

CURRICULUM VITAE

Muftah H. El-Naas

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1. Personal Information

a. Education

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|------|---|
| 1996 | Doctor of Philosophy (<i>Chemical Engineering</i>)
MCGILL UNIVERSITY, Montreal, Canada |
| 1991 | Master of Engineering (<i>Chemical Engineering</i>),
MCGILL UNIVERSITY, Montreal, Canada |
| 1988 | Bachelor of Applied Science (<i>Chemical Engineering</i>)
UNIVERSITY OF BRITISH COLUMBIA, Vancouver, Canada |

b. Professional Experience

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| June 2013 to Present | Professor
Department of Chemical and Petroleum Engineering
UAE UNIVERSITY |
| Aug. 2012 to Aug 2014 | Chair
Department of Chemical and Petroleum Engineering
UAE UNIVERSITY |
| Jan. 2011 to Sep. 2012 | Director
Petroleum Science and Engineering Graduate Program
UAE UNIVERSITY |
| Sep. 2007 to 2013 | Associate Professor
Department of Chemical and Petroleum Engineering
UAE UNIVERSITY |
| Sep. 2008 to 2010 | Director
Internal Funding Unit at Research Affairs
UAE UNIVERSITY |
| Sep. 2005 to 2007
Sep. 1998 to 2004 | Assistant Professor
Department of Chemical and Petroleum Engineering
UAE UNIVERSITY |
| Nov. 1997 to 1998 | Research Associate
BIOPRO Research Center
ECOLE POLYTECHNIQUE, Montreal, Canada |
| Sep. 1991 to 1996 | Research Assistant
Plasma Technology Research Center (CRTP)
Department of Chemical Engineering
MCGILL UNIVERSITY, Montreal, Canada |

2. Research, Scholarly, and Creative Activities

a. Chapters in Books

1. **El-Naas, M. H.**, Reject Brine Management, in *Desalination, Trends and Technologies*, Edited by: Michael Schorr, Publisher: InTech, February 2011; ISBN 978-953-307-311-8.
2. **El-Naas, M. H.** and M. A. Alhaija, Modeling of Adsorption Processes, in *Mathematical Modelling*, Edited by: Christopher R. Brennan, Nova Publishing, June 2011, ISBN: 978-1-61209-651-3

b. Patent Applications

1. **El-Naas, M. H.**, J. Acio and A. Hassan "Spouted Bed Bio-Reactor System" US Patent Application No. 13/975,834
2. **El-Naas, M. H.** and S. Al-Zuhair, Process and System for the Treatment of Industrial and Petroleum Refinery Wastewater; UK Patent Application No. 1202411.3; US No. 13/676,755; Canada, No. 2,796,105

c. Articles in Refereed Journals

1. Hamdan, S. S., **M. H. El-Naas**, An electrocoagulation column (ECC) for groundwater purification, *Journal of Water Process Engineering* 4 (2014) 25–30
2. **El-Naas, M. H.**, J.A. Acio, A. E. El Telib, Aerobic Biodegradation of BTEX: Progresses and Prospects, *Journal of Environmental Chemical Engineering* 2 (2014) 1104–112.
3. Surkatti, R. and **M. H. El-Naas**, Biological treatment of wastewater contaminated with *p-cresol* using *Pseudomonas putida* immobilized in polyvinyl alcohol (PVA) gel, *Journal of Water Process Engineering* 1 (2014) 84–90.
4. **El-Naas, M. H.**, S. Al-Zuhair, and M. Abu Alhaija, Evaluation of a three-step process for the treatment of petroleum refinery wastewater, *Journal of Environmental Chemical Engineering* 2 (2014) 56–62.
5. Hamdan S., **M. H. El-Naas**, Characterization of the removal of Chromium (VI) from groundwater by electrocoagulation, *Journal of Industrial and Engineering Chemistry*, 20 (2014) 2775–2781
6. Al-Khalid, T. and **M. H. El-Naas**, Biodegradation of Phenol and 2, 4 Dichlorophenol: The Role of Glucose in Biomass Acclimatization, *International Journal of Engineering Research & Technology*, 1 No. 3 (2014) 1579-1586.
7. Al-Nakoua, M. and **M. H. El-Naas**, CO₂ Reforming of Methane in a Probe Reactor with a Thin Catalyst Layer, *International Journal of Engineering Research & Technology*, 3 No. 2 (2014) 1885-1888.
8. Soliman, A. M., **M. H. El-Naas**, O. Chaalal, Adsorption of Crystal Violet on Sludge produced from Refinery Wastewater Treatment: Characterization of Sludge Equilibrium and Kinetic Studies, *International Journal of Chemical and Environmental Engineering*, 4, No. 6 (2013) 390-398.
9. Al-Khalid, T. and **M. H. El-Naas**, Transient Behavior in Biodegradation of 2, 4 Dichlorophenol: Is It a Starvation Effect? *International Journal of Chemical Engineering and Applications*, 4, No. 6 (2013) 365-368.
10. **El-Naas M. H.**, A-H. I. Mourad, and R. Surkatti, Evaluation of the Characteristics of Polyvinyl alcohol (PVA) as Matrices for the Immobilization of *Pseudomonas Putida*, *International Biodeterioration & Biodegradation* 85 (2013) 413-420.

11. **El-Naas, M. H.**, S. Al-Zuhair, A. Al-Lobaney, Treatment of Petroleum Refinery Wastewater by Continuous Electrocoagulation, *International Journal of Engineering Research & Technology*, 2, No. 10 (2013) 2144-2150
12. Al-Zuhair, S., K. Ahmed, A. Abdulrazak, **M. H. El-Naas**, Synergistic Effect of Pretreatment and Hydrolysis Enzymes on the Production of Fermentable Sugars from Date Palm Lignocellulosic Waste, *Journal of Industrial and Engineering Chemistry*, 19 (2012) 413-415
13. Al-Khalid, T. and **M. H. El-Naas**, Aerobic Biodegradation of Phenols: A Comprehensive Review, *Critical Reviews in Environmental Science and Technology*, 42 (2012) 1632-1690.
14. Al-Zuhair, S. and **M. H. El-Naas**, Phenol Biodegradation by *Ralstonia Pickettii* Extracted from Petroleum Refinery Oil Sludge. *Chemical Engineering Communications*, 199 (2012) 1194-1204.
15. Al-Marzouqi, M. and **M. H. El-Naas**, The Role of Environmental Design Competitions in Engineering Education, *International Journal of Engineering Education*, 28, No. 4 (2012) 959-965.
16. Abu-Jdayil, B., M. A. Al-Nakoua, **M. H. El-Naas**, and A. Khaleel, Rheological Characteristics of Nickel–Alumina Sol–Gel Catalyst, *Fuel Processing Technology*, 102 (2012) 85-89.
17. Al-Nakoua, M. A. and **M. H. El-Naas**, Combined Steam and Dry Reforming of Methane in Narrow Channel Reactors, *International Journal of Hydrogen Energy*, 37 (2012) 7538-7544.
18. **El-Naas, M. H.**, Teaching Water Desalination through Active Learning, *Education for Chemical Engineers*, Volume 6, Issue 4, December 2011, Pages e97-e102.
19. Al-Zuhair S. and **M. H. El-Naas**, Immobilization of *Pseudomonas Putida* in PVA Gel Particles for the Biodegradation of Phenol at High Concentrations, *Biochemical Engineering Journal*, 56, 1-2 (2011) 46-50.
20. Al-Nakoua, M. A., **M. H. El-Naas**, and B. Abu Jdayil, Characterization and Testing of Sol-Gel Catalysts Prepared as Thin Layers in a Plate Reactor, *Fuel Processing Technology*, 92, 10 (2011) 1836-1841.
21. Faiz, F., **M. H. El-Naas**, and M. H. Al-Marzouqi, Significance of Gas Velocity Change during the Transport of CO₂ through Hollow Fiber Membrane Contactors, *Chemical Engineering Journal*, 168 (2011) 593–603.
22. **El-Naas, M. H.**, Electrocoagulation for the Treatment of Petroleum Refinery Wastewater, *Hydrocarbon World*, 5 (2010) 1.
23. **El-Naas, M. H.**, S. Al-Zuhair, and M. Abu Alhaija, Removal of Phenol from Petroleum Refinery Wastewater through Adsorption on Date-Pit Activated Carbon, *Chemical Engineering Journal*, 162 (2010) 997–1005.
24. **El-Naas, M. H.**, A. I. Mourad, S. Al-Zuhair, and R. Surkatti, Characterization of Polyvinyl alcohol (PVA) Gel as Support for Microbial Immobilization, *Journal of Biotechnology*, 150, Supplement 1 (2010).
25. **El-Naas, M. H.**, S. Al-Zuhair, and S. Makhoulf, Continuous Biodegradation of Phenol in a Spouted Bed Bioreactor (SBBR), *Chemical Engineering Journal*, 160 (2010) 565–570.
26. **El-Naas, M. H.**, M. Al-Marzouqi, S. A. Marzouk, and N. Abdullatif, Evaluation of the Removal of CO₂ using Membrane Contactors: Membrane Wettability, *Journal of Membrane Science*, 350 (2010) 410–416.
27. **El-Naas, M. H.**, S. Al-Zuhair, and S. Makhoulf, Batch Degradation of Phenol in a Spouted Bed Bioreactor System, *Journal of Industrial and Engineering Chemistry*, 16 (2010) 267-272.

28. Marzouk S. A., M. H. Al-Marzouqi, **M. H. El-Naas**, N. Abdullatif and Z. M. Ismail, Removal of Carbon Dioxide from Pressurized CO₂–CH₄ Gas Mixture using Hollow Fiber Membrane Contactors, *Journal of Membrane Science*, 351 (2010) 21-27.
29. **El-Naas, M. H.**, A. H. Al-Marzouqi, and O. Chaalal, A Combined Approach for the Management of Desalination Reject Brine and Capture of CO₂, *Desalination*, 251 (2010) 70-74.
30. **El-Naas, M. H.**, S. Al-Zuhair, and M. Abu Alhaija, Reduction of COD in Refinery Wastewater through Adsorption on Date-Pit Activated Carbon, *Journal of Hazardous Materials*, 173 (2010) 750-757.
31. **El-Naas, M. H.**, S. Al-Zuhair, A. Al-Lobaney, and S. Makhoulf, Assessment of Electrocoagulation for the Treatment of Petroleum Refinery Wastewater, *Journal of Environmental Management*, 91 (2009) 180-185.
32. Ghasem, N., M. H. Al-Marzouqi, and **M. H. El-Naas**, Effect of Temperature, Composition, and Shear Rate on Polyvinylidene Fluoride/Dimethylacetamide Solution Viscosity, *Journal of Chemical and Engineering Data*, 54 (2009) 3276-3280
33. **El-Naas, M. H.**, S. Al-Muhtaseb, and S. Makhoulf, Biodegradation of Phenol by *Pseudomonas Putida* Immobilized on Polyvinyl Alcohol (PVA) Gel, *Journal of Hazardous Materials*, 164 (2009) 720-725.
34. Al-Marzouqi, M., S. Marzouk, **M. H. El-Naas**, and N. Abdullatif, CO₂ Removal from CO₂–CH₄ Gas Mixture Using Different Solvents and Hollow Fiber Membranes, *Industrial and Engineering Chemistry Research*, 48 (2009) 3600-3605.
35. **El-Naas, M. H.** and S. Makhoulf, A Spouted Bed Bioreactor for the Biodegradation of Phenols in Refinery Wastewater, *Journal of Biotechnology*, Vol. 13, Supplement 1 (2008).
36. Al-Zuhair, S., **M. H El-Naas**, and H. Al-Hassani, Sulfate Inhibition Effect on Sulfate Reducing Bacteria, *Journal of Biochemical Technology*, 1(2) (2008) 39-44.
37. Al-Marzouqi, M., **M. H. El-Naas**, S. Marzouk, and N. Abdullatif, Modeling of Chemical Absorption of CO₂ in Membrane Contactors, *Separation and Purification Technology*, 62 (2008) 499-506.
38. Al-Muhtaseb, S. A., **M. H. El-Naas**, and S. Abdullah, Removal of Aluminum from Aqueous Solutions by Adsorption on Date-Pit and BDH Activated Carbons, *Journal of Hazardous Materials*, 158 (2008) 300-307.
39. Al-Marzouqi, M. H., **M. H. El-Naas**, S. A. M. Marzouk, M. A. Al-Zarooni, N. Abdullatif, and R. Faiz, Modeling of CO₂ Absorption in Membrane Contactors, *Separation and Purification Technology*, **59 (2008) 286-293**.
40. **El-Naas, M. H.**, F. Abu Al-Rub, I. Ashour, and M. Al Marzouqi, Effect of Competitive Interference on the Biosorption of Lead (II) by *C. Vulgaris*, *Chemical Engineering and Processing*, 46 (2007) 1391-1399.
41. **El-Naas, M. H.**, R. J. Munz, J. Rossi and A. Zekri, Plasma Heating of Carbonate Formations, *Petroleum Science and Technology*, 25 (2007) 1143-1161.
42. Abu Al-Rub, F., **M. H. El-Naas**, I. Ashour, and M. Al Marzouqi, Biosorption of Copper on *Chlorella vulgaris* from Single, Binary and Ternary Metal Aqueous Solutions, *Process Biochemistry*, 41 (2) (2006) 457-464.
43. Al Marzouqi, M. H., M. A. Abdulkarim, S. A. Marzouk, **M. H. El-Naas**, and H. Hassanain, Facilitated Transport of CO₂ through Immobilized Liquid Membrane, *Industrial & Engineering Chemistry Research*, 44 (2005) 9273-9278.
44. Abu Al-Rub, F., **M. H El-Naas**, F. Ben Yehia, and I. Ashour, Biosorption of Nickel on Blank Alginate Beads, Free and Immobilized Algal Cells, *Process Biochemistry*, 39 No.11 (2004) 1767-1773.

45. **El-Naas, M. H.** and A. Zekri, A Novel Plasma Technique to Stimulate Tight Carbonate Rocks, *Energy Sources*, 24 No.3 (2002) 181-194.
46. **El-Naas, M. H.**, S. Rognon, R. Legros, and R.C.Mayer, Hydrodynamics and Mass Transfer in a Spouted Bed Dryer, *Drying Technology*, 18 No. 1 (2000) 323-340.
47. Hastaoglu, M. A., N. Hilal,, M. Abdulkarim, and **M. H. El-Naas**, Transient multi Gas-Solid Reactions in a Bubbling Fluidized Bed, *Canadian Journal of Chemical Engineering*, 78 (2000) 433-441.
48. **El-Naas, M. H.**, R. J. Munz, and F. Ajersch, Solid Phase Synthesis of Calcium Carbide in a Plasma Reactor, *Plasma Chemistry and Plasma Processing*, 18 No.3 (1998) 409- 427.
49. **El-Naas, M. H.**, R. J. Munz, and F. Ajersch, Modelling of a Plasma Reactor for the Synthesis of Calcium Carbide, *Canadian Metallurgical Quarterly*, 37 No.1 (1998) 67-74.
50. **El-Naas, M. H.**, R. J. Munz, and D. Berk, Pyrolysis of CANMET Co-Processing Residue in Argon/Hydrogen Plasma, *Canadian Journal of Chemical Engineering*, 71 (1993) 866-872.

d. Other Professional Papers and Talks, Abstracts, Presented at Conferences

i. Refereed conference proceedings

1. **El-Naas, M. H.**, A-M Mohamed, M. El Gamal, Sequestration of Carbon Dioxide using EAF Steel Slag in a Fluidized Bed Reactor, *The World Congress of Chemical Engineering, WCCE 9*, August 2013, Seoul, Korea.
2. **El-Naas, M. H.** and R. Surkatti, A-H Mourad, Evaluation of the Mechanical Properties of Poly Vinyl Alcohol (PVA) Gel for Biomass Immobilization, *The World Congress of Chemical Engineering, WCCE 9*, August 2013, Seoul, Korea.
3. **El-Naas, M. H.** and S. Hamdan, Assessment of Electrocoagulation for the Removal of Cr (VI) from Groundwater, *The 2nd International Conference on Chemical Engineering and Applications (CCEA 2011)*, Male, Maldives, November 2011.
4. **El-Naas, M. H.**, S. Al-Zuhair, and M. Alhaija, Adsorption of Organic Contaminants on Date-Pit Activated Carbon, *The 13th Asia Pacific Confederation of Chemical Engineering Congress*, Taipei, Taiwan 2010.
5. Al Nakoua, M. A. and **M. H. El-Naas**, Probe and Channel Reactors with a Thin Catalyst Layer, *The 13th Asia Pacific Confederation of Chemical Engineering Congress*, Taipei, Taiwan 2010.
6. **El-Naas, M. H.**, An Active Learning Approach to Teaching Water Desalination". *International Conference on Education, Research and Innovation*, Madrid, Spain 2009.
7. Ghasem, G., M. Al-Marzouqi, and **M. H. El-Naas**, Teaching Chemical Engineering Processes Simulation, *International Conference on Education, Research and Innovation*, Madrid, Spain 2009.
8. Al Nakoua, M. A. and **M. H. El-Naas**, Methane Reforming Reactions in Small Channels, *International Conference on Chemical, Biological & Environmental Engineering (CBEE 2009)*, Singapore 2009.
9. **El-Naas, M. H.**, S. Al-Zuhair, S. Abdulla, and S. Makhlouf, Phenol Bioremoval Using Spouted Bed Bioreactor, *The 8th World Congress of Chemical Engineering*, Montreal 2009.
10. Nakoua, M. A. and **El-Naas, M. H.**, GTL Feed by Catalytic Oxidation of Methane in Plate Reactor, *The 1st Annual Gas Processing Symposium*, ELSEVIER, Qatar, January 10-12, 2009.

11. **El-Naas, M. H.** and S. Makhoulf, A Spouted Bed Bioreactor for the Biodegradation of Phenols in Refinery Wastewater, *The 13th International Biotechnology Symposium*, Dalian, China, October, 2008.
12. **El-Naas, M. H.**, O. Chaalal, and A. H. Al-Marzouqi, CO₂ Capture through Reactions with Desalination Reject Brine, *Proceedings of Clean Air 2007*, Portugal, July 2-7, 2007.
13. **El-Naas, M. H.**, M. Al-Marzouqi, S. A. M. Marzouk, M. Al-Zarooni, and N. Abdullatif, Characterization of the Transport of CO₂ through Membrane Contactors, *Proceedings of Clean Air 2007*, Portugal, July 2-7, 2007.
14. O. Chaalal, **M. H. El-Naas**, and A. H. Al-Marzouqi, A Novel Technique for Natural Gas Sweetening and Water Desalting, *Proceedings of Clean Air 2007*, Portugal, July 2-7, 2007.
15. Al Marzouqi, M. H., M. A. Abdulkarim, S. A. Marzouk, **M. H. El-Naas**, and N. Dabaibeh, CO₂ Removal from a Gas Stream Using Facilitated Transport Membranes, *The 7th World Congress of Chemical Engineering*, Glasgow (UK), July 10-14, 2005.
16. **El-Naas, M. H.**, A Thermodynamic Investigation of a Plasma Process for the Removal of H₂S, *Proceedings of the 6th International Conference on Technologies and Combustion for a Clean Environment*, Paper 44.2, July 2001.
17. **El-Naas, M. H.** and A. Zekri, Application of Plasma Technology to Fracture Tight Formations, *SPE Annual Technical Conference and Exhibition*, Paper 71460, New Orleans 2001.
18. Hastaoglu, M. A., **M. H. El-Naas**, and Y. G. Bolkan, Optimization of Pumping Costs for a Multi-Regional Water Distribution System, *The 2nd International Conference on Sustainability in Desert Regions*, UAE, Al-Ain, November 1999.
19. **El-Naas, M. H.**, F. Ajersch and R. J. Munz, Effect of Carbon Reactivity on Plasma Synthesis of Calcium Carbide, *The 35th Annual Conference of Metallurgists*, Montreal, Quebec, Canada, 1996.
20. **El-Naas, M. H.**, R. J. Munz and F. Ajersch, Production of Calcium Carbide in a Plasma-Jet Fluid Bed Reactor, *The 12th International Symposium on Plasma Chemistry*, Minneapolis, Minnesota, USA, Vol. (2) PP. 613-618, August 1995.

ii. Conference Presentations

21. **El-Naas, M. H.**, S. Hamdan (2014) "Removal of hexavalent chromium from groundwater by continuous electrocoagulation" The 5th International Conference on Chemical Engineering and Applications, August 2014, Taipei, Taiwan.
22. **El-Naas, M. H.**, A. E. El Telib (2014) "A new approach to the biodegradation of BTEX" The 16th International Biotechnology Symposium and Exhibition - IBS 2014, September 2014, Fortaleza, Brazil.
23. Al-Khalid, T. T., **M. H. El-Naas**, Evaluating the Performance of Spouted Bed Bio-Reactor during Aerobic Biodegradation of 2, 4 Dichlorophenol, *Wastewater and Biosolids Treatment and Reuse: Bridging Modeling and Experimental Studies*, WBTR, June 2014, Otranto, Italy.
24. Hasan, S., **M. H. El-Naas**, Treatment of carbide slurry using electrocoagulation, *Wastewater and Biosolids Treatment and Reuse: Bridging Modeling and Experimental Studies*, WBTR, June 2014, Otranto, Italy.
25. **El-Naas, M. H.** S. Hameedi, M. El Gamal, A-M. Mohamed (2014) "Carbon Sequestration through Steel-Making By-products" *ADNOC International Research and Development Conference, ADRAC*, 24-27th February 2014, Abu Dhabi, UAE.

26. **El-Naas, M. H., J. A. Acio, A. Hassan** (2014) "Biodegradation of BTEX: A Novel Approach" *ADNOC International Research and Development Conference, ADRAC*, 24-27th February 2014, Abu Dhabi, UAE.
27. Hamdan, S. S., **M. H. El-Naas** (2014) "Electro-coagulation for Water Purification: Potentials and Challenges" *ADNOC International Research and Development Conference, ADRAC*, 24-27th February 2014, Abu Dhabi, UAE
28. Al-Khalid, T. T., **M. H. El-Naas** (2014) "Biotechnology in Oil Industry: Potential and Applications" *ADNOC International Research and Development Conference, ADRAC*, 24-27th February 2014, Abu Dhabi, UAE.
29. Surkatti, R., **M. H. El-Naas**, "Experimental evaluation and modeling of the biodegradation of cresols in wastewater", *ADNOC International Research and Development Conference, ADRAC*, 24-27th February 2014, Abu Dhabi, UAE.
30. Al-Khalid, T. T., **M. H. El-Naas**, Transient Behavior in Biodegradation of 2, 4 dichlorophenol: Is it a Starvation Effect?, *The 4th International Conference on Chemical Engineering and Applications*, Paris, France 2013
31. Hamdan, S. S., **M. H. El-Naas**, Evaluation of an Electrocoagulation Column for the Removal of Cr(VI) from Brackish Groundwater, *The 63rd Canadian Chemical Engineering Conference*, New Brunswick, Canada 2013
32. Al-Khalid, T. and **M. H. El-Naas**, Aerobic Biodegradation of Chlorophenols in a Spouted Bed Bio-Reactor (SBBR), *The 62nd Canadian Chemical Engineering Conference*, Vancouver, Canada, October 2012
33. **El-Naas, M. H.** and R. Surkatti, Evaluation of the Biodegradation of *P*-cresol in a Spouted Bed Bio-Reactor (SBBR), *The 15th International Biotechnology Symposium*, Daegu, Korea, September 2012.
34. Surkatti, R. and **M. H. El-Naas**, Biodegradation of *O*-cresol by *Pseudomonas Putida* Immobilized in Polyvinyl alcohol (PVA), *The 1st International Conference on Desalination and Environment*, Abu Dhabi, UAE, November 2011.
35. Hamdan S. and **M. H. El-Naas**, Removal of Cr(VI) from Brackish Groundwater Using Electrocoagulation, *The 1st International Conference on Desalination and Environment*, Abu Dhabi, UAE, November 2011.
36. **El-Naas, M. H.**, S. Al-Zuhair, Amal Lobani, and S. Makhoulf, Treatment of Refinery Wastewater by Electrocoagulation, *UAEU Research Conference*, Al-Ain, 2009.
37. **El-Naas, M. H.**, S. Al-Zuhair, and Manal Alhaija, Refinery Wastewater Treatment using BDH and Date-Pit Activated Carbons, *UAEU Research Conference*, Al-Ain, 2009.
38. **El-Naas, M. H.**, A. H. Al-Marzouqi and O. Chahal, CO₂ Capture and Storage through Reactions with Seawater, *UAEU Specialty Symposium on Carbon Management*, Al-Ain, 2009.
39. Nakoua, M. A. and **M. H. El-Naas**, Characterization of Thin Film Ni/Al₂O₃ Catalysts for Use in Plate Reactors, *The 10th UAEU Annual Research Conference*, Al-Ain, April 2009
40. Al-Marzouqi, **M. H. El-Naas**, and Rami Faiz, Modeling of CO₂ Transport through Hollow Fiber Membrane Contactors, *UAEU Specialty Symposium on Carbon Management*, Al-Ain, 2009.
41. **El-Naas, M. H.**, S. Al-Zuhair, and S. Makhoulf, Experimental Evaluation of a Spouted Bed Bioreactor for the Removal of Phenol from Refinery Wastewater, *UAEU Research Conference*, Al-Ain, 2008.

42. Al-Zuhair, S., **M. H. El-Naas**, and H. Hassani, A Kinetic Study on Anaerobic Removal of Sulphate using Sulphate Reducing Bacteria, *UAEU Research Conference*, Al-Ain, 2008.
43. **El-Naas, M. H.**, O. Chaalal, and A. H. Al-Marzouqi, Management of Desalination Reject Brine through Reactions with CO₂, *UAEU Research Conference*, Al-Ain, 2007.
44. **El-Naas, M. H.**, S. Al-Muhtaseb, M. A. Al-Zarooni, S. Abdulla, and S. Makhoulf, Assessment of a Biological Process for the Treatment of Refinery Wastewater, *UAEU Research Conference*, Al-Ain, 2007.
45. **El-Naas, M. H.**, A. Dowiadar, A. H. Al-Marzouqi, and O. Chaalal, Evaluation of the Solubility of NaHCO₃ in High Salinity Solutions, *UAEU Annual Conference*, Al-Ain, 2007.
46. Al-Marzouqi, M., S. Marzouk, **M. H. El-Naas**, M. Abdulkarim, and N. Abdullatif, A Comprehensive Model for CO₂ Absorption in Membrane Contactors, *UAEU Research Conference*, Al-Ain, 2007.
47. Marzouk, S., M. Al-Marzouqi, **M. H. El-Naas**, M. Abdulkarim, and N. Abdullatif, CO₂ Removal from Gas Streams Using Different Hollow Fiber Membrane Contactors and Liquid Adsorbents, *UAEU Research Conference*, Al-Ain, 2007.
48. **El-Naas, M. H.**, A. Y. Zekri, R. J. Munz, and J. Rossi, Plasma Heating: New Approach to Fracturing Tight Carbonate Formations, *UAEU Research Conference*, Al-Ain, 2006.
49. Al-Marzouqi, M., S. Marzouk, M. Abdulkarim, **M. H. El-Naas**, N. Abdullatif, and S. Ahmed, Selective Removal of CO₂ from Natural Gas Stream Using Membrane Contactors, *UAEU Research Conference*, Al-Ain, 2006.
50. Sabouni, R., A. Al-Tayyarri, H. Obaid, L. Murad, S. Al-Molla, **M. H. El-Naas**, and Mohamed Abdulkarim, Design and Simulation of a Humidification-Dehumidification Process for Seawater Desalination, *UAEU Research Conference*, Al-Ain, 2006.
51. **El-Naas, M. H.**, R. J. Munz, and A. Zekri, Plasma Heating of Tight Carbonate Formations: An Innovative Technique, *AIChE Annual Conference (Paper 370a)*, Austin Texas, USA, November 2004.
52. Al-Qaydi, A., A. Al-Harbi, S. Basloom, N. Al-Darmaki, and **M. H. El-Naas**, Bio-sorption of Chromium from Simulated Wastewater, *UAEU Research Conference*, Al-Ain, 2004.
53. Al-Harbi, A., S. Basloom, N. Al-Darmaki, A. Al-Kethairi, and **M. H. El-Naas**, A Process for the Removal of Chromium from Groundwater, *UAEU Research Conference*, Al-Ain, 2004.
54. Al-Marzouqi, M., **M. H. El-Naas**, M. A. Abdulkarim, S. A. Marzouk, and N. Dabaibeh, Selective Removal of H₂S and CO₂ from a Gas Stream Using Facilitated Transport Membranes, *UAEU Research Conference*, Al-Ain, 2004.
55. **El-Naas, M. H.**, I. Ashour, F. Abu Al-Rub, and M. Al Marzouqi, Competitive Bio-sorption of Copper, Lead & Zinc from Simulated Wastewater, *UAEU Research Conference*, Al-Ain, 2003.
56. Al-Marzouqi, M., **M. H. El-Naas**, M. A. Abdulkarim, S. A. Marzouk, and N. Dabaibeh, Selective Removal of H₂S and CO₂ from a Gas Stream Using Facilitated Transport Membranes, *UAEU Research Conference*, Al-Ain, 2003.
57. Hasan, S. W., **M. H. El-Naas**, S. Makkawi, A. Harhara, and O. Chaalal, Application of Indigenous Bio-Sorbents for the Removal of Strontium from Wastewater, *UAEU Research Conference*, Al-Ain, 2003.

58. Al-Marzouqi, A., **M. H. El-Naas**, H. Hassan, and I. Shehatta, Enhancement of Solubility, Stability, Dissolution Rate, and Bioavailability of Poorly Water-soluble Antifungal and Antiviral Drugs by Complexation with Cyclodextrins, *UAEU Research Conference*, Al-Ain, 2003.
59. Abu Al-Rub, F. A., I. Ashour, **M. H. El-Naas**, and F. Benyahia, Adsorption of Nickel on Immobilized Algal Biomass, *The 4th Annual UAE University Research Conference*, 2003.
60. **El-Naas, M. H.** and A. Zekri, Plasma Stimulation of Carbonate Rocks, *UAEU Research Conference*, Al-Ain, 2002.
61. Hastaoglu, M. A., **M. H. El-Naas**, S. A. S. Makkawi, S. W. S. Hasan, A. M. Al-Jassmi, and A. S. Al-Ammari, Storage of Reaction History in a Single Sample in a Fluidized Bed Reactor, (Paper 197f), *AIChE Annual Meeting*, Reno Nevada, USA, November 2001.
62. **El-Naas, M. H.**, M. A. Hastaoglu, and M. Abdulkarim, Modelling and Experimental Investigation of Gas-Solid Reactions in Fixed Bed Reactors, *UAEU Research Conference*, Al-Ain, 2001.
63. Hastaoglu, M. A., **M. H. El-Naas** and A. Othman, Sulfur Removal in Fluidized Bed Reactors, *UAEU Research Conference*, Al-Ain, 2001.
64. **El-Naas, M. H.**, I. Ashour, M. Al-Marzouqi, A. M. O. Mohamed, Uptake of Heavy Metals by Chemical and Bio-resins, *Geotechnical, Geoenvironmental Engineering and Management in Arid Lands*, Al-Ain, UAE, November 2000.
65. Hilal N., M. A. Hastaoglu, M. Abdulkarim, and **M. H. El-Naas**, Simulation of a Reacting Particle in a Fluidized Bed, *Research 2000*, Bath, England, January 2000.
66. **El-Naas, M. H.**, R. J. Munz, and F. Ajersch, Effect of Calcium Oxide Structure on the Solid Phase Synthesis of Calcium Carbide, *The 49th Canadian Chemical Engineering Conference*, Saskatoon, Canada, 1999.
67. **El-Naas, M. H.**, R. J. Munz, and F. Ajersch, Plasma Synthesis of Calcium Carbide, *The 46th Canadian Chemical Engineering Conference*, Kingston, Ontario, Canada, 1996.
68. **El-Naas, M. H.**, R. J. Munz, and D. Berk, Plasma Pyrolysis of CANMET Residue, *The 42nd Canadian Chemical Engineering Conference*, Toronto, Ontario, Canada, October 1992.

iii. Invited talks

69. **El-Naas, M. H.**, Innovation in industrial wastewater treatment: A Case Study, *Water Management in Oil and Gas industry*, Abu Dhabi, UAE, June 9-10, 2014.
70. **El-Naas, M. H.**, Reduction of CO₂ emissions through reactions with desalination brine, *The 4th TRC-Idemitsu Workshop*, Abu Dhabi, UAE, January 23, 2014.
71. **El-Naas, M. H.**, M. A. Alhaija, and S. Al-Zuhair, Innovative Approaches to the Treatment of Refinery Wastewater, *The 20th Joint JCCP-GCC Environment Symposium*, Abu Dhabi, UAE, November 2011.
72. **El-Naas, M. H.**, Electrocoagulation for Water Treatment: Technical Aspects and Potential of Industrial Investment, *The International Conference on Perspectives of Industrial Investment in the GCC*, RAK, November 2010
73. **El-Naas, M. H.**, Carbon Dioxide Capture, *The RAK Symposium on Environment Friendly Industries and Sustainable Economic Development*, June 5, 2010
74. **El-Naas, M. H.**, Exploring Innovative Approaches to the Management of Refinery Wastewater, *Middle East Waste and Water Congress*, Dubai, May 2008.

75. **El-Naas, M. H.,** S. Al-Muhtaseb, and S. Makhoulf, Biodegradation of Organic Contaminants in Refinery Wastewater, *The 4th Joint KFUPM-JCCP Environment Symposium*, Dhahran Saudi Arabia, January 2008.
76. **El-Naas, M. H.** and A. H. Al-Marzouqi, Managing Desalination Reject Brine through Reactions with CO₂, *Middle East Waste and Water Congress*, Dubai, May 2007.

e. Monographs, Reports, and Extension Publications

1. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-alhaija *et al.*, *Design and Evaluation of a Pilot Plant for the Treatment of Ruwais Refinery Wastewater*, Final Progress Report, November, 2013
2. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-alhaija *et al.*, *Design and Evaluation of a Pilot Plant for the Treatment of Ruwais Refinery Wastewater*, Third Annual Progress Report, April, 2013
3. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-alhaija *et al.*, *Design and Evaluation of a Pilot Plant for the Treatment of Ruwais Refinery Wastewater*, Third Semi-annual Progress Report, October, 2012
4. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-alhaija *et al.*, *Design and Evaluation of a Pilot Plant for the Treatment of Ruwais Refinery Wastewater*, Second Annual Progress Report, April, 2012.
5. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-alhaija *et al.*, *Design and Evaluation of a Pilot Plant for the Treatment of Ruwais Refinery Wastewater*, Second Semi-Annual Progress Report, October, 2011.
6. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-Alhaija *et al.*, *Design and Evaluation of a Pilot Plant for the Treatment of Ruwais Refinery Wastewater*, First Annual Progress Report, February, 2011.
7. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-alhaija *et al.*, *Design and Evaluation of a Pilot Plant for the Treatment of Ruwais Refinery Wastewater*, First Semi-Annual Progress Report, October, 2010.
8. **El-Naas, M. H.,** S. Al-Zuhair, M. Abu-Alhaija *et al.*, *Development, Design and Evaluation of Advanced Refinery Wastewater Treatment Processes*, Fifth Annual Progress Report, March, 2010.
9. **El-Naas, M. H.,** S. Al-Zuhair, M. Alhaija *et al.*, *Development, Design and Evaluation of Advanced Refinery Wastewater Treatment Processes*, Fifth Semi-Annual Progress Report, October, 2009.
10. **El-Naas, M. H.,** S. Al-Zuhair, A. Al-Lobaney *et al.*, *Development, Design and Evaluation of Advanced Refinery Wastewater Treatment Processes*, Fourth Annual Progress Report, March, 2009.
11. **El-Naas, M. H.,** S. Al-Zuhair, A. Al-Lobaney *et al.*, *Development, Design and Evaluation of Advanced Refinery Wastewater Treatment Processes*, Fourth Semi-Annual Progress Report, October, 2008.
12. **El-Naas, M. H.,** S. Al-Zuhair, and S. Makhoulf, *Development, Design and Evaluation of Advanced Refinery Wastewater Processes*, Third Semi-Annual Progress Report, October, 2007.
13. **El-Naas, M. H.,** S. A. Al-Muhtaseb, and S.Makhoulf, *Development, Design and Evaluation of Advanced Refinery Wastewater Treatment Processes*, Second-Annual Progress Report, April, 2007.

f. Book Reviews, Other Articles, and Notes

1. **El-Naas, M. H.** A Different Approach for Carbon Capture and Storage (CCS), Editorial, *Research Journal of Chemistry and Environment*, Volume 12, Issue 2, June 2008, Pages 3-4.

g. Contracts and Grants (1\$US = 3.68 AED)

I. Externally Funded Research Projects

- Obtained funding from **TAKREER** as a Principal Investigator (2013-2016), “CO₂ Capture through reactions with high salinity water” (**2,227,500 AED**).
- Obtained funding from **NRF** as a Co-Investigator (2013-2015) “Effect of Fluidization Hydrodynamics on the Carbonation of Industrial Alkaline Solid Wastes” (**320,000 AED**).
- Obtained funding from **NRF** as a Co-Investigator (2012-2013) “*Production of Biofuels Using Date Palm Cellulosic Waste*” (**398,000 AED**).
- Obtained funding from **JCCP** of Japan as a Principal Investigator (2010-2013) “*Design and Evaluation of a Pilot Plant for the Treatment of Refinery Wastewater*”. The project is co-sponsored by the UAE petroleum industry (**9,750,000 AED**). A pilot plant was designed, fabricated, commissioned, and tested under real field conditions.
- Obtained funding from **NRF** as a Principal Investigator (2010-2012) “*Biodegradation of BTEX in a Novel Spouted Bed Bioreactor SBBR*” (**500,000 AED**).
- Obtained funding from **NRF** as a Co-Investigator (2010-2012) “*Sequestration of CO₂ through Reactions with Iron Slag*” (**500,000 AED**).
- Obtained funding from **JCCP** of Japan as a Principal Investigator (2010-2013), “*Development, Design and Evaluation of Refinery WW Treatment Processes*”. The project is co-sponsored by the UAE petroleum industry (**4,939,000 AED**). A novel process has been developed and a patent application has been registered.

II. University Funded Research Projects

- Received funding from UAEU for a seed project as a Co-Investigator (2008-2009), “*Applications of Intensified Catalytic plate Reactor in Methane Reforming: Catalyst Preparation and Characterization*” (**29,000 AED**).
- Received funding from UAEU for a seed project as a Principal Investigator (2006-2007), “*A Novel Approach for the Management of Desalination Reject Brine*” (**27,800 AED**).
- Received funding from UAEU for a seed project as a Principal Investigator (2002-2003), “*Competitive Bio-sorption of Cu, Pb & Zn from Simulated Wastewater*” (**28,000 AED**).
- Received funding from UAEU for a seed project as a Co-Investigator (2002-2003), “*Removal of Heavy Metals by Bio-sorption on Immobilized Algal Biomass*” (**20,000 AED**).
- Received funding from UAEU for a seed project as a Principal Investigator (2008-2009), “*Modeling and Experimental Investigation of Gas-Solid Reactions in Fixed Bed Reactors*” (**20,000 AED**).
- Received funding from UAEU for a seed project as a Co-Investigator (1998-1999), “*Transient of Hydrodesulphurization in a Fixed Bed Reactors*” (**20,000 AED**).
- Received funding from UAEU for an interdisciplinary project as a Co-Investigator (1999-2001), “*Sulfur Removal in Fluidized Bed Reactors: Mathematical Modeling and Experimentation*” (**200,000 AED**).

- Received funding from UAEU for an interdisciplinary project as a Co-Investigator (2001-2003), “*Selective Removal of H₂S and CO₂ from a Gas Stream Using Facilitated Transport Membranes*” (183,000 AED).

h. Fellowships, Prizes, and Awards

- Received **Best Professor Award**, Asian Education Leadership Awards, September 2014
- Received **Excellent Presentation Award** at the 5th International Conference on Chemical Engineering and Applications (CCEA 2014), Taipei, Taiwan, August 2014.
- Received **Best Professor in Chemical Engineering**, Asian Education Leadership Awards, September 2013.
- Received the College of Engineering **Best Performance Award** for excellence in scholarship, UAE University, June 2008.
- Received **Excellent Presentation Award** at the 2nd International Conference on Chemical Engineering and Applications (CCEA 2011), Maldives, Nov. 2011.
- Received the **Best Externally Funded Research Project Award** (College of Engineering), 9th UAEU Research Conference, April 2008.
- Received, as a Co-Investigator, the **Best Externally Funded Research Project Award** (College of Engineering), 8th UAEU Research Conference, April 2007.
- Received, as a Co-Investigator, the **Best Interdisciplinary Research Project Award** (College of Engineering), 6th Annual UAE University Conference, April 2005.
- Received the **Merit Award** in June 2007, UAE University.
- Received *Fellowship of the International Congress of Chemistry and Environment* (FICCE).

i. Editorships, Editorial Boards, and Reviewing Activities for Journals and Other Learned Publications.

- Member of the Editorial Board of the *Research Journal of Chemistry and Environment*
- Served as a member of the International Advisory Board for the *International Conference on Education and Learning Technologies* in Barcelona, Spain, 5-7 July 2010.
- Serving or have served as a reviewer for more than 22 international journals, including:

○ Journal of Hazardous Materials	○ Renewable Energy
○ Chemical Engineering Journal	○ Biochemical Engineering Journal
○ Bioresource Technology	○ Mathematical and Computer Modeling
○ Membrane Science	○ Chemical Engineering & Technology
○ Separation and Purification Tech.	○ Colloids & Surfaces A: Phys. Eng. Aspects
○ Biotech. and Applied Biochemistry	○ Ecotoxicology and Environmental Safety
○ Bioremediation Journal	○ Chemical Eng. Research and Design
○ European J. of Eng. and Education	○ Asia-Pacific J. of Chemical Engineering
○ Chemical Eng. Research and Design	○ International J. of Chemical Engineering
○ Desalination	○ Environmental Education Research
○ CLEAN - Soil, Air, Water	○ Chemical Ind. and Chem. Eng. Quarterly
- Served as a reviewer of several internal and external grant applications
- Served as an examiner of several M.Sc. and PhD theses

j. Other.

- Organized a Specialty Symposium on “Carbon Management” as part of the UAEU annual research conference, April 2009.
- Established the “Biotechnology and Water Purification Research Laboratory” and acquired about 2,000,000 AED worth of equipment, in addition to a new 4,600,000 AED Wastewater Treatment Pilot Plant.
- Participated as a team member in establishing the “Membrane Separation Research Laboratory” with about 3,000,000 AED worth of equipment.

3. Teaching, Mentoring, and Advising

a. Courses taught in the last five years.

Course code	Course title	Course type
CHME 433	Water Desalination	Undergraduate
CHME 508	Chemical Process Control	Undergraduate
CHME 585	Graduation Project	Undergraduate
CHME 590	Graduation Project II	Undergraduate
CHME 712	Advanced Reaction Engineering	Graduate
CHME 724	Advanced Process Dynamics and Control	Graduate
CHME 740	Independent Research in Chemical Engineering	Graduate
GENG 602	Environmental Impact Assessment	Graduate
PTSE 700	Graduate Seminar	Graduate
WATR 619	Thermal Desalination	Graduate

b. Course or Curriculum Development.

- Developed two core chemical engineering courses, namely *Reactor Design (CHME 411)* and *Chemical Process Control (CHME 508)* as part of the Innovation in Teaching Project. Also, developed *Water Desalination* and *Process Control* as laptop courses.
- For Process Control, the development involved exposing the students to a new method of teaching process control that utilizes hands-on training through combining experimentation and dynamic simulation. The present method of teaching process control puts too much emphasis on theory and mathematics and pays no attention to hands-on training in the actual design, tuning and stability analysis of control systems. The course development included the preparation of a set of workshops for dynamic simulation of different *Case Studies* of chemical process units using a Computer Package (Control Station, Loop-Pro) and a set of laboratory experiments to illustrate manual and PID control of different control variables using Process Control Unit (PCU).
- For Water Desalination, active learning was the central part of this course development, where students are heavily involved in class activities rather than being passive receptors of materials. The students are directly involved in the preparation of Excel sheets and Ez-Solve algorithms as well as carrying out their analysis. Three aspects of active learning were employed in this course: Problem-Based Learning, Project-Based Learning, and Engaged Learning. The students also interact with each other and with the instructor in discussing the physical justifications of the observed results. A journal paper was published on these developments.
- Also developed two graduate courses (*Advanced Process Control, CHME 724* and *Environmental Impact Assessment, GENG 602*).

- Participated actively in the preparation for the ABET accreditation review for the Chemical Engineering Program. As a member of the department Curriculum and Outcome Assessment Committees, I participated in the review of curriculum changes in the program, preparation of course syllabi, updating course files and organizing and collecting graduate surveys.
- Participated in a sub-committee to evaluate the Math content of the engineering curriculum, which was decided by the ABET follow-up committee. We studied the Math content of the curriculum as compared to those of leading universities in Canada and USA and suggested changes in number of courses, credit hours and subject covered. I have also participated in a similar committee that evaluated the course content of *Engineering Economy*.

c. Teaching Awards and Other Special Recognition

- Supervised several teams of students who won local and international awards:
 - i. **First place award**, Local AIChE Chapter's 2nd Chemical Engineering Competition, PI, Abu Dhabi, UAE, May 2010
 - ii. **Best student paper Award**, UAEU Research Conference, Al-Ain, April 2006
 - iii. **First place award**, Innovation and Design Competition, SQU, Masqat, Oman, April 2004
 - iv. **First place award**, UAEU Environmental Design Competition, Al-Ain, UAE, March 2002
 - v. **Best written report**, UAEU Environmental Design Competition, Al-Ain, UAE, March 2002
 - vi. **Most innovative design**, UAEU Environmental Design Competition, Al-Ain, UAE, April 2000
 - vii. **Best written report**, UAEU Environmental Design Competition, Al-Ain, UAE, April 2000
 - viii. **Best bench-scale award**, WERC Environmental Design Competition, Las Cruces, USA, April 1999.

d. Advising: Other than Research Direction

I supervised the graduation projects for **10** groups of senior chemical engineering students. The design projects were:

- Design of a plasma process for the generation of H₂ from natural gas
- Design and simulation of a process for the purification of industrial wastewater
- Design of a process for the production of acetylene with minimum waste generation
- Design of a process for the management of Desalination Reject Brine
- Design and Simulation of a Humidification-Dehumidification process for Seawater Desalination.
- Design of a Process for the Removal of Chromium from Groundwater
- Design of a Process for the Desulphurization of Crude Oil
- Design of a Novel process for the Removal of H₂S from a Gas Stream
- Design of a Spouted Bed Process for the Sulfur Coating of Urea
- Design of a Sludge Treatment Plant

Also, I supervised the industrial training of more than **20** Chemical Engineering Students in more than **10** different companies. These include:

- Abu Dhabi Oil Refining Company (TAKREER)
- Abu Dhabi Marine Operating Company (ADMA-OPCO)
- Abu Dhabi Company for Onshore Oil Operations (ADCO)

- Abu Dhabi Sewerage Service Co.
- Abu Dhabi Food Control Authority
- Dubai Central Laboratory Department
- Ghadeer Mineral Water Co.
- AL Fujairah Cement Industries
- Emirates Cement Factory, Al-Ain
- Sharjah Electric and Water Authority (SEWA)

Also, I served as the academic adviser of **79** Chemical Engineering students. These included Class of **1997**, Class of **2004** and **Class of 2006**. This involved preparing a study plan for each group and making sure that they follow the study plan.

f. Advising: Research Direction

i. Undergraduate

I supervised research projects for an elective course (Independent Studies in Chemical Engineering). These include the following:

- Investigation of the kinetics of the decomposition of MgCO_3
- Effect of Temperature on the porosity of calcium oxide
- Investigation of the Hydrodynamics of a fluidized bed
- Bio-desulphurization of Crude Oil
- Removal of heavy metals from wastewater using Bacteria and algae
- Application of Indigenous bio-sorbents for the removal of Arsenic from wastewater

ii. Master's

The M.Sc. Program started in 2006, and since most students work during day time and attend as part-timer, they often chose the non-thesis option. I have supervised the M.Sc. thesis of seven students. The following are the topics of the 7 theses:

1. Shaima Hamdan, "*Removal of Chromium (VI) from Groundwater by Electrocoagulation*"
2. Riham Surkatti, "*Evaluation of the Biodegradation of Cresols by P. putida*",
3. Ayat El Telib, "*Modeling the Biodegradation of BTEX in a Spouted Bed Bioreactor*",
4. Ameera Fares, "*Evaluation of a Combined Approach for the Management of Desalination Reject Brine and Capture of CO_2* "
5. Shereen Wajeeh, "*Assessment of Electrocoagulation for the Treatment of Carbide Slurry*"
6. Suhaib Hameedi, " *CO_2 capture through reactions with steel-making dust*"
7. Janice Acio, "*Synergic effect of adsorption on the biodegradation of hydrocarbons*"

iii. Doctoral

I supervised the first PhD student to be admitted to the department, as the program started in January 2010. The student successfully defended her thesis on May 26, 2014. The thesis title is:

1. "*Biodegradation of Chlorophenols in a SBBR: Modeling and Experimentation*", Taghreed Al-Khalid. .

4. Service

a. Professional

i. Offices and committee memberships held in professional organizations.

- Fellow of the International Congress of Chemistry and Environment (FICCE)
- Member of the Canadian Chemical Institute (MCIC).
- Member of the Canadian Society for Chemical Engineering.
- Member of the American Institute of Chemical Engineers.

ii. Other non-University committees, commissions, panels, etc.

- I represented the UAE University in the High Level Committee of GASTECH 2006, which was the largest conference in the world devoted to the Natural Gas Industry. It was hosted by ADNOC in Abu Dhabi.
- I served as a member of the Local Organizing Committee of the *1st International Conference on Desalination and Environment (ICODE 2011)* in Abu Dhabi. Also served as a session chair in the conference

iii. Paid consultancies

- Carried out consultancy work, with other colleagues, for EIGC of Dubai (2007-2008), “*Management of Calcium Hydroxide Slurry*”, **(131,000 AED)**.
- Carried out consultancy work, with other colleagues, for **Gulf Extrusion Co.** Dubai (2007-2008), “*The Recovery of Spent Caustic Soda from Aluminum Extrusion Process*” **(277,000 AED)**. A novel process was developed for the recovery of spent caustic soda.

b. Campus

i. Department, College and University

Served as a chair or a member of the following department, college and university committees:

- | | |
|---|---|
| • Member of the University Research Council | • Chair of the Department Space and Safety Committee |
| • Chair of the College Safety Committee | • Chair of the Department Internet-computer Committee |
| • Member of the College Scheduling Committee | • Chair of the Department Research Committee |
| • Member of the College Course Development Committee | • Member of the Department Scheduling Committee |
| • Member of the College Alumni Committee | • Member of the Department Field Trips Committee |
| • Member of the College Examination Committee | • Member of the Department Curriculum Committee |
| • Member of the Environmental Design Contest (EDC) organizing Committee | • Member of the Department Outcome Assessment Committee |
| • Member of the College Peer Evaluation in Teaching Committee | • Member of the Department Engineering Day Committee |
| • Member of the Steering Committee on Energy and Environment Center | |