# CURRICULUM VITAE

## ❖ *Personal details:*

*Name*: Mustafa Mohammed Khalaf

*Passport No.*: A12762619

*Date of birth*: 16\Nov.\1989

*Place of birth*: Anbar, Iraq

*Marital status*: Married

*Race*: Iraqi

*Nationality*: Iraq

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E-mail address: mustafa.kh1989@gmail.com .

## *Academic qualification:*

| Degree/year | Institution | Thesis title | Remarks |
|---|---|---|---|
| Ph.D/2019 | Environmental Engineering, Institute of Advances studies, UM, Malaysia | Super-hydrophobic carbon-nanomaterial to improve sea water desalination by direct contact membrane distillation | - |
| MEng/ 20013-2015 | Civil Engineering Departments, Faculty of Engineering and Build Environment, UKM, Malaysia | Ultimate behavior of plate girder with diagonal stiffener using finite element method | 3.75 |
| BSc/ 2008-20012 | Highway & Transportation Engineering, Department of Civil Engineering, Al-Mustansyiriah University, Baghdad, Iraq | Finite Element Modeling of Spherical Dome Structures | 64.77 |

## ❖ *Language proficiency*

1. Arabic (mother language)
2. English (professional written and spoken).
3. Bahasa Malay (beginner)

## ***Work and employment:***

## *Academic and research positions:*

1- Post- Doctorate in Chamical engineering department, Sultan Qaboos University, November 2019 to present.
2- Assistant Professor in Department of Civil Engineering, Al-Maaref University College, Iraq September 2019 to present.

## *Teaching Experience*

| Period | Position | Subject |
|---|---|---|
| 1. September /2017- January 2017(5months). | University of Nizwa-Oman | Fluid/ Teaching Assistant |
| 2. September /2018- December 2018(4months). | University of Malaya-Malaysia | Separation processes/ Teaching Assistant |

## *1.4 Industrial works*

| Period | Position | Employer | Job Description |
|---|---|---|---|
| July /2012- August 2013 (14 months) | Site Engineer | AlWALEED FOR GENERAL CONTRATING | Renewing Dry pot project.<br>1. Worked as estimate<br>2. Pavement new road<br>3. Construction |

## *1.5 Research interest*

Water quality, waste managements, nanotechnology, membrane filtration, membrane distillation.

## *1.1 Publications in journals*

1. **Aljumaily M. M**., Alsaadi M A, Abd Hamid S. B., Hashim N. A., Das R., AlOmar M. K**.,** Alayan H. M., Novikova M., Hashim M. A. *Optimization Synthesis of Super-Hydrophobic Carbon Nanomaterials by Chemical Vapor Deposition.* Scientific Reports, Nature. ***ISI index Q1(5. 5 impact factor)***.
2. **Aljumaily M. M**, Alsaadi M A, N. Hashim N. A, Qusay F. Alsalhy, Farouq S. Mjalli, Muataz Ali Atieh and Ahmed Al-Harrasi. *PVDF-co-HFP/superhydrophobic acetylene-based nanocarbon hybrid membrane for seawater desalination via DCMD*, chemical engineering research and design. **ISI index Q1 (2.795 impact factor).**
3. Alayan H. M., Alsaadi M. A., Abo Hamad A., AlOmar M. K**.,** **Aljumaily M. M**. Das R. Hashim M. A., *Hybriding carbon nanotubes with powder activated carbon for efficient Bisphenol A removal from water: The optimum growth and adsorption conditions.* RSC Advances. RSC. DESALIN WATER TREATMANT.***ISI index Q2 (1.7 impact factor)***.
4. Mohamed Khalid AlOmar, Mohammed Abdulhakim Alsaadi**,** **Aljumaily M. M**, Shatirah Akib, Taha M. Jassam, Mohd Ali Hashim. N,N-diethylethanolammonium chloride based DES-functionalized carbon nanotubes for arsenic removal from aqueous solution, DESALIN WATER TREATMANT.***ISI index Q2 (1.7 impact factor)***.
5. **Aljumaily M. M**, Alsaadi M A, N. Hashim N. A, Qusay F. Alsalhy, Farouq S. Mjalli, Muataz Ali Atieh and Ahmed Al-Harrasi. *Embedded super-hydrophobic CNMs prepared by CVD technique with PVDF-co-HFP membrane for application inwater desalination by DCMD*. DESALIN WATER TREATMANT.***ISI index Q2 (1.7 impact factor)***.
6. **Aljumaily M. M**, Alsaadi M A, N. Hashim N. A, Qusay F. Alsalhy, Farouq S. Mjalli, Muataz Ali Atieh and Ahmed Al-Harrasi. *Optimum super-hydrophobic surface nanocarbon-based membrane with improved anti-bacterial characteristics.* International Journal of Environmental Research. ***ISI index Q4 (0.927. impact factor)***.
7. Rusul Khaleel Ibrahim, Ahmed El-Shafie, Lai Sai Hin, Nuruol Syuhadaa Binti Mohd, **Mustafa Mohammed Aljumaily**, Shaliza Ibraim, Mohammed Abdulhakim AlSaadi. *A clean approach for functionalized carbon nanotubes by deep eutectic solvents and their performance in the adsorption of methyl orange from aqueous solution.* Journal of environmental management. ***ISI index Q1 (4.4 impact factor)***.
8. Alfarooq O Basheer, Marlia M Hanafiah, Mohammed Abdulhakim Alsaadi, Y Al-Douri, MA Malek, **Mustafa Mohammed Aljumaily**, Seef Saadi Fiyadh. *Synthesis and Characterization of Natural Extracted Precursor Date Palm Fibre-Based Activated*

*Carbon for Aluminum Removal by RSM Optimization. Processes.* ***ISI index Q3 (1.4 impact factor)***.

## *1.2 Conference*

1. **Mustafa Mohammed Aljumaily** *[Finite Elements Method For Ultimate Behaviour Of Plate Girder With Diagonal Stiffener].* Design for Scientific Renaissance DSR (2015) .
2. **Mustafa Mohammed Aljumaily,** *[Seawater desalination by CNT-modified composite super-hydrophobic in DCMD system].*Meeting on Nanotechnology, Principles and applications (2018).
3. **Mustafa Mohammed Aljumaily,** *[The impact of super-hydrophobic coating carbon nanomaterials based membrane on the performance of membrane distillation].*Meeting on Nanotechnology, Principles and applications (2018).
4. **Mustafa Mohammed Aljumaily,** *[The role played by carbon source in the adsorptive efficiency of carbon nanomaterials synthesized on impregnated powdered activated carbon].*Meeting on Nanotechnology, Principles and applications (2018).
5. International conference (Water forecast in the future of Iraq: Using the past and present (2019)
6. Serving as Rapporteur of Graphene Malaysia 2016.
7. Serving as Rapporteur of Nano Technology Malaysia 2017.
8. Serving as Organizer of Meeting on Nanotechnology, Principles and applications (2018).

## *1.6 Projects and fund*

| Title of project | Fund source/ amount | Rule |
|---|---|---|
| Stability investigation of wide (Water in Diesel Emulsion) | PPP-UM<br>Project No.: RP017-13AET<br>RM 68000 | Research assistant under Dr. Mohammed Abdulhakim Abdulrahman supervision |
| Modification of Existing Nirile Latex with Magnetite Nani Particle-extension | PPP-UM<br>Project No.: PV011-2016<br>RM 143000 | Research assistant under Dr. Mohammed Abdulhakim Abdulrahman supervision |
| Using deep eutectic solvents as functionalization agents of carbon nano materials for water treatment applications | PPP-UM<br>Project No.: rp017-13BET<br>RM 45000 | Research assistant under Dr. Mohammed Abdulhakim Abdulrahman supervision |
| The highest permeation flux of modified porous membrane for sea water desalination process | Sultan Qaboos University<br>CL/SQU-UAE/16/02<br>USD 9000 | Research assistant under Dr. Farouq S. Mjalli supervision |

## *1.7 Lab Expertise*

1. Running and supervising membrane fabrication experiments for undergraduate students in membrane lab, chemical engineering departments.
2. Running and supervising carbon Nano materials by chemical vapor deposition fabrication experiments for undergraduate students in CVD lab, chemical engineering departments.
3. Fourier Transform Infrared spectroscopy (FTIR).
4. Differential Scanning Calorimetry (DSC) and thermogravimetric analysis (TGA).
5. Field-Emission Scanning Electron Microscope (FESEM).
6. Transmission Electron Microscopy (TEM).
7. Measure zeta potential (Zeta)
8. Contact Angel measurement (CA)
9. Atomic Force Microscopes(AFM)

# *2 Qualification:*

## *2.1 Engineering software*

| software | Competence level | Learning way |
|---|---|---|
| Design Expert | Professional | Self-Learning |
| LUSAS | Professional | Self-Learning |
| Essential FTIR | Professional | Self-Learning |
| Origin pro | Professional | Self-Learning |
| AutoCAD | Good user | Self-Learning |
| ABAQUS | Professional | Self-Learning |
| STAD Pro.2007 | Intermediate | Self-Learning |

## *2.2 Computer using Skills*

| Skill | Ability grade |
|---|---|
| Microsoft Office | Professional |
| Computer Hardware | Professional |
| Computer Programming (solve most of computer programming problems) | Professional |

# *3 Professional development and training*

| Year | Institute | Trained course |
|---|---|---|
| 2010 | Al-Mustansirah University | AutoCAD |
| 2014 | UKM | MS project |
| 2015 | UKM | Risk managements- Advance |
| 2015 | UKM | Project managements |

| | | |
|---|---|---|
| | | processes- Advance |
| 2016 | UKM | MS project- Advance |
| 2016 | Writing clinic- UM | Endnote- advance |
| 2016 | Writing clinic- UM | Style writer |
| 2016 | Writing clinic- UM | Turnitin |
| 2016 | IPS- UM | Statistical analysis using SPSs |
| 2017 | IPPP- UM | Conducting a Literature Search and Review Paper/ Scientific Research tools |
| 2018 | UTM | Membrane Technology |

## *4 Professional bodies*

a. Iraqis Engineers Union, Professional.
b. Malaysian Board of Engineers, Applied.
c. Membrane society
d. Iraqi & Malaysian driving licence.

***Note**: all certificates are ready upon request.*