

# Roqaya Alamiry

## Curriculum Vitae

### Personal Details

**Name:** Roqaya Alamiry

**Nationality:** UAE

**Address:** University of Khorfakkan, Sharjah, UAE

**Mobile:** 408

**Email Address:** [Roqaya.ismail@ukf.ac.ae](mailto:Roqaya.ismail@ukf.ac.ae)

### Academic Qualifications

- PhD in Environmental Engineering, Khalifa University - 2018-2022
- M.Sc. in Water and Environmental Engineering, Masdar Institute - 2015-2017
- B.Sc. in Biotechnology, Sharjah University - 2010-2014

### Employment History

- Assistant Professor – Head of Marine Biology Department (2024-Present)  
Khorfakkan University, College of Marine Sciences & Aquatic Biology
- Doctoral Researcher (2018 – 2022)  
Khalifa University, Environmental Engineering
- Applied research projects in one of the top research facilities in the MENA region.
- Assisting students and research scientists on their technical experiments.
- Actively involved in CMAT research center renovation activities at Khalifa University.
- Undergraduate Instructor/Teaching Assistant (2018-2022)  
Khalifa University, Engineering department
- Instructor: Engineering design course (Spring 2021)
- Teaching Assistant: Solid mechanics (Fall 2018)
- Teaching Assistant (2018 – 2022)
- Johns Hopkins University, Johns Hopkins Center for Talented Youth (CTY). Working on courses outline, planning class activities, and evaluating student's performance.
- Participated in organizing the 1st online-based Mawhibatna program for talented high school students (2020).
- Courses: Engineering design, Microeconomics, Exploring the universe, and Forensic biology
- Research Assistant (2015 – 2017)  
Masdar Institute, Water and Environmental Engineering

- Part of MSc. Graduate program, Water and Environmental Engineering (Masdar Institute, Abu Dhabi)
- Science Teacher (2014 – 2015)
- Ministry of Education, Sharjah, Khorfakkan
- Part time teacher for grade 7 and grade 9 students. Responsibilities involved: teaching, proctoring and correcting exams
- Intern (2013 – 2014)
- Masdar Institute
- Project title: Isolation and Characterization of Microalgae from UAE Deserts. Under supervision of Dr.Hector Hernandez

### Professional Membership & Activities

- MSA Early Career Researchers 2021 – present Membrane Society of Australia, Australia
- International Water Association (IWA), UK – 2023 – present

### Teaching Experience

- The cell & It's Functions, Ecology & Evolution, Microbiology, University of Khorfakkan
- Engineering Design, Khalifa University

### Research Interests

- Development of polymeric Membranes with Potential Application in Water Treatment (e.g., oil removal, organic/inorganic pollutants removal, micro-plastic separation etc.)
- Isolation and Characterization of Hydrocarbon Degrading Bacteria from Seawater Biofouling mitigation
- Microbial Biodiversity
- Marine Ecology and preservation Brine management
- Environmental and sociopolitical aspects of desalination plants
- Microplastic in marine environment

### Research Publications (Books, Journals & Conferences papers)

- Ghazal, A., Shaheen, A., AlBlooshi, S., Almehrzi, M., **Ismail, R. A.**, AlAmoodi, N., Hong, S., & AlMarzooqi, F. (2024). Plasmonic titanium nitride-based membranes for solar-driven domestic wastewater distillation treatment. *Chemical Engineering Journal*, 484, 149594. <https://doi.org/10.1016/j.cej.2024.149594>
- Almanassra, I. W., Abushawish, A., Jaber, L., Awayssa, O., Shanableh, A., Atieh, M. A., & **Ismail, R. A.** (2025). Synthetic shale gas produced water pre-treatment via ultrafiltration membranes enhanced with polydopamine-coated hydroxylated 2D boron nitride nanosheets. *Desalination*, 607, 118812. <https://doi.org/10.1016/j.desal.2025.118812>

- Awayssa, O., **Ismail, R. A.**, Hilal-AlNaqbi, A., & Al Ahmad, M. (2025). Electrical circuit model for sensing water quality analysis. *Water*, 17(15), 2345. <https://doi.org/10.3390/w17152345>
- AlBlooshi, S., Lalwani, S., Zhang, T. J., Alamoodi, N., **Ismail, R. A.**, & AlMarzooqi, F. (2025). Mitigating effects of heavy metal ions in wastewater with enhanced stability in hydrogen generation. *Journal of Electroanalytical Chemistry*, 986, 119094. <https://doi.org/10.1016/j.jelechem.2024.119094>
- **Ismail, R. A.**, Kumar, M., Khanzada, N., Thomas, N., An, A. K., & Arafat, H. A. (2022). Hybrid ultrafiltration and nanofiltration membranes tailored by quaternized polydopamine (QSiPD) lead to enhanced removal of protein, salts, and dye from water. *Desalination*, 539, 115954. <https://doi.org/10.1016/j.desal.2022.115954>
- Kumar, M., Sreedhar, N., Thomas, N., Mavukkandy, M. O., **Ismail, R. A.**, Aminabhavi, T. M., & Arafat, H. A. (2021). Polydopamine-coated graphene oxide nanosheets embedded in sulfonated poly(ether sulfone) hybrid UF membranes with superior antifouling properties for water treatment. *Chemical Engineering Journal*, 421, 129772. <https://doi.org/10.1016/j.cej.2021.129772>
- Ibrahim, Y., **Ismail, R. A.**, Ogungbenro, A. E., Pankratz, T. M., Banat, F., & Arafat, H. A. (2021). The sociopolitical factors impacting the adoption and proliferation of desalination: A critical review. *Desalination*, 498, 114798. <https://doi.org/10.1016/j.desal.2020.114798>
- **Ismail, R. A.**, Kumar, M., Thomas, N., An, A. K., & Arafat, H. A. (2021). Multifunctional hybrid UF membrane from poly(ether sulfone) and quaternized polydopamine anchored reduced graphene oxide nanohybrid for water treatment. *Journal of Membrane Science*, 639, 119779. <https://doi.org/10.1016/j.jmemsci.2021.119779>
- **Ismail, R. A.**, Kumar, M., & Arafat, H. A. (2023). *Unleashing the Power of Polydopamine: Combating HA Fouling in Ultrafiltration Systems*. International Conference on Sustainable Energy-Water-Environment Nexus in Desert Climates (ICSEWEN'23), Doha, Qatar, Oct–Nov 30–2, 2023.
- **Ismail, R. A.**, Kumar, M., & Arafat, H. A. (2023). *Utilizing Polydopamine for Enhanced Antifouling Performance in Ultrafiltration Systems*. The International Conference on Desalination, Environment and Sustainability (IDEAS24), Abu Dhabi, UAE, Jan 22–23, 2024.
- **Ismail, R. A.**, Kumar, M., & Arafat, H. A. (2022). *Zwitterionic Polydopamine as an Antifouling Agent in Ultrafiltration System*. 11th International Membrane Science and Technology Conference (IMSTIC2022), Membrane Society of Australia, Dec 4–8, 2022.
- **Ismail, R. A.**, Kumar, M., Khanzada, N., Thomas, N., An, A. K., & Arafat, H. A. (2021). *Quaternized Polydopamine Mediated Antibacterial and Antifouling Poly(ether sulfone) Hybrid UF Membranes for Enhanced Removal of Protein, Dye, and Salts*. 8th MSA Early Career Researcher Online Membrane Symposium (MSA ECR21), Membrane Society of Australia, Nov 25, 2021.
- **Ismail, R. A.** (2024, November 7). *Characterization and Bioremediation Potential of Novel Biosurfactant-Producing Bacterial Strains from Oil-Contaminated Seawater in the UAE*. DESE Conference, UAE.
- Ibrahim, Y., **Ismail, R. A.**, Ogungbenro, A. E., Pankratz, T. M., Banat, F., & Arafat, H. A. (2019). *The sociopolitical factors impacting the adoption and proliferation of desalination: SWOT Analysis Approach*. IDA World Congress – Crossroads to Sustainability, Dubai, UAE.

- **Ismail, R. A., & Hernandez, H. (2017). *Isolation and Characterization of Hydrocarbon Degrading Bacteria from UAE Seawater*.** Fifth International Conference on Water, Energy and Environment (ICWEE), American University of Sharjah, UAE.

### Peer Review Activities

- Desalination and Water Treatment Journal
- Applied Surface Science Journal
- Chemical Engineering Journal
- Journal of Membrane and Separation Technology
- Journal of Membrane and Separation Technology
- Membranes
- MDPI Journal

### Research, Teaching Grants

- A competitive internal research grant from the **University of Khorfakkan (UKF)** through the **University Research Board (URB)** under project reference **V.C.A.A./T.D. 0002/2023**. The project, titled "**Microplastic Investigation Project**," was awarded a total funding amount of **AED ~80,000 in 2023**. This research focuses on the assessment and characterization of microplastics in marine environments, supporting UKF's strategic goal of advancing research in marine sustainability and environmental protection.

### Awards and Recognitions

- The **Highly Competitive Graduate Research Buhooth Scholarship** awarded by **Khalifa University**, supporting outstanding doctoral research potential.
- The **Best PhD Research Award** presented by the **University of Technology Sydney** during the *8th MSA Early Career Researcher Conference (ECR21)* in Australia.
- The **Best Oral Presentation Award (2nd Place)** at the *Biotechnology Exhibition Awards* organized by the **University of Sharjah**, recognizing excellence in scientific communication.
- The **Outstanding Undergraduate Award for Academic Excellence** from the **University of Sharjah – College of Sciences**, acknowledging exceptional academic performance and leadership as an undergraduate student.

## University & Community Services

### A. Media & Public Engagements

Date	Activity	Role	Description	Beneficiaries
<b>10 Oct 2025</b>	Abu Dhabi TV Interview	Guest Speaker	Featured segment on <i>University of Khorfakkan participation in the IUCN World Conservation Congress 2025</i>	UAE Public, Environmental Stakeholders
<b>Aug 2025</b>	Sharjah TV Documentary	Interviewee	Appeared in a documentary about <i>Marine Biodiversity in Khorfakkan and the Sea of Oman</i>	Public, Students, Environmental Community
<b>Oct 2025</b>	<i>Al Sharqiya Magazine</i> (Vol. 73)	Contributor	Article/interview highlighting <i>Marine Research Initiatives and Community Impact</i>	Public, Students
<b>Sep 2025</b>	<i>Sharjah International Government Communication Forum (IGCF)</i>	Panel Speaker	Invited by <i>Sharjah Fisheries Authority</i> to discuss <i>Marine Sustainability and Environmental Communication</i>	Students, Professionals, Government Entities
<b>2023–2024 (Various)</b>	Environment & Protected Areas Authority (EPAA) Events	Participant / Speaker	Participated in environmental awareness campaigns and served as <i>Guest Speaker on Marine Environmental Protection</i>	Schools, University Students, General Public

### B. Educational & University Outreach Activities

Date	Activity	Role	Description	Beneficiaries
<b>4 Oct 2022</b>	Freshmen Orientation Day	Organizer / Speaker	Welcomed and introduced new students to university life	Newly Admitted Students
<b>24 Nov 2022</b>	Symposium: <i>Marine Biodiversity in the UAE</i>	Speaker	Represented the University of Khorfakkan at a public symposium	UKF Students, Faculty, Local Community
<b>1–2 Feb 2023</b>	UKF Open Day	Representative	Presented the Marine Biology Program and research opportunities	Prospective Students & Parents

<b>8–14 Mar 2023</b>	University of Exeter Academic Visit	Coordinator	Strengthened the UoK–UoE partnership and field research collaboration	Marine Biology Students & Faculty
<b>16 May 2023</b>	Education Interface Exhibition (ADNEC, Abu Dhabi)	Representative	Promoted UKF's Marine Biology Program to national and private high schools	High School Students
<b>2025–Present</b>	National Debate Competition	Faculty Mentor / Judge	Supporting student teams and representing UKF in inter-university debate events	UKF Students, UAE Universities
<b>2025–Present</b>	SUCN Committee (Sharjah–UNESCO Collaboration Network)	Member	Supporting <i>South–South Cooperation &amp; Sustainability Initiatives (2026–2030)</i>	Youth, Community Partners, International Collaborators

#### C. University Committees & Academic Service

Committee	Role	Duration	Description
<b>Central Academic Appointment Committee</b>	<i>Secretary &amp; Member</i>	2024 – Present	Overseeing faculty recruitment, promotion, and appointment processes across colleges
<b>Teaching &amp; Learning Committee</b>	<i>Secretary</i>	2024	Supporting innovative teaching practices, assessment alignment, and blended learning integration
<b>Procurement Committee</b>	Member	Ongoing	Reviewing and approving college and central lab procurement requests