"Water First! Workshop for African Women in Water Research" Virtual Meeting: 20 &27 July, 10 & 17 August 2021

Nashwa Abdel-moneim Khamis Shaaban

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Mentee

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Egypt

Area of Research

- Spatiotemporal variations in water quality parameters.
- Sediment quality.
- Metal's bioremediation (microbial, algal, algal-bacterial consortia).
- Metal's bioavailability, toxicity, and bioaccumulation.
- Ecological and human health risk assessment.
- Internal phosphorus loading in Eutrophic lakes.
- Biogeochemical cycle of nutrients.
- Microplastic assessment in the coastal environment (water, sediment, and fish).
- Ocean acidification

Area of Teaching

- Chemistry of water (marine and freshwater)
- Analytical marine chemistry
- Water pollution
- Marine microbiology
- Limnology
- Research project

Biography

Assistant professor of marine chemistry and pollution, in Oceanography Department, Faculty of Science, Alexandria University. Quality Manager of Electron Microscope Unit (EMU) at the Faculty of Science, Alexandria University. Coordinator for Oceanography/Chemistry program, faculty of Science, Alexandria University (2017-2019). Recently, Shaaban is a trainer of Innovative Teaching Strategies (ITS), Advanced Learning Management System (LMS) at the Center of Excellence for Water. Since 2016, Shaaban works as an Internal auditor at the Quality Assurance Unit at the faculty of science.

Shaaban has obtained her MSc and Ph.D. from the Faculty of Science, Alexandria University. She studied the distribution of organic matter and nutrients in water and sediments of the eutrophic lake and its drainage system, to control the organic pollution. This is followed by assessing the water and sediment qualities of Lake Mariut after diverting the point source of pollution (as a step of lake rehabilitation) by measuring physicochemical, nutrients, organic matter, and metals in water and sediment. In addition to studying the microbial role in metal detoxification. Shaaban's research interests are focused on (1) The daily and diurnal variation in chlorophyll-a and abiotic parameters in coastal waters, (2) The Role of algal-bacterial consortia in the removal of metals from polluted waters, (3) Bioaccumulation of metals in aquatic organisms, (4) Internal phosphorus loading in Eutrophic lakes, and (5) Speciation

of nutrient salts and bioavailability of metals in water and sediments of the lotic and lentic environment (6) Ecological



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and human health risk assessments. She has publications in local and international journals and conferences in the field of water and sediments qualities monitoring and assessment, ocean acidification, and oil pollution control.

Shaaban was a member of the national workshop team of "Saving Egyptian lakes, Lake Mariut Model), organized by the Ministry of Higher Education and Scientific Research (2017). She was the representative of Alexandria University at Anticipatory Flood Management in Alexandria, Egypt (2018).

Shaaban has experience in teaching courses related to marine chemistry, marine analytical chemistry, aquatic pollution, marine microbiology, limnology, and field studies for undergraduate and postgraduate students. Her teaching and learning strategies are built on lectures, lab, and field trips in addition to scientific visits to the industrial sector and water and wastewater treatment plants. Shaaban was a supervisor of students for MSc and Ph.D. degrees at Alexandria and Kafr-El Shikh Universities. She was a research member of two of the Joint Egyptian Japanese Scientific Cooperation (JEJSC) projects. Recently She attended two TOT workshops about the advanced LMS workshop and innovative teaching strategies at Utah State University offered by the center of excellence for water.

Shaaban looking forward developing her current water research lab to be accredited in water and sediment qualities parameters (ISO 17025). Awarding a research grant, focused on improving the water quality of lakes, seas, and open channels, which will be offered by national and international funders. Building scientific networks with expertise in the field of water and sediment chemistry and pollution, in addition to water resources management.

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Assistant professor - Quality manager of Electron Microscope Unit, Trainer of Innovative Teaching Strategies —

Trainer of Advanced Learning Management System.

Faculty of Science - Alexandria University - Egypt.







- Microplastic (water, sediment, fish)
- -Daily variation in water quality
- -Role of algal-bacterial consortia in removal of metals]



Ph.D.

Marine chemistry & pollution

[[Metals in Lake & Microbial Role in their Detoxification]]



M.Sc.

Marine chemistry & pollution

[[Organic Matter and Nutrients in lotic and lentic waters]]



B. Sc.

Oceanography/Chemistry