**AbdelHamid Mohamed Ajbar**

**Personal Data**

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Position Professor

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**Education**

* Ph.D. Notre Dame University, Indiana, USA, 1994, Chemical Engineering
* M.S. Notre Dame University, Indiana, USA, 1991, Chemical Engineering
* B.Sc. Ecole Nationale de L’Industrie Minerale, Rabat, Morocco, 1988.

**Position** Professor, Department of Chemical Engineering, King Saud University

**Industrial Experience**

* Training at Shell Oil Company, West Hollow Research Center, Houston,USA, May-Sept. 1992.

**Institutional & Professional Service**

1. Head of development unit, Vice deanship of development and quality, College of engineering. 2015-present
2. Member of the committee for the development of the Strategic Plan for the College of Engineering at King Saud University, 2011-2016.
3. Coordinator of the Committee for Accreditation and Quality at the Department of Chemical Engineering, 2009-present.
4. Coordinator of the Committee for ABET Accreditation of the department of Chemical Engineering, 2009-2010.
5. Coordinator of the Committee for Preparation of Self-Study Report for Program Accreditation based on NCAAA, 2011-present.
6. Member of the Committee for the feasibility study of the establishment of a distinguished college (College X) at King Saud university, 2009-2010
7. Member of Committee to prepare a Joint Graduate Program on Water Desalination, 2011.

**Books**

* Dynamics of the Chemostat: A Bifurcation Theory Approach, Taylor and Francis, CRC press, 2011.
* An Introduction to Modelling of Chemical Processes, KSU Press, 2010.
* An Introduction to Numerical Methods in Chemical Engineering, KSU Press, 2009.

**Peer-reviewed ISI Publications form 2012-2017**

1. Long-term desalinated water demand and investment requirements: a case study of Riyadh, Journal of Water Reuse and Desalination, 2017, jwrd2017107; DOI: 10.2166/wrd.2017.107
2. Polypropylene/multiwall carbon nanotubes nanocomposites: Nanoindentation, dynamic mechanical, and electrical properties, J. Appl. Polym. Sci., 134, 45293.(2017)
3. Performance analysis of cascaded membrane distillation arrangements for desalination of brackish water, Desalination, 76, 19-29 (2017)
4. [Nanoindentation Creep, Nano-Impact, and Thermal Properties of Multiwall Carbon Nanotubes–Polypropylene Nanocomposites Prepared via Melt Blending](http://www.tandfonline.com/doi/full/10.1080/03602559.2016.1163582) [Polymer-Plastics, Technology and Engineering,](http://www.tandfonline.com/toc/lpte20/55/13)Vol. 55 , Iss. 13,2016
5. Design and fabrication of a portable and hybrid solar-powered membrane distillation system, Journal of Cleaner Production, Volume 133, 2016, Pages 631-647,
6. Effect of frequency on pulsed fluidized beds of ultrafine powders, Journal of Nanomaterials, Vol. 23, 2016. <http://dx.doi.org/10.1155/2016/4592501>
7. Modeling of nitrogen separation from natural gas through nanoporous carbon membranes, Journal of Natural Gas Science and Engineering, 26 (2015) 1278-1284.
8. A fundamental analysis of dynamics of waste biodegradation in aerobic processes, Asia-Pac. J. Chem. Eng., 9: 423–430 (2014)
9. Bed collapse behavior of pulsed fluidized beds of nano-powder, Advanced Powder Technology, 25 (2014) 331–337
10. Model-based energy Analysis of an integrated Midrex-based Iron/Steel plant, Journal of [Chemical Engineering Communications,](http://www.tandfonline.com/toc/gcec20/current) Volume 201, 2014 - [Issue 12](http://www.tandfonline.com/toc/gcec20/201/12) Pages 1686-1704
11. Performance assessment of a wind driven membrane desalination unit in Saudi Arabia, Journal of Engineering Research, Vol. 5 No. (2) June 2017
12. A modified orthogonal collocation method for reaction diffusion problems, Braz. J. Chem. Eng., Vol.31 no.4,  2014
13. Assessing learning outcomes in electrical engineering education: A case study from Saudi Arabia, International Journal of Electrical Engineering Education, Vol 51, Issue 4, 2014
14. On the existence of chaotic behavior in pure and simple microbial competition: The role of Contois kinetics, ANZIAM J., 55(2013), 162–174
15. [Study of chaotic behavior in predator-prey interactions in a chemostat](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=5), Ecological Modeling, Volume: 259   Pages: 10-15   (2013)
16. [Optimization-based periodic forcing of RO desalination process for improved performance](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=1), Desalination and Water Treatment, Volume: 51   Issue: 37-39   Pages: 6961-6969   (2013)
17. [Identification of Top Competencies Required from Engineering Graduates: A Case Study of Saudi Arabia](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=9), International Journal of Engineering Education,  Volume: 29   Issue:   Pages: 967-973    (2013)
18. [A long-term forecast of water demand for a desalinated dependent city: case of Riyadh City in Saudi Arabia](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=4), Desalination and Water Treatment,  Volume: 51   Issue: 31-33   Pages: 5934-5941   (2013)
19. [Formation of biodegradable polymeric fine particles by supercritical antisolvent precipitation process](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=7), Polymer Engineering and Science, Volume: 53   Issue: 3   Pages: 564-570   ( 2013)
20. [Determination of cost-effective operating condition for CO2 capturing using 1-butyl-3-methylimidazolium tetrafluoroborate ionic liquid](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=2), Korean Journal of Chemical Engineering Volume: 30   Issue: 11   Pages: 2068-2077  ( 2013)
21. [Precipitation of Ibuprofen Sodium using compressed carbon dioxide as antisolvent](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=8), European Journal of Pharmaceutical Sciences, Volume: 48   Issue: 1-2   Pages: 30-39   (2013)
22. [Supercritical antisolvent synthesis of fine griseofulvin particles](http://www.sciencedirect.com/science/article/pii/S0921883113000319) Advanced Powder Technology, Volume 24, Issue 6,  Pages 1006-1012 ( 2013)
23. [Enhanced Ethanol Reactor Operation Through Periodic Forcing of the Feed Rate](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=X1qg5Fj7L9g7G6B74Vy&page=1&doc=6) Arabian Journal for Science and Engineering Volume: 38   Issue: 4   Pages: 741-750  ( 2013)
24. Modeling the complex interactions between reformer and reduction furnace in a Midrex-based iron plant, Can. J. Chem. Eng. 90: 1120-1141 (2012).
25. [Periodic control of a reverse osmosis desalination process](http://www.sciencedirect.com/science/article/pii/S0959152411001867), J. Proc. Contr. 22: 218-227 (2012).
26. [A probabilistic forecast of water demand for a tourist and desalination dependent city: Case of Mecca, Saudi Arabia](http://www.sciencedirect.com/science/article/pii/S0011916412001543), Desalination, 294, p.53(2012).
27. [Study of complex dynamics in pure and simple microbial competition](http://www.sciencedirect.com/science/article/pii/S0009250912003727), Chem. Eng. Sci. 80:188-194 (2012).
28. Dynamics of recombinant DNA cultures under time varying feed conditions, Chem. Eng. Commun. 199: 1155-1168 (2012).