexandria University

Current Work

- ❑ **Associate Professor, Faculty of Agriculture, Ajloun National University)**

International Experience &Scholarships

2010/2011: *Erasmus Mundus FFEEBB1* Flow-by-Flow EU-Egypt Bridge Building;
TWENTE University, ITC Faculty of Geo-Information Science and Earth Observation Netherlands 2010/2011.

2016 *Egypt-China Cooperation Program, Ningbo* Polytechnic College "Seminar on Port operation and IT for developing countries"

2019 *IAMZ-CIHEAM* Mediterranean Agronomic Institute of Zaragoza (Spain), June 2019 "Big data techniques and applications in the agri-food system"

2025 *Al al-Bayt University* (Jordan), 13 April 2025 Delivering a lecture entitled: "Applications of Artificial Intelligence in Geology and Mineral Exploration" as part of the scientific symposium organized by Faculty of Earth and Environmental Sciences under the title: "Using Artificial Intelligence in Earth and Environmental Sciences".

Field Experiences

- ❑ *Consultant and Director of the Lands Department at the Consulting Office for Sustainable Agricultural Development, Cairo. Contributed to supervising the planning and design work for an area of 200,000 hectares in Toshka, in cooperation with the Faculty of Engineering, Ain Shams University. Consultant for soil and water quality and the use of remote sensing and GIS in many agricultural projects (Toshka - New Delta).*
- ❑ *Professional experience in remote sensing applications in agriculture for more than 15 years with interest in managing the quality of arid lands, calculating evapotranspiration using satellite images, smart and precision agriculture applications, production of soil capacity maps, productivity maps, irrigation water management maps at the farm level and assessing soil and water quality*

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Publication

❖ Banisalman, A. M., **Elsharkawy, M. M.,** & Labin, A. E. (2025). Tool for the Establishment of Optimal Open Green Spaces Using GIS and Nature-Based Solutions: Al-Sareeh (Jordan) Case Study. *Sustainability*, 17(19), 8647; https://doi.org/10.3390/su17198647

❖ **Elsharkawy, M.M.,** Nabil, M., Farg, E., Arafat, S.M. (2023). Integration of Big Data and Advanced Remote Sensing Techniques to Manage Field Irrigation in Arid Lands. In: Gad, A.A., Elfiky, D., Negm, A., Elbeih, S. (eds) Applications of Remote Sensing and GIS Based on an Innovative Vision. ICRSSSA 2022. Springer Proceedings in Earth and Environmental Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-40447-4_29

❖ Farg, E., Nabil, M., Arafat, S.M., **Elsharkawy, M.M.** (2023). Projecting Climate and Vegetation Cover Change Impacts on Actual Evapotranspiration Using Time-Series Remote Sensing Data. In: Gad, A.A., Elfiky, D., Negm, A., Elbeih, S. (eds) Applications of Remote Sensing and GIS Based on an Innovative Vision. ICRSSSA 2022. Springer Proceedings in Earth and Environmental Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-40447-4_21

❖ **Elsharkawy, M. M.**, Nabil, M., Farg, E., and Arafat, S. M. (2022) Impacts of land-use changes and landholding fragmentation on crop water demand and drought in Wadi El-Farigh, New Delta project, Egypt. *The Egyptian Journal of Remote Sensing and Space Science*, 25(3), 873-885. https://doi.org/10.1016/j.ejrs.2022.08.002

❖ Mohsen Nabil; Eslam Farg; Sayed M. Arafat; Mohamed Aboelghar; Nagwan M. Afify; **Mohamed M. Elsharkawy** (2022) Tree-fruits Crop Type Mapping from Sentinel-1 and Sentinel-2 Data integration in Egypt's New Delta project, *Remote Sensing Applications: Society and Environment*, Volume 27, 100776. https://doi.org/10.1016/j.rsase.2022.100776

❖ AbdelRahman, M. A., Farg, E., Saleh, A. M., Sayed, M., Abutaleb, K., Arafat, S. M., and **Elsharkawy, M. M.** (2022) Mapping of soils and land-related environmental attributes in modern agriculture systems using geomatics. *Sustainable Water Resources Management*, 8(4), 116. https://doi.org/10.1007/s40899-022-00704-2

❖ **Elshaskawy, M.M**.; Sheta, A.E.A.S.; Wahed, M.S. A.E.; Scopa, A. (2022) Tool for the establishment of agro-management zones using GIS and remote sensing techniques for precision farming in Egypt, *Sustainability* 2022, *14*(9), 5437; https://doi.org/10.3390/su14095437

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Continue Publication

❖ Ahmed M. Saleh, **Mohamed M. Elsharkawy**, Mohamed A. E. AbdelRahman, Sayed M. Arafat (2021) "Evaluation of Soil Quality in Arid Western Fringes of the Nile Delta for Sustainable Agriculture", *Applied and Environmental Soil Science*, vol. 2021, Article ID 1434692, https://doi.org/10.1155/2021/1434692

❖ **Mohamed M. Elsharkawy (2023).** Mapping aquifer water quality in the western fringes of Beni-suef governorate for sustainable agriculture, *Eur. Chem. Bull.*, 12 (Si6), 6201-6211.

❖ Abdel Khalek, A. A., Afify, A. A., Salem, H., **Elsharkawy, M. M.,** & Zahra, W. R. (2023). Land Evaluation of Different Land Cover Classes for Agricultural Use in South East of Egypt using Remote Sensing Data. *Scientific Journal of Agricultural Sciences*, *5*(3), 117-130.

❖ Abdel Rahman, M. A. E., Saleh, A. M., **El Sharkawy, M. M.,** Farg, E., Khaled Abutaleb, Marwa Moustafa, Arafat S.M. (2022) Geomatics-Based Mapping of Hydraulic Soil Properties for Agricultural Management, *Annals of Agricultural Science,* Volume 60, Issue 1, March 2022, Page 225-238, DOI: 10.21608/assjm.2022.227887

❖ Nabil, M., Farg, E., Mostafa, M.S., Afify, N.M., **Elsharkawy, M.M.,** Arafat, S.M. (2023). Automatic LU/LC Mapping Using Google Earth Engine: A Case Study of Egypt's New Delta Project. In: Gad, A.A., Elfiky, D., Negm, A., Elbeih, S. (eds) Applications of Remote Sensing and GIS Based on an Innovative Vision. ICRSSSA 2022. Springer Proceedings in Earth and Environmental Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-40447-4_38

❖ Farg, E., Abutaleb, K. A., Arafat, S. M., **El Sharkawy, M. M.,** and Nabil, M. (2020) Assessment of Sentinel-2 data capabilities for vegetation physiological parameters retrieving in the Nile Delta, *Bioscience Research*, 17(1): 467-478.

❖ **El Sharkawy, M.M.** and Kotb, M.M. (2018) Monitoring land-cover changes in Beni-Suef governorate, *the 13th International Conference of Egyptian Soil Science Society, "Management of Water and Soil Resources under Global Climate Changes". 4-5 December 2018. Organized by.* Egyptian Soil Science Society (ESSS)

❖ **El-Sharkawy M.M.,** Sheta A.S., Abd El-Wahed M.S., Arafat S.M., El Behiery O.M. (2016). Precision Agriculture using Remote Sensing and GIS for Peanut Crop Production in Arid Land, *International Journal of Plant & Soil Science*,10 (3): 1-9.

❖ Arafat S.M., Saleh N.S., Aboelghar, M. and **Elshrakawy, M.M**. (2014). Mapping of North Sinai land cover according to FAO-LCCS, *The Egyptian Journal of Remote Sensing and Space Science*, 17 (1): 29-39. http://www.sciencedirect.com/science/article/pii/S1110982314000076.

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Workshop and conference

❑ Speaker in the scientific symposium organized by Faculty of Earth and Environmental Sciences under the title "***Using Artificial Intelligence in Earth and Environmental Sciences***" organized on Al al-Bayt University, 13 April 2025.

❑ Speaker in the "***Agri-Business Exhibition for Agricultural Investment and Green Energy***" organized on the International Fairgrounds-Nasr City, August 27-29, 2024.

❑ Participation in the "***First International Conference on Remote Sensing Applications and Space Sciences***," organized by the National Authority for Remote Sensing and Space Sciences - in the city of Hurghada, Red Sea Governorate, on December 8 to 11, 2022.

❑ Participation in the "*International Scientific Conference on the Role of Scientific Research in Teaching the Arabic Language to Native and Non-Native Speakers*" organized by the International Linguistics House Academy and the IFAD Scientific Platform - Turkey, on August 6 to 9, 2022.

❑ Participation in the tenth scientific conference of Ain Shams University "*The University and Human Building. Towards the New Republic*" Ain Shams University; On 29 - 31 March 2022.

❑ Participation in the conference "***Challenges of Egyptian Agriculture in the Age of Corona***" in July 2020.

❑ Participation in the Fourth International Environmental Conference of Beni-Suef University entitled: "***Risks of Environmental Pollution in Developing Countries***" March 2020.

❑ Participation in the Remote Sensing Technologies Conference entitled: "***The Fourth Conference on Geospatial Technologies***" in *17- 18 December 2019*.

❑ Participation in attending the first international scientific conference of the Faculty of Agriculture at Beni Suef University entitled: "**Scientific research is the engine of agricultural development**" in *4-5 November 2019*.

❑ The 13th International Conference of Egyptian Soil Science Society, "***Management of Water and Soil Resources under Global Climate Changes***". *4-5 December 2018. Organized by* the Egyptian Soil Science Society (ESSS).