





PERSONAL INFORMATION	Dr. Ahmed Elbeltagi
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	Sex Male Date of birth 18/05 / 1992
	Nationality Egyptian

ACADEMIC QUALIFICATIONS

College	Faulty of Agriculture
Department	Agricultural Engineering
Branch	On Farm Irrigation and Drainage Engineering
University	Mansoura University
Graduation year	Bachelor 2013
Grade	Excellent With Honer

EDUCATION

2018 to 2022	PhD degree of College of Environmental and Resources Science, Zhejiang University, Hangzhou, China
2015-2017	Master degree of Agricultural Engineering, Agriculture Faculty, Mansoura University, Mansoura, Egypt
2009-2013	Bachelor degree of Agricultural Engineering, Agriculture Faculty, Mansoura University, Mansoura, Egypt

WORK EXPERIENCE

Nov 2013– Sept 2017	Teaching assistant at Agricultural Engineering Department, Mansoura University, Dakahliya, Egypt.
Oct 2017 – May 2022	Assistant Lecturer at Agricultural Engineering Department, Mansoura University, Dakahliya, Egypt.
June 2022- present	Assistant Professor at Agricultural Engineering Department, Mansoura University, Dakahliya, Egypt.

TRAINING

Training for Hunter Company as irrigation designer
Workshop in college (Irrigation Engineering)
Training on Agricultural Engineering Station

PERSONAL SKILLS

Team work
Self motivated
Communication skills

General Knowledge at Microsoft office of Modulus

Mother tongue(s)	Arabic				
Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Very good	Very good	Very good	Very good	Excellent

CERTIFICATES

- ICDL
- English: TOEFL
- IELTS
- Landscape design
- Human development
- AutoCAD
- Workshop in college (Irrigation Engineering)
- Programming language (C#, Oracle)
- Research Ethics
- Use of technology in teaching
- Competing for research funds
- Legal and Financial Aspects in University Environment
- Managing Time and Meetings
- University Code of Ethics

ADDITIONAL INFORMATION

International Publications

Elbeltagi, A., Srivastava, A., Deng, J., Li, Z., Raza, A., Khadke, L., Yu, Z., El-rawy, M., 2023. Forecasting vapor pressure deficit for agricultural water management using machine learning in semi-arid environments. *Agric. Water Manag.* 283, 108302. <https://doi.org/10.1016/j.agwat.2023.108302>

Farias, D., Souza, R., Difi, S., Abda, Z., Allyson, C., **Elbeltagi, A.**, 2023. Artificial intelligent systems optimized by meta-heuristic algorithms and teleconnection indices for rainfall modeling : The case of a humid region in the Mediterranean basin. *Heliyon* 0–17. <https://doi.org/10.1016/j.heliyon.2023.e15355>

Adnan, R.M., Dai, H., Mostafa, R.R., Reza, A., Islam, T., Kisi, O., **Elbeltagi, A.**, Zounemat-kermani, M., 2023. Application of novel binary optimized machine learning models for monthly Application of novel binary optimized machine learning models for monthly streamflow prediction. *Appl. Water Sci.* <https://doi.org/10.1007/s13201-023-01913-6>

Elbeltagi, A., Seifi, A., Ehteram, M., Zerouali, B., Vishwakarma, D.K., Pandey, K., 2023. GLUE analysis of meteorological-based crop coefficient predictions to derive the explicit equation. *Neural Comput. Appl.* 4. <https://doi.org/10.1007/s00521-023-08466-4>

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Dimple, Singh, P.K., Rajput, J., Kumar, D., Gaddikeri, V., **Elbeltagi, A.**, 2023. Combination of discretization regression with data-driven algorithms for modeling irrigation water quality indices. *Ecol. Inform.* 75, 0–1. <https://doi.org/10.1016/j.ecoinf.2023.102093>

Islam, A.R.M.T., Al Awadh, M., Mallick, J., Pal, S.C., Chakraborty, R., Fattah, M.A., Ghose, B., Kakoli, M.K.A., Islam, M.A., Naqvi, H.R., Bilal, M., **Elbeltagi, A.**, 2023. Estimating ground-level PM_{2.5} using subset regression model and machine learning algorithms in Asian megacity, Dhaka, Bangladesh. *Air Qual. Atmos. Heal.* <https://doi.org/10.1007/s11869-023-01329-w>

Elbeltagi, A., Al-Mukhtar, M., Kushwaha, N. L., Al-Ansari, N., & Vishwakarma, D. K. (2023). Forecasting monthly pan evaporation using hybrid additive regression and data-driven models in a semi-arid environment. *Applied Water Science*, 13(2). <https://doi.org/10.1007/s13201-022-01846-6>

Elbeltagi, A., Srivastava, A., & Kushwaha, N. L. (2023). Meteorological Data Fusion Approach for Modeling Crop Water Productivity Based on Ensemble Machine Learning. *Water*, December 2022. <https://doi.org/10.3390/w15010030>

Elbeltagi, A., Jaiswal, R.K., Galkate, R. V., Kumar, M., Lohani, A.K., Tyagi, J., 2023. Modeling Soil Water Retention Under Different Pressures Using Adaptive Neuro-Fuzzy Inference System. *Water Resour. Manag.* <https://doi.org/10.1007/s11269-023-03439-7>

Elbeltagi, A., Pande, C.B., Kumar, M., Tolche, A.D., Singh, S.K., Kumar, A., Vishwakarma, D.K., 2023. Prediction of meteorological drought and standardized precipitation index based on the random forest (RF), random tree (RT), and Gaussian process regression (GPR) models. *Environ. Sci. Pollut. Res.* <https://doi.org/10.1007/s11356-023-25221-3>

Basin, M., Achite, M., Elshaboury, N., Jehanzaib, M., Vishwakarma, D.K., **Elbeltagi, A.**, 2023. Performance of Machine Learning Techniques for

Meteorological Drought Forecasting in the Wadi Mina Basin , Algeria. Water (Switzerland). <https://doi.org/10.3390/w15040765>

Cimusa Kulimushi, L., Bigabwa Bashagaluke, J., Prasad, P., Heri-Kazi, A.B., Lal Kushwaha, N., Masroor, M., Choudhari, P., **Elbeltagi, A.**, Sajjad, H., Mohammed, S., 2023. Soil erosion susceptibility mapping using ensemble machine learning models: A case study of upper Congo river sub-basin. *Catena* 222. <https://doi.org/10.1016/j.catena.2022.106858>

Dehghanisanij, H., Emami, S., Emami, H., **Elbeltagi, A.**, 2023. Evaluating performance indicators of irrigation systems using swarm intelligence methods in Lake Urmia basin, Iran. *Environ. Dev. Sustain.* <https://doi.org/10.1007/s10668-022-02878-3>

El Bilali, A., Abdeslam, T., Ayoub, N., Lamane, H., Ezzaouini, M.A., **Elbeltagi, A.**, 2023. An interpretable machine learning approach based on DNN, SVR, Extra Tree, and XGBoost models for predicting daily pan evaporation. *J. Environ. Manage.* 327, 116890. <https://doi.org/10.1016/j.jenvman.2022.116890>

Eltarabily, M.G., Abd-Elaty, I., **Elbeltagi, A.**, Zeleňáková, M., Fathy, I., 2023. Investigating Climate Change Effects on Evapotranspiration and Groundwater Recharge of the Nile Delta Aquifer, Egypt. *Water (Switzerland)* 15. <https://doi.org/10.3390/w15030572>

Heddam, S., Kim, S., Danandeh Mehr, A., Zounemat-Kermani, M., Ptak, M., **Elbeltagi, A.**, Malik, A., Tikhmarine, Y., 2023. Bat algorithm optimised extreme learning machine (Bat-ELM): A novel approach for daily river water temperature modelling. *Geogr. J.* <https://doi.org/10.1111/geoj.12478>

Hu, Y., Raza, A., Syed, N.R., Acharki, S., Ray, R.L., Hussain, S., **Elbeltagi, A.**, 2023. Land Use / Land Cover Change Detection and NDVI Estimation in Pakistan ' s Land Use / Land Cover Change Detection and NDVI Estimation in Pakistan ' s Southern Punjab Province. *Water (Switzerland)*. <https://doi.org/10.3390/su15043572>

Noor, R., Arshad, A., Shafeeque, M., Liu, J., Baig, A., **Elbeltagi, A.**, 2023. Combining APHRODITE Rain Gauges-Based Precipitation with Downscaled- TRMM Data to Translate High-Resolution Precipitation Estimates in the Indus Combining APHRODITE Rain Gauges-Based Precipitation with Downscaled-TRMM Data to Translate High-Resolution Pre. *Remote Sens.* <https://doi.org/10.3390/rs15020318>

Sohail, M.T., Manzoor, Z., Ehsan, M., **Elbeltagi, A.**, 2023. Impacts of urbanization , LULC , LST , and NDVI changes on the static water table with possible solutions and water policy discussions: A case from Islamabad,Pakistan.Front.EarthSci.

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Tounkara, F., Ehsan, M., Nasar Iqbal, M., Al-Ansari, N., Hajana, M.I., Shafi, A., **Elbeltagi, A.**, 2023. Analyzing the seismic attributes, structural and petrophysical analyses of the Lower Goru Formation: A case study from Middle Indus Basin Pakistan. Front. Earth Sci. 10.

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Sohail, M. T., Hussain, A., Ehsan, M., Al-Ansari, N., Akhter, M. M., Manzoor, Z., & **Elbeltagi, A.** (2022). Groundwater budgeting of Nari and Gaj formations and groundwater mapping of Karachi, Pakistan. *Applied Water Science*, 12(12), 0–24. <https://doi.org/10.1007/s13201-022-01795-0>

Vishwakarma, D. K., Kumar, R., Kumar, A., Kushwaha, N. L., Kushwaha, K. S., & **Elbeltagi, A.** (2022). Evaluation and development of empirical models for wetted soil fronts under drip irrigation in high-density apple crop from a point source. *Irrigation Science*, 0123456789. <https://doi.org/10.1007/s00271-022-00826-7>

Elbeltagi, A., Rizwan, M., Mokhtar, A., Deb, P., Abdullahi, G., Kushwaha, N.L., Peroni, L., Malik, A., Kumar, N., Deng, J., 2020. Spatial and temporal variability analysis of green and blue evapotranspiration of wheat in the Egyptian Nile Delta from 1997 to 2017. *J. Hydrol.* 125662. <https://doi.org/10.1016/j.jhydrol.2020.125662>

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Elbeltagi, A., Zhang, L., Deng, J., Juma, A., Wang, K., 2020. Modeling monthly crop coefficients of maize based on limited meteorological data : A case study in Nile Delta, Egypt. *Comput. Electron. Agric.* 173, 105368. <https://doi.org/10.1016/j.compag.2020.105368>

Elbeltagi, A., Deng, J., Wang, K., Malik, A., Maroufpoor, S., 2020. Modeling long-term dynamics of crop evapotranspiration using deep learning in a semi-arid environment. *Agric. Water Manag.* 241, 106334. <https://doi.org/10.1016/j.agwat.2020.106334>

Elbeltagi, A., Rizwan, M., Malik, A., Mehdinejadiani, B., Srivastava, A., Singh, A., Deng, J., 2020. The impact of climate changes on the water footprint of wheat and maize production in the Nile Delta, Egypt. *Sci. Total Environ.* 743, 140770. <https://doi.org/10.1016/j.scitotenv.2020.140770>

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Muhammad Shafeeque , Arfan Arshad , **Ahmed Elbeltagi**, Abid Sarwar , Quoc Bao Pham, Shahbaz Nasir Khan, Adil Dilawar & Nadhir Al-Ansari (2021) Understanding temporary reduction in atmospheric pollution and its impacts on coastal aquatic system during COVID-19 lockdown: a case study of South Asia, *Geomatics, Natural Hazards and Risk*, 12:1, 560-580. <https://doi.org/10.1080/19475705.2021.1885503>

Elbeltagi, A.; Kumari, N.; Dharpure, J.K.; Mokhtar, A.; Alsafadi, K.; Kumar, M.; Mehdinejadiani, B.; Ramezani Etedali, H.; Brouziyne, Y.; Towfiqul Islam, A.R.M.; et al. Prediction of Combined Terrestrial Evapotranspiration Index (CTEI) over Large River Basin Based on Machine Learning Approaches. *Water* 2021, 13, 547. <https://doi.org/10.3390/w13040547>

Jerin, J.N., Islam, H.M.T., Islam, T., Shahid, S., Mehnaz, B., Ronghao, C., **Elbeltagi, A.**, 2021. Spatiotemporal trends in reference evapotranspiration and its driving factors in Bangladesh. *Theor. Appl. Climatol.* <https://doi.org/10.1007/s00704-021-03566-4>

Zerouali, B.; Al-Ansari, N.; Chettih, M.; Mohamed, M.; Abda, Z.; Santos, C.A.G.; **Elbeltagi, A.** An Enhanced Innovative Triangular Trend Analysis of Rainfall Based on a Spectral Approach. *Water* **2021**, *13*, 727. <https://doi.org/10.3390/w13050727>

Zerouali, B., Chettih, M., Alwetaishi, M., Abda, Z., **Elbeltagi, A.**, Augusto Guimarães Santos, C., E. Hussein, E., 2021. Evaluation of Karst Spring Discharge Response Using Time-Scale-Based Methods for a Mediterranean Basin of Northern Algeria. *Water* *13*, 2946. <https://doi.org/10.3390/w13212946>

Pande C.B., Moharir K.N., Kumar Singh S., Varade A.M., **Elbeltagi A.**, Khadri S.F.R., Choudhari P. Estimation of crop and forest biomass resources in a semi-arid region using satellite data and GIS, *Journal of the Saudi Society of Agricultural Sciences*, <https://doi.org/10.1016/j.jssas.2021.03.002>

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Adnan, R.M., Jaafari, A., Mohanavelu, A., Kisi, O., **Elbeltagi, A.**, 2021. Novel Ensemble Forecasting of Streamflow Using Locally Weighted Learning Algorithm. *Sustainability* *13*, 5877. <https://doi.org/10.3390/su13115877>

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on machine learning algorithms. *Comput. Electron. Agric.* 191. <https://doi.org/10.1016/j.compag.2021.106501>

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Awards

- 1- Prize of Scientific research publications for high quality journals in 2020
- 2- Prize of Scientific research publications for high quality journals in 2021

- 3- First rank in high quality articles related to climate change among Egyptian universities

Reviewer

- 1- Agricultural Water Management
- 2- American Journal of Agricultural and Biological Sciences
- 3- Journal of Agricultural Studies
- 4- Journal of Hydrology
- 5- Water
- 6- Land
- 7- Sustainability
- 8- Electronics
- 9- Geocarto International
- 10- Engineering Applications of Artificial Intelligence
- 11- Imaging Science
- 12- Irrigation Science
- 13- Cybernetics and Systems
- 14- Science of the total Environment
- 15- Remote Sensing

Presentations

Drought effects, causes and it's monitoring

Drought Measurements, Prevention and Preparation

A Sustainable solution for drought-Innovation New Network

Spatial variability analysis of soil quality based on GIS and Remote Sensing Techniques

New Technologies in Agricultural Resources and Environment Research

Dynamics of Green and Blue Water Evapotranspiration in Egyptian Nile Delta

Applications of Remote Sensing and GIS in Detection the Effect of Irrigation Water Quality on Crop Water Footprint

Planning and designing for sprinkler irrigation systems

Mapping Crop Water Productivity Using Remote Sensing Technology

International Projects

Impacts of climate changes and human activities on runoff and erosion based artificial intelligence and big data: Case study in Egypt and China; ASRT Bilateral Research with NSFC 2023-2025

Seminars

- 1- Remote sensing technology as a precision farming tool to detect moisture and nitrogen stress with particular reference to the potato crop
- 2- Estimation of maize crop coefficients based on limited data
- 3- Managing crop evapotranspiration using remote sensing and GIS
- 4- Applications of remote sensing technology in agricultural activities
- 5- Use of ground based remote sensors for detection canopy water stress of crops
- 6- Spatial variability analysis of soil quality based on GIS and remote sensing techniques
- 7- Land surface temperature (LST) and its applications
- 8- Applications of water footprint and its management

Workshops

- 1- Earth Observation for Sustainable Development in Developing Countries, AIRCAS, China
- 2- Atmospheric Observations and Weather Monitoring Techniques, Institute of Science and Technology (SRMIST) & South Asian Meteorological Association (SAMA)
- 3- Biochar Role on Sustainable Soil and Environment, arranged by Center for Research Innovation and Development (CRID), Dhaka, Bangladesh; and the Journal of Sustainable Soil and Environment on Jan 9, 2021.

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Scopus Website:

<https://www.scopus.com/authid/detail.uri?authorId=57204724397>

Signature

A handwritten signature in blue ink that reads "Ahmed Mohamed Elbeltagi". The signature is written in a cursive style and is positioned above a thin horizontal line.

Your Sincerely