

CURRICULUM VITAE

Personal Information

Name Muhanned Adnan Hararah
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Nationality Jordanian
Date of birth 23 July 1971
Marital status Married (4 children)



Qualifications

Feb. 2013 – Jan. 2017 MBA
Business Management Department, University of Jordan (UJ),
Amman, Jordan.

Feb. 2000 – Nov. 2004 Ph.D. (Dr.-Ing.) in Environmental Engineering (Physical
Separation).
Institute of Environmental Process Engineering and Recycling
(Lehrstuhl für Umweltverfahrenstechnik und Recycling LUR),
Friedrich-Alexander-University, Erlangen-Nürnberg, Paul
Gordan Strasse 3, 91052 Erlangen, Germany.

Sep. 1995 – Feb. 1999 M.Sc. in Chemical Engineering.
Chemical Engineering Department, University of Jordan (UJ),
Amman, Jordan.

Sep. 1989 – Jan. 1995 B. Sc. in Chemical Engineering.
Chemical Engineering Department, University of Jordan (UJ),
Amman, Jordan.

Professional Experience

- Jun. 2016 – Now Professor at the Environmental Engineering Department. Al-Hussein Bin Talal University, Ma'an-Jordan.
- Sep. 2015 – May. 2016 Visitor at the Mechanical Engineering Department. University of Jordan, Amman-Jordan (**Professor, Jan. 2016**).
- Taught courses:**
Sanitation, Numerical Methods for Engineers, and Matlab.
- May. 2015 – Aug. 2015 Associate Professor at the Environmental Engineering Department. Al-Hussein Bin Talal University, Ma'an-Jordan.
- Mar. 2012 – Apr. 2015 Member in the Aqaba Special Economic Zone Authority (ASEZA) Board of Commissioners (Aqaba/Jordan)-Royal Decree. Commissioner for Environmental Affairs and Health Control.
- Deputy Chairman of Aqaba Port Marine Services Company Board of Directors. Member of Jordan Maritime Authority Board of Directors. Member of Marine Science Station Council.
- Policy Making for ASEZ, Overseen the environmental management in the zone through the environment and laboratories directorates, Managed the health issues in the zone through the health control directorate, Managed the protected areas through the marine park and Wadi Rum directorates, Substituted the head of Jordan's delegation (Attended almost all meetings) for the European Neighborhood Partnership Initiative, Cross-Border Cooperation Program in the Mediterranean, Jordan's focal point for the regional organization for the conservation of the environment of the Red Sea and Gulf of Aden. Deputy Chairman of ASEZA's higher committee for planning and license, Chairman of the ASEZA's steering committee for donor-supported international projects.
- Sep. 2011 – Feb. 2012 Visitor at the Chemical Engineering Department. University of Jordan, Amman-Jordan.
- Taught courses**
Thermodynamic I, Principles of Chemical Engineering I, Safety.
- Sep. 2010 – Aug. 2011 Manager of the Admission and Registration Unit, (**Associate Professor, Jan. 2011**).
- Al-Hussein Bin Talal University, Ma'an-Jordan.
- Sep. 2009 – Aug. 2010 Vice Dean of the Engineering Faculty (Assistant Professor).
- Al-Hussein Bin Talal University, Ma'an-Jordan.

Sep. 2007 –Aug.2009 Assistant Professor at the Environmental Engineering Department. Al-Hussein Bin Talal University, Ma'an-Jordan.

Sep. 2005 - Aug. 2007 Chairman of the Environmental Engineering Department (Assistant Professor).

Al-Hussein Bin Talal University, Ma'an-Jordan.

Taught courses

Introduction to Environmental Engineering, Environmental Chemistry, Material Science and Engineering, Air Pollution, Contaminated Land, Energy Engineering, Solid Waste Management, Environmental Issues.

Jul. 2005 - Aug. 2005 Lecturer at the Civil Engineering Department.

Al-Isra' University, Amman-Jordan.

Taught courses

Environmental Engineering, Wastewater Treatment.

Feb. 2000 - Jan. 2005 Researcher at the Institute of Environmental Process Engineering and Recycling.

Friedrich-Alexander-University, Erlangen-Germany.

Research project:

Settling of Fine Particles in Dense Polydisperse Suspensions.

Feb. 1997 – Feb. 1999 Teaching assistant at the Chemical Engineering Department.

University of Jordan, Amman-Jordan.

Assistant functions include the following courses:

Physical Chemistry, Process Design, Process Heat Transfer.

Jun. 1995 - Jan. 2000 Technician at Queen Alia Hospital.

Amman-Jordan.

Working area: Treatment of boiler feed water (Reducing scaling, priming and corrosion by using degassing, phosphate treatments, corrosion inhibitor treatment and anti-priming treatment).

Research Interests

- Water and Wastewater treatment
- Air pollution, Waste, and Energy
- Environmental Management
- Separation Processes

Scientific Activities

- Apr. 2012- Oct. 2020 Participated in many conferences, and workshops worldwide (i.e.: Oman, Egypt, Morocco, Kuwait, United Arab Emirates, Saudi Arabia, Bahrain, Lebanon, Turkey, Switzerland, Germany, Italy, Spain, Portugal, Belgium, UK, Singapore, Japan, and USA)
- 18-20 Oct., 2010 30th Oil Shale Symposium, Colorado School of Mines, Golden-USA.
- 19-21 Oct., 2009 29th Oil Shale Symposium, Colorado School of Mines, Golden-USA.
- 16-17 June, 2009 Physical Separation 09, Falmouth, UK.
- 30 May 2009 – 29 Aug. 2009
&
14 June 2008 – 13 Sep. 2008
&
9 June 2007 – 5 Sep. 2007 Scientific research in physical separation field at the Institute of Environmental Process Engineering and Recycling, Friedrich-Alexander-University, Erlangen -Nuremberg, Germany.
- Nov. 2008 – Nov. 2012 Project manager of Al-Hussein Bin Talal University in the "Rangeland and Forest Fire Prevention" project (Partner: Greece).
- 19 – 21 Oct. 2008 Jordanian-Germany International Workshop about Water resources in the middle east – reality and aspiration. Irbid-Jordan.
- Nov. 2006 – 2008 Project manager of Al-Hussein Bin Talal University in the "Integrated Development and Management of NATURA 2000 Protected Areas through Innovative Techniques in East. Mediterranean" project-(Partners: Greece, Italy, Cyprus & Turkey).
- 13 – 15 Dec. 2005 Workshop in Bio-solids Risk Assessment and Standards Development (Royal Scientific Society-Environmental Research Center, Amman, Jordan).
- 8 - 10 Nov. 2005 Workshop in Renewable Energy (Department of Physics-Hashemite University, Amman, Jordan).
- 13 - 20 July 1996 Workshop in Industrial water treatment (JEA, Amman, Jordan).

Publications

Eyad Batarseh, **Muhanned A. Hararah**, Assal Haddad (2018). Analysis of refuse derived fuel utilization from Aqaba municipal solid waste. *Jordan Journal of Civil Engineering*, 12(2), 245-253.

Motasem N. Saidan, **Muhanned A. Hararah**, Zayed Alhamamre, Jihad Alsawair, Raed A. Damra, Bashar Bataineh, Mohammad Badran (2018). *PCDD/Fs into sediments of Aqaba Coastal City, Jordan: the relation to atmospheric pollution*. *Desalination and water treatment*, 104, 91-98.

Zayed Al-Hamamre, Motasem Saidana, **Muhanned Hararah**, Khaled Rawajfeh, Hussam E. Alkhasawneh, Mohammad Al-Shannag (2017). *Wastes and biomass materials as sustainable-renewable energy resources for Jordan*. *Renewable and Sustainable Energy Reviews*, 67, 295–314.

Muhanned A. Hararah, Motasem Saidan, Ahmad M. Abu-Jrai, Zayed Alhamamre, Jihad Alsawair, Raed A. Damra (2016). *The PCDD/PCDF emission inventory in Jordan: Aqaba city*. *Journal of Chemical Technology and Metallurgy*, 51 (1), 112-120.

Muhanned Hararah, Zayed Al-Hamamre (2016). *Viscosity correlations for jobo oil blends with biodiesel and petroleum diesel*. *Energy Sources, Part A, Utilization, and Environmental Effects*, 38 (13), 1904-1911.

Mohammad Al-Hwaiti, Khalid A. Ibrahim, **Muhanned Hararah** (2015). *Removal of heavy metals from waste phosphogypsum materials using polyethylene glycol and polyvinyl alcohol polymers*. *Arabian Journal of Chemistry*. In press.

Mohammad Al-Harashseh, Awni Al-Otoom, Leema Al-Makhadmah, Ian E Hamilton, Sam Kingman, Sameer Al-Asheh, **Muhanned Hararah** (2015). *Pyrolysis of Poly(vinyl chloride) and electric arc furnacedust mixture*. *Journal of Hazardous Materials*, 299, 425-436.

Mohammed M. A. Kotb, Nedal M. Alouran, Abdullah A. Awali, **Mohannad A. Hararah** (2015). *Coral translocation: mitigating adverse impact of development along the Aqaba coastline*. *Biomedical and Pharmacology Journal*, 8(15),91-101.

Mohammad Al-Harahsheh, Kamel Al-Zboon,; Leema Al-Makhadmah, **Muhannad Hararah**, Mehaysen Mahasneh (2015). *Fly ash based geopolymer for heavy metal removal: a case study on copper removal*. Journal of Environmental Chemical Engineering, 3(3), 1669-1677.

Ahmad M. Abu-Jrai, Jehad A. Yamin, Khalid A. Ibrahim, Omar A. Al-Khashman, Mouath A. Al-Shaweesh, **Muhanned A. Hararah**, Umer Rashid, Mohammad Ahmad, Gavin M. Walker, Ala'a H. Al-Muhtaseb (2014). *NO_x removal efficiency and N₂ selectivity during selective catalytic reduction processes over Al₂O₃ supported highly cross-linked polyethylene catalysts*. Journal of Industrial and Engineering Chemistry, 20 (4), 1650-1655.

Muhanned Hararah, Farah Al-Nasir, Tayel El-Hasan, Ala'a H. Al-Muhtaseb (2012). *Zinc adsorption-desorption isotherms: possible effects on the calcareous vertisol soils from Jordan*. Environmental Earth Sciences, 65 (7), 2079-2085.

S. Al-Thyabat, **M. Hararah**, K. Tarawneh, H. Al-Zoubi (2012). *Preliminary investigations into the use of Jojoba oil as a possible collector in phosphate flotation*. Book chapter (41), Beneficiation of phosphates: New ideas, New Technologies, New Developments, published by the society for mining. Metallurgy and Exploration, Florida, USA.

A. Abu-Jrai, Jehad A. Yamin, Ala'a H. Al-Muhtaseb, **Muhanned A. Hararah** (2011). *Combustion characteristics and engine emissions of a diesel engine fueled with diesel and treated waste cooking oil blends*. Chemical Engineering Journal, 172 (1), 129-136.

Golyk, V., Huber, S., Farghaly, M. G., Prölss, G., Endres, E., Neesse, T., **Hararah, M. A.** (2011). *Higher kaolin recovery with a water injection cyclone*. Journal of Minerals Engineering, 24, 98-101.

Neesse, T., Farghaly, M. G., **Hararah, M. A.**, Prölss, G., Rubarth, W., Kaniut, P. (2010). *Higher classification efficiency by hydrocyclone control*. CIM Magazine, 6 (4).

Z. Al-Hamamre, **M.A. Hararah**. (2010). *Hydrogen production by thermal partial oxidation of ethanol: thermodynamic and kinetic study*. International Journal of Hydrogen Energy, 35, 5367-5377.

Muhanned A. Hararah, Khalid A. Ibrahim, Ala'a H. Al-Muhtaseb, Rushdi I. Yousef, Adnan Abu-Surrah, Ala'a Qatatsheh. (2010). *Removal of phenol from aqueous solutions by adsorption onto polymeric adsorbents*. Journal of Applied Polymer Science, 117 (4), 1908-1913.

M.A. Hararah, E. Endres, J. Dueck, L. Minkov, T. Neesse. (2010). *Flow conditions in the air core of the hydrocyclone*. Journal of Minerals Engineering, 23, 295–300.

Ala'a H. Al-Muhtaseb, **Muhanned A. Hararah**, E.K. Megahey, W.A.M. McMinn, T.R.A. Magee. (2010). *Moisture adsorption isotherms of microwave-baked Madeira cake*. LWT - Food Science and Technology, 43 (7), 1042-1047.

Ala'a H. Al-Muhtaseb, **Muhanned A. Hararah**, E.K. Megahey, W.A.M. McMinn, T.R.A. Magee. (2010). *Dielectric properties of microwave-baked cake and its constituents over a frequency range of 0.915–2.450 GHz*. Journal of Food Engineering, 98 (1), 84-92.

Ala'a H. Al-Muhtaseb, Mohammad Al-Harashsheh, **Muhanned Hararah**, T.R.A. Magee. (2010). *Drying characteristics and quality change of unutilized-protein rich-tomato pomace with and without osmotic pre-treatment*. Industrial Crops and Products, 31 (1), 171-177.

Hararah, M. A., Al-Salaymeh, A., Sakhrieh, A., Salaymeh, M.: *Perspectives of water resources in Jordan for oil shale production*. Poster, Colorado School of Mines, Golden-USA, October 19-21, 2009.

M. A. Hararah, M. Al-Harashsheh, A. H. Tobgy. (2009). *A Preliminary study on the hydrogen reduction of Jordanian iron ore*, Mineral Processing and Extractive Metallurgy (TIMM C), 118 (2), 105-108.

Al-Salaymeh, A., **Hararah, M. A.**, Sakhrieh, A., Salaymeh, M.: *Current Water Situation in Jordan: Problems and Solutions*, Water resources in the middle east–reality and aspiration Workshop. Irbid-Jordan, October 19 – 21, 2008.

Al-Thyabat, S., Tarawneh, K., **Hararah, M. A.**, Rawashdeh, I., Ryan, D., Majali, T.: *Beneficiation of Jordanian phosphate: a review of current practices*. The 5th Jordanian international mining conference, Amman, Jordan, September 3-6, 2007.

M. A. Hararah, J. Dueck, Th. Neesse, L. Minkov. (2006). *Investigation of disturbed settling in polydisperse suspension*. Eurasian Physical Technical Journal, 3 (2), 27-37.

Dueck, J., Neesse, Th., Minkov, L., Kiliminik, D., **Hararah, M. A.**: *Theoretical and experimental investigation of disturbed settling in a polydisperse suspension*. 5th International Conference on Multiphase Flow, ICMF'04, Yokohama, Japan, May 30-June 4, 2004.

Hararah, M. A., Dueck, J., Neesse, Th.: *Poster in title: Disturbed settling of individual fractions of a polydisperse suspensions*. Baden conference, Germany, 22-24 March 2004.

Awards

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| April 2001 - Dec. 2004 | • DAAD |
| June 2007 - Sep. 2007
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June 2008 - Sep. 2008
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May 2009 - Aug. 2009 | • DFG |

Research Grants Awarded

- Jordanian phosphate beneficiation, 2007, Shoman Foundation & Al-Hussein Bin Talal University.
- Investigation of the flow conditions in the hydrocyclone, 2008, Scientific research fund/Ministry of Higher Education and Scientific Research/Jordan & Al-Hussein Bin Talal University.
- Biodiesel production from waste cooking oil: yield and environmental aspects, 2009, Al-Hussein Bin Talal University.

References

References available upon request