- o ScienceUp with Grant **6622** (2020-2021) from Academy of Scientific Research and Technology
- o ScienceUp with Grant **6619** (2020-2021) from Academy of Scientific Research and Technology
- o ScienceUp with Grant **6624** (2020-2021) from Academy of Scientific Research and Technology
- o Clinical agriculture Project with SDTF (2020-2022) from Academy of Scientific Research and Technology.
- o China Postdoctoral Science Foundation under Grant No. 2019M652647 (2019-2021).

- **Awards**
  - o Egyptian Encouragement Award 2020 in Engineering field.
  - o Award of publication in high journals from Zagazig university (for years 2015-2020).
  - o One time the award of publication in high journals from Wuhan university and technology, China for the publication during the Post-doctoral (2017-2018).

- **Teaching Course**
  - o Mohamed teaching many courses of computer science at several institutes such as Zagazig University. Nahda University, Beni Suef, and Higher Technology institute. Some of these courses are:
    - ▪ Programming Languages (C++, C#, Java, Matlab).
    - ▪ Database
    - ▪ Algorithms
    - ▪ Data structure
    - ▪ Distributed System
    - ▪ Artificial Intelligence
  - o Teaching the SPSS Course for staff of Zagazig University.
  - o Teaching the ICDL modules for staff of Zagazig University.
  - o Supervisor master students from 2015-2021.

- **LIST OF PUBLICATIONS**

Publications After PhD (2017-2021):

[J1] Al-qaness, M.A., Ewees, A.A., Fan, H., Abualigah, L. and Abd Elaziz, M., 2022. Boosted ANFIS model using augmented marine predator algorithm with mutation operators for wind power forecasting. *Applied Energy*, *314*, p.118851.

[J2] Abd Elaziz, M., Ghoneimi, A., Elsheikh, A.H., Abualigah, L., Bakry, A. and Nabih, M., 2022. Predicting Shale Volume from Seismic Traces Using Modified Random Vector Functional Link Based on Transient Search Optimization Model: A Case Study from Netherlands North Sea. *Natural Resources Research*, pp.1-17.

[J3] Yousri, D., **Mohamed Abd Elaziz**, Abualigah, L., Oliva, D., Al-Qaness, M.A. and Ewees, A.A., 2021. COVID-19 X-ray images classification based on enhanced fractional-order cuckoo search optimizer using heavy-tailed distributions. *Applied Soft Computing*, *101*, p.107052.

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[J7] Elsheikh, A.H., Katekar, V.P., Muskens, O.L., Deshmukh, S.S., **Mohamed Abd Elaziz** and Dabour, S.M., 2021. Utilization of LSTM neural network for water production forecasting of a stepped solar still with a corrugated absorber plate. *Process Safety and Environmental Protection*, *148*, pp.273-282.

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[J9] **Mohamed Abd Elaziz**, Hosny, K. M., Hemedan, A. A., & Darwish, M. M. (2020). Improved recognition of bacterial species using novel fractional-order orthogonal descriptors. *Applied Soft Computing*, 106504.

[J10] Yousri, D., Babu, T. S., Mirjalili, S., Rajasekar, N., & **Mohamed Abd Elaziz** (2020). A novel objective function with artificial ecosystem-based optimization for relieving the mismatching power loss of large-scale photovoltaic array. *Energy Conversion and Management*, *225*, 113385.

[J11] Essa, F. A., **Mohamed Abd Elaziz**, & Elsheikh, A. H. (2020). Prediction of power consumption and water productivity of seawater greenhouse system using random vector functional link network integrated with artificial ecosystem-based optimization. *Process Safety and Environmental Protection*, *144*, 322-329.

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[J13] Issa, M., & **Mohamed Abd Elaziz** (2020). Analyzing COVID-19 virus based on enhanced fragmented biological Local Aligner using improved Ions Motion Optimization algorithm. *Applied soft computing*, 106683.

[J14] Jouhari, H., Lei, D., Al-qaness, M. A., **Mohamed Abd Elaziz,** Damaševičius, R., Korytkowski, M., & Ewees, A. A. (2020). Modified Harris Hawks Optimizer for Solving Machine Scheduling Problems. *Symmetry*, *12*(9), 1460.

[J15] Ewees, A. A., **Mohamed Abd Elaziz,** & Oliva, D. (2020). A New Multi-Objective Optimization Algorithm Combined with Opposition-based Learning. *Expert Systems with Applications*, 113844.

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[J17]   Aljarah, I., Habib, M., Faris, H., Al-Madi, N., Heidari, A. A., Mafarja, M., **Mohamed Abd Elaziz** & Mirjalili, S. (2020). A dynamic locality multi-objective salp swarm algorithm for feature selection. *Computers & Industrial Engineering*, *147*, 106628.

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[J26]   **Mohamed Abd Elaziz**, Heidari, A. A., Fujita, H., & Moayedi, H. (2020). A competitive chain-based Harris Hawks Optimizer for global optimization and multi-level image thresholding problems. *Applied Soft Computing*, 106347.

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[J39]   Al-qaness, M. A., Ewees, A. A., Fan, H., & **Mohamed Abd Elaziz** (2020). Optimized Forecasting Method for Weekly Influenza Confirmed Cases. *International Journal of Environmental Research and Public Health*, *17*(10), 3510.

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[J53]   Fathy, A., **Mohamed Abd Elaziz,** & Alharbi, A. G. (2020). A novel approach based on hybrid vortex search algorithm and differential evolution for identifying the optimal parameters of PEM fuel cell. *Renewable Energy*, *146*, 1833-1845.

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[J55]   Attiya, I., **Mohamed Abd Elaziz**, & Xiong, S. (2020). Job Scheduling in Cloud Computing Using a Modified Harris Hawks Optimization and Simulated Annealing Algorithm. *Computational Intelligence and Neuroscience*, *2020*.

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