**Rasha Hajarat**

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##### Education

**2005-2010** The University of Manchester (Manchester, United Kingdom).

PhD. Chemical Engineering.The subject of the PhD was the use of Nanofiltration membrane in desalinating brackish water. More deep knowledge about membranes especially nanofiltration membranes were gained, how membranes would be a feasible method to desalinate brackish water especially in the areas that lacks energy sources. During PhD course developed new methods in how to approach any problem that faces the research and solve it. Also how to use Fortran software was developed because it was used to solve numerical equations.

**2003-2004** UMIST (Manchester, United Kingdom).

MSc. Environmental Biotechnology. The knowledge of the main concepts in environmental biotechnology was developed. Became more aware about the environmental issues and how they can be managed in-order to reduce pollution and make Earth a clean place to live in for the coming generations. Also understood how to link industrial production with the environment and make production more sufficient and less harmful towards the environment. A good ability to solve problems was developed from the courses that were taken and from the lab work that was done while writing the dissertation. The dissertation title was “micro-mixing of non-Newtonian fluids”, where a new knowledge about micro-mixing of non-Newtonian and Newtonian fluids was gained.

**1998-2003** Mu’tah University (Al-Karak Jordan).

BSc. Chemical Engineering, the overall assessment of Good. Developed a good knowledge of the main concepts and fields of chemical engineering.

**1997-1998** Philadelphia national schools (Amman, Jordan).

The general secondary education examination, scientific stream. Percentage average 89.3%.

##### Work Experience

**September / 2011 – Present** Lecturer

Lecturer at Mu’tah University (Al-Karak, Jordan). Taught several courses for undergraduate students. The taught subjects were environmental chemistry, environmental pollution, environmental chemo-dynamics, environmental impact assessment, biochemical engineering, food process engineering, unit operation-solid, unit operation-separation, principles of chemical processes, fluid mechanics, chemical industries, petroleum refining engineering, thermodynamics, engineering chemistry, analytical chemistry, organic chemistry, fluid mechanicslaboratory, thermodynamics laboratory, unit operation laboratory, and communication skills.

**September - December 2007** Demonstrating

Demonstrating at the University of Manchester (Manchester, United Kingdom). It was for chemical reaction engineering subject. From it gained an experience how to help undergraduate students how to solve problems related to chemical reaction engineering, and interact with students in-order to make a learning process more enjoyable and sufficient for the students.

**July – August 2002** Hikma Pharmaceuticals Limited

During the training gained an experience in analysing chemical substances that would be used in pharmaceutical industry and introduced to several analysing equipments and processes. Also gained experience in how accurate the analysing should be and how would any error cause problems in the production process.

**2017-2021** Project

Project funded by Scientific Research and Innovation Support Fund, Ministry of Higher Education and Scientific Research. Project title is “The use of ceramic Nanofiltration membrane in desalinating brackish water”.

**Courses / workshops**

1. TOEFL course. 13th July – 6th August, 2003.
2. Time management, November, 2003.
3. Presentation, 2003.
4. Art of the Protocol and etiquette, 2004.
5. Introduction to research, January, 2005.
6. Academic writing, 9-March, 2005.
7. [Demonstrator training, 16-May, 2005.](javascript:void(null))
8. [Effective presentations workshop, 23-May, 2005.](javascript:void(null))
9. [Academic paper publication workshop, 5-May, 2006.](javascript:void(null))
10. [Teaching in higher education, 1-June, 2006.](javascript:void(null))
11. [Graduate teaching assistant, 30-October, 2006.](javascript:void(null))
12. [Developing the postgraduate manager, 19 to 21-June, 2007.](javascript:void(null))
13. Planning the final year, 2007.
14. Managing electronic thesis submission, March, 2010.

**Professional Associations**

Member of IChemE, IWA and IDA.

**Additional Skills**

*Languages*

Speak, read and write excellent Arabic, (mother tongue).

Speak, read and write very good English

*Software/System Skills*

Microsoft office (word, excel, power point and EndNote).

Fortran 77.

MathCad.

**Published Articles**

Modelling transport of salts through ceramic Nanofiltration membranes. Rasha Hajarat, Alec James. The sixth Jordan international chemical engineering conference (JIChEC 06).

Effect of pH on separating ions from brackish water using nanofiltration membrane. Rasha Hajarat, Alec James. The sixth Jordan international chemical engineering conference (JIChEC 06).

Rasha A. Hajarat, BananHudaib and Faisal Al-Awaysah.” SEPARATING MgBr2, KBr, and NaBr using nanofiltration membrane – theoretical”. International Journal of Recent Scientific Research Vol. 11, Issue, 06 (D), pp. 38979-38984, June, 2020

Omar S. Al-Ayed1, and Rasha A. Hajarat. “Shale Oil: Its Present Role in the World Energy Mix”. Global Journal of Energy Technology Research Updates, 2018, 5, 11-18.

Calculating Ceramic NF Membrane Surface Charge. [Proceedings of the International Conference on Advances in Chemical Engineering (AdChE) 2020](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3710440), 10 Pages Posted: 3 Dec 2020.

**References**

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