

CURRICULUM VITAE

Name: Dr. Izeddin Abdalla B Elhamrouni

Date of Birth: 27/01/1982

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Academic Qualifications:

- B.Sc in Medical technology- Medical laboratory science Department - University of Tripoli,. 2004
- M.Sc in Environmental Science Biodegradation of oil –The Libyan academy, Libya. 2009
- Ph.D in Environmental Pollution Control Biotechnology / Environmental Science / Microbiology/ Biodegradation of oil/– Universiti Putra Malaysia, UPM Serdang, Malaysia. 2024.

Brief Career History:

I am a researcher at the Libyan Biotechnology Research Centre's Department of Environmental and Food Sciences/Environmental Sciences in Tripoli, Libya. Biotechnology for environmental pollution control is my area of expertise. My research focuses on chemical pollutants that pollute soil and water. These pollutants have complex structures and are hard to break down because they accumulate over time. Therefore, my focus is on safe, hygienic, and economical control methods for these pollutants.

In addition to my work as a researcher, I have participated in teaching, scientific research, and research activities at scientific institutions.

Specialization Area:

Environmental Pollution Control Biotechnology / Microbiology/ Biodegradation and Bioremediation of hydrocarbon.

Current Research Topics/Areas:

Using microorganisms to remove oil from the environment through bioremediation. Optimizing the bacterial growth environment in polluted locations to ensure the bioremediation procedure is successful.

Areas of Interest:

Focus on the application of microbial/biological methods for removing hydrocarbon pollutants. These methods are effective, economical, and environmentally safe, allowing for minimal disturbance to soil and water environments, permanent removal of harmful chemical pollutants, and low operating costs. In addition, I pay particular attention toward modelling and optimization of oil bioremediation processes by response surface methodology (RSM) for that with the possibility of integrating bioremediation methods that utilize bacteria and other local microorganisms to remove oil spills from the environment with other remediation technologies.

Publications

List of 10 Significant **Journal Publications** (latest within 10 years):

- i. **Izeddin Abdalla Elhamrouni, M. Y. Ishak, W. Johari, N. Halimoon.2023.** Anovel characterization of alginate-attapulgitic-calcium carbonate (AAC) gel adsorption in bacterial biodegradation of used engine oil (UEO). *Biotechnology & Biotechnological Equipment*.
- ii. **Izeddin Abdalla Elhamrouniab, Mohd Yusoff Ishak, Safaa A Kadhumc, Wan Lutfi Wan Joharib, Normala Halimoonb, Saja Mahdey Jaberc .2025.** Optimization and modeling of used engine oil (UEO) hydrocarbons (HCs) degradation by newly isolated *Ochrobacterium intermedium* LMG 3301 using response surface methodology (RSM). *Total Environment Advances*.
- iii. **Izeddin Abdalla Elhamrouni, M. Y. Ishak, W. Johari and N. Halimoon.2025.** Effect of Freeze Drying Protective Medium and initial cell concentration on the Viability of single cell (*O. intermedium* LMG 3301) and mixed cell (*O. intermedium* LMG 3301 plus *B. paramycoides* MCCC1A04098) Bacterial Strain Subjected to Freeze-drying Technique. *Journal of Pure and Applied Microbiology*. (**Accepted**)
- iv. **Izeddin Abdalla Elhamrouni, Mohd Yusoff Ishak, Safaa A. Kadhum, Wan Lutfi Wan Johari, Normala Halimoon, Saja Mahdey Jaber, and Eeman Alhammadi. 2025.** Optimization and modeling of used engine oil hydrocarbons degradation by *Ochrobacterium intermedium* LMG 3301 using response surface methodology. *Total Environment Advances*.
- v. **Izeddin Elhamroumi, Eeman Alhammadi, and Mohd Yusoff Ishak. 2025** Study on biodegradation of used engine oil in a stirred batch bioreactor by *ochrobactrum intermedium* and *Bacillus paramycoides* isolates. *Scientific Reports*.
- i. **Izeddin Elhamrouni, Eeman Alhammadi, and Mohd Yusoff Ishak. 2026** .Comparison study of used engine oil (UEO) biodegradation by free cell and immobilized cells of *Ochrobacterium intermedium* LMG 3301 and *Ochrobacterium intermedium* LMG 3301 plus *Bacillus paramycoides* MCCC1A04098 in shake flask. *Bioremediation Journal*. (**Submitted**).

- ii. **Izeddin Abdalla Elhamrouni, Eeman Assadeg Alhammadi Mohd Yusoff Ishak, Wan Lutfi Wan Johari and Normala Halimoon .2026.** Ex-situ bioremediation study of used engine oil (UEO) by freeze-dried *Ochrobacterium intermedium* LMG 3301 and *Ochrobacterium intermedium* LMG 3301 plus *Bacillus paramycoides* MCCC1A04098 in soil microcosm", the International Journal of Environmental Research. (**submitted**).

iii.