

Kaltham Alamiry

Curriculum Vitae

Personal Details

Name: Kaltham Alamiry

Nationality: UAE

Address: University of Khorfakkan, Sharjah, UAE

Mobile/office: 092085405

Email Address: Kaltham.ismail@ukf.ac.ae

Academic Qualifications

- **PhD:** Environmental Engineering (*Thesis: Modeling Physical–Biogeochemical Interactions in the Marine System of the Arabian Gulf*), from Khalifa University, UAE-Abu Dhabi.
- **MSc:** Water & Environmental Engineering (*Thesis: Achieving efficient nitrogen removal in high temperature wastewater treatment: A microbial process modelling approach*), from Masdar Institute of Science & Technology, UAE- Abu Dhabi, in collaboration with Massachusetts Institute of Technology (MIT), USA.
- **BSc:** Mathematics, from University of Sharjah, UAE-Sharjah.

Employment History

- **Assistant Professor**, University of Khorfakkan, College of Marine Sciences and Aquatic Biology, Sharjah-Khorfakkan
January 13, 2025 – present
- **Visiting Researcher**, Khalifa University, College of Engineering, Abu Dhabi
December 19, 2024 – May 1, 2024
- **Part-time Faculty**, Applied Mathematics for Scientists (Calculus II)
University of Khorfakkan, College of Marine Sciences and Aquatic Biology, Sharjah-Khorfakkan
August 22, 2024 – Present
- **Part-time Faculty**, Mathematics for Scientists (Calculus I)
University of Khorfakkan, College of Marine Sciences and Aquatic Biology, Sharjah-Khorfakkan
February 8, 2024 – May 15, 2024

- **Teaching & Research Assistant** as part of the PhD program – 2020-2023
- **Teaching Assistant** – Sandoq Al Watan-Johns Hopkins Center for Talented Youth program – Summer 2021
 - Proving What Can't Be Proven course.
- **Teaching Assistant** – Sandoq Al Watan-Johns Hopkins Center for Talented Youth program – Summer 2020
 - Mathematical modeling course.
- **Teaching Assistant** – Sandoq Al Watan-Johns Hopkins Center for Talented Youth program – Summer 2018
 - Microbiology course.

Professional Membership & Activities

- **Member**, *American Geophysical Union (AGU)* — since December 2023
- **Member**, *European Geosciences Union (EGU)* — ID: 793788 (2025–present)
- **Member**, *Abu Dhabi Environmental Research Network (ADERN)* — Environment Agency–Abu Dhabi (EAD)
- **Reviewer**, *Scientific Reports* (Nature Portfolio)
- **Participant**, The First Arabian Regional Scientific Seagrass Workshop, Abu Dhabi, UAE (April–May 2025).
- **Completed**, *Introductory Statistics with R for Biological Sciences (16 hours)*, CIIMAR – Porto, Portugal, **January 13–16, 2025**
- **Invited Speaker**, Sharjah TV “Amasi” Program (September 2025) – discussed UKF’s College of Marine Sciences and SMSRC.

Teaching Experience

- **Teaching & Research assistant** as a part of the PhD program – 2020-2023
 - Mentored and trained new PhD students in the setup of the DARWIN biogeochemical model.
- **Teaching Assistant** – Sandoq Al Watan-Johns Hopkins Center for Talented Youth program – Summer 2020
- **Teaching Assistant** – Sandoq Al Watan-Johns Hopkins Center for Talented Youth program – Summer 2018
- **Teaching & Research Assistant** as a part of the MSc program – 2015-2017
 - Experience in programming using LabVIEW, demonstrating a strong aptitude for developing data acquisition and control systems

Conferences & Workshops

- **Ismail, KA., & AlShehhi, MR.** (under preparation). *Effect of dust deposition on the productivity of the Arabian Gulf and Sea of Oman. Prepared and to be submitted to a journal.*

- **Ismail, KA., & AlShehhi, MR.** (under preparation). *A physical-biogeochemical model of the Arbaian Gulf and Sea of Oman waters: Model description and validation with field nutrient and chlorophyll data. Prepared and to be submitted to a journal.*
- **Attended the IUCN World Conservation Congress 2025**, Abu Dhabi, United Arab Emirates, **October 9–15, 2025**
- **Attended the First Arabian Regional Scientific Seagrass Workshop**, organized by the Environment Agency–Abu Dhabi, UNEP, CMS–Dugong MoU, and Yas SeaWorld Research & Rescue, Abu Dhabi, United Arab Emirates, **April 30–May 1, 2025.**
- **Ismail, K. A., & Salim, M.** (2025). *Regional phytoplankton responses to upwelling in the Arabian Gulf and northwestern Arabian Sea adjacent to the Omani coast.* *Frontiers in Marine Science*, 12, 1505393. <https://doi.org/10.3389/fmars.2025.1505393>
- **Ismail, KA (2025).** *Unveiling the Impact of Upwelling on Phytoplankton Productivity in the Arabian/Persian Gulf and Sea of Oman.* Oral presentation at the **European Geosciences Union (EGU) General Assembly 2025, Vienna, Austria**, April 28-May 2025.
- **Ismail, KA (2024).** *Influence of deposition on primary production in the Arabian Gulf and Sea of Oman.* Oral presentation at the **Mediterranean Geophysical Union (MedGU2024)**, **Barcelona, Spain**, November 26-30, 2024.
- **Ismail, KA (2023).** *Modeling the Arabian Gulf Waters: Description and Validation of a Physical-Biogeochemical Model using Nutrient and Chlorophyll Data.* Oral presentation at the **Mediterranean Geophysical Union (MedGU2023)**, **Istanbul-Turkey**, November 26-30, 2023.
- **Ismail, KA (2023).** *Dust deposition impact on primary production in the Arabian Gulf and Sea of Oman.* Oral presentation at the **International Conference on Sustainable Energy-Water-Environment Nexus (ICSEWEN23)** in Desert Climate 2023, **Doha-Qatar**, October 30-November 2, 2023.
- **Ismail, KA., & AlShehhi, MR. (2023).** *Applications of biogeochemical models in different marine environments: A review.* *Front. Environ. Sci.* (11) [doi: 10.3389/fenvs.2023.1198856](https://doi.org/10.3389/fenvs.2023.1198856).
- **Ismail, KA (2023).** *Upwelling and nutrients dynamics in the Arabian Gulf and Sea of Oman.* Oral presentation at the **International Conference & Exhibition for Science (ICES2023)**, **Riyadh-KSA**, February 6-8, 2023.
- **Ismail, K. (2022).** *Effect of dust deposition in the Arabian Gulf and Sea of Oman.* Poster presentation at the **American Geophysical Union conference (AGU2022)**, **Chicago-USA**, December 16-18, 2022.

- **Ismail KA, Al Shehhi MR (2022).** *Upwelling and nutrient dynamics in the Arabian Gulf and sea of Oman*. PLoS ONE 17(10): e0276260. <https://doi.org/10.1371/journal.pone.0276260>.
- **Ismail, KA (2017).** *Thermodynamic Modelling Is Needed to Describe the Effect of High Temperature on Microbial Nitrogen Removal Processes*. Oral presentation at the **Frontiers International Conference on Wastewater Treatment (FICWT2017)**, Palermo-Italy, May 21-24, 2017.
- **Ismail, KA (2016).** *Thermodynamic Modelling Is Needed to Describe the Effect of High Temperature on Microbial Nitrogen Removal Processes*. Oral presentation at the **Fifth International Conference on Water Energy and Environment (ICWE2016)**, Sharjah-UAE, Feb 28, 2016.
- **Ismail, KA (2015).** *Thermodynamic Modelling Is Needed to Describe the Effect of High Temperature on Microbial Nitrogen Removal Processes*. Oral presentation at **UAE Graduate Student Research conference (GSRC2015)**, Abu Dhabi National Exhibition Centre (ADNEC), Abu Dhabi.

Research Interests

- Marine ecosystem modelling.
- Nutrient management and eutrophication control.
- Biogeochemical cycling in marine environments.
- Water and wastewater treatment.
- Environmental engineering & sustainability.
- Water quality and pollution control.

Research Publications (Books, Journals & Conferences papers)

- **Ismail, KA., & AlShehhi, MR.** (under preparation). *Effect of dust deposition on the productivity of the Arabian Gulf and Sea of Oman*. Prepared and to be submitted to a journal.
- **Ismail, KA., & AlShehhi, MR.** (under preparation). *A physical-biogeochemical model of the Arabian Gulf and Sea of Oman waters: Model description and validation with field nutrient and chlorophyll data*. Prepared and to be submitted to a journal.
- **Ismail, K. A., & Salim, M.** (2025). *Regional phytoplankton responses to upwelling in the Arabian Gulf and northwestern Arabian Sea adjacent to the Omani coast*. Frontiers in Marine Science, 12, 1505393. <https://doi.org/10.3389/fmars.2025.1505393>

- **Ismail, KA (2025).** *Unveiling the Impact of Upwelling on Phytoplankton Productivity in the Arabian/Persian Gulf and Sea of Oman.* Oral presentation at the **European Geosciences Union (EGU) General Assembly 2025, Vienna, Austria**, April 28-May 2025.
- **Ismail, KA (2024).** *Influence of deposition on primary production in the Arabian Gulf and Sea of Oman.* Oral presentation at the **Mediterranean Geophysical Union (MedGU2024)**, **Barcelona, Spain**, November 26-30, 2024.
- **Ismail, KA (2023).** *Modeling the Arabian Gulf Waters: Description and Validation of a Physical-Biogeochemical Model using Nutrient and Chlorophyll Data.* Oral presentation at the **Mediterranean Geophysical Union (MedGU2023)**, **Istanbul-Turkey**, November 26-30, 2023.
- **Ismail, KA (2023).** *Dust deposition impact on primary production in the Arabian Gulf and Sea of Oman.* Oral presentation at the **International Conference on Sustainable Energy-Water-Environment Nexus (ICSEWEN23)** in Desert Climate 2023, **Doha-Qatar**, October 30-November 2, 2023.
- **Ismail, KA., & AlShehhi, MR. (2023).** *Applications of biogeochemical models in different marine environments: A review.* *Front. Environ. Sci.* (11) [doi: 10.3389/fenvs.2023.1198856](https://doi.org/10.3389/fenvs.2023.1198856).
- **Ismail, KA (2023).** *Upwelling and nutrients dynamics in the Arabian Gulf and Sea of Oman.* Oral presentation at the **International Conference & Exhibition for Science (ICES2023)**, **Riyadh-KSA**, February 6-8, 2023.
- **Ismail, K. (2022).** *Effect of dust deposition in the Arabian Gulf and Sea of Oman.* Poster presentation at the **American Geophysical Union conference (AGU2022)**, **Chicago-USA**, December 16-18, 2022.
- **Ismail KA, Al Shehhi MR (2022).** *Upwelling and nutrient dynamics in the Arabian Gulf and sea of Oman.* *PLoS ONE* 17(10): e0276260. <https://doi.org/10.1371/journal.pone.0276260>.
- **Ismail, KA (2017).** *Thermodynamic Modelling Is Needed to Describe the Effect of High Temperature on Microbial Nitrogen Removal Processes.* Oral presentation at the **Frontiers International Conference on Wastewater Treatment (FICWT2017)**, **Palermo-Italy**, May 21-24, 2017.
- **Ismail, KA (2016).** *Thermodynamic Modelling Is Needed to Describe the Effect of High Temperature on Microbial Nitrogen Removal Processes.* Oral presentation at the **Fifth International Conference on Water Energy and Environment (ICWE2016)**, **Sharjah-UAE**, Feb 28, 2016.
- **Ismail, KA (2015).** *Thermodynamic Modelling Is Needed to Describe the Effect of High Temperature on Microbial Nitrogen Removal Processes.* Oral presentation at **UAE Graduate**

Student Research conference (GSRC2015), Abu Dhabi National Exhibition Centre (ADNEC), Abu Dhabi.

Peer Review Activities

Scientific Reports

Research, Teaching Grants

Awards and Recognitions

- **Certificate of Achievement: Awarded First place for best oral presentation** International Conference on Sustainable Energy-Water-Environment Nexus (ICSEWEN23) in Desert Climate (2023).
- **Awarded as a Student Mentor:** Recognized for contributions to the student orientation program at Masdar Institute (2016).
- **Chancellor's Prize:** University of Sharjah (2013).

University & Community Services

- **Attended the First Arabian Regional Scientific Seagrass Workshop**, Abu Dhabi, UAE (Apr 30–May 1 2025).
- **Attended the IUCN World Conservation Congress 2025**, Abu Dhabi, UAE (Oct 9–15 2025).
- **Interviewed on Sharjah TV – “Amasi” Program (September 2025)** to discuss the **College of Marine Sciences & Aquatic Biology** and the establishment of the **Sharjah Marine Science Research Center (SMSRC)**, highlighting the center's goals in marine research and sustainability.
- **Academic advisor** for undergraduate marine science students.
- **Member of the College of Marine Sciences & Aquatic Biology committees.**