

Husam A. Abu Hajar, Ph.D.

Personal Information

- Date of birth: June 28, 1986.
- Gender: Male.
- Nationality: Jordanian.
- Languages: Arabic (native) and English (fluent).

Contact Information

Civil Engineering Department, The University of Jordan.
Amman, Jordan, 11942.
Phone No. +962-6-5355000.
Cell Phone No. +962-7-97940440.
Email: h.abuhajar@ju.edu.jo

Education

Ph.D. Civil Engineering, The Ohio University, Jan, 2012 – July, 2016

- GPA: 3.91 / 4.00.
- Dissertation title: “Sustainable Cultivation of Microalgae Using Diluted Anaerobic Digestate for Biofuels Production”.

M.S. Civil Engineering, The Ohio University, Jan, 2010 – Dec, 2011

- GPA: 3.97 / 4.00.
- Thesis title: “Exfiltration Trenches for Post Construction Storm Water Management for Linear Transportation Projects: Field Study of Suspended Materials”.

B.S. Civil Engineering, The University of Jordan, Oct, 2004 – Feb, 2009

- GPA: 3.78 / 4.00.

Research Interests

- Solid waste management.
- Renewable and sustainable energy.
- Water and wastewater treatment.
- Storm water best management practices.
- Microalgae cultivation.
- Modelling in environmental engineering.
- Acid mine drainage treatment.

Experience

- Assistant Professor of Civil Engineering at The University of Jordan, Sep, 2016 – present
 - Teaching Civil and Environmental Engineering classes at the undergraduate level such as Water Supply Engineering, Environmental Engineering, Environmental Engineering Laboratory, Engineering Economy, and Engineering Statistics.
 - Supervising undergraduate students on their capstone design projects.
 - Conducting research in the environmental engineering field.
 - Member of several committees on the department and college level such as the Civil Engineering Department ABET committee.

- Research graduate assistant at The Ohio University, Jan, 2010 – Aug, 2016
 - Microalgae cultivation for the production of biofuel and wastewater treatment.
 - Modelling and optimization of the microalgal growth.
 - Acid mine drainage treatment for the production of paint pigments.
 - Storm water best management practices.
 - Wastewater treatment modelling.
 - Teaching portions of graduate level classes in the Civil Engineering Department such as Advanced Wastewater Treatment and Water Quality Engineering.

- Engineer at The National Electric Power Company (NEPCO), Amman, Jordan, Jun, 2009 – Dec, 2009
 - Construction projects consultant.

- Engineer at El Concorde Construction Company, Amman, Jordan, Feb, 2009 – May, 2009
 - Cost estimation.
 - Quantity surveying.
 - Bidding documents preparation.

Computer Software

- EnviroSim BioWin wastewater treatment process simulator.
- IBM SPSS statistical analysis software.
- USGS PHREEQC water quality modelling software.
- Microsoft office (Word, Excel, Powerpoint).
- WaterCAD.
- SewerCAD.
- EPANET.
- Basic knowledge of MATLAB, AutoCAD, C++, HEC-RAS, ABAQUS, and SuperPro.

Publications

- Abu Hajar, H. A., Riefler, R. G., & Stuart, B. J.** (2017). Cultivation of the microalga *Neochloris oleoabundans* for biofuels production and other industrial applications (a review). *Appl Biochem Microbiol*. In press.
- Abu Hajar, H. A., Riefler, R. G., & Stuart, B. J.** (2017). Cultivation of *Scenedesmus dimorphus* using anaerobic digestate as a nutrient medium. *Bioproc Biosyst Eng*, 40(8), 1197-1207.
- Abu Hajar, H. A., Riefler, R. G., & Stuart, B. J.** (2016). Anaerobic digestate as a nutrient medium for the growth of the green microalga *Neochloris oleoabundans*. *Environ Eng Res*, 21(3), 265-275.
- Abu Hajar, H. & Riefler, R.** (2013). Selective precipitation of aluminum and iron from acid mine drainage. In *National Association of Abandoned Mine Land Programs Conference*. Daniels, WV.
- Goetz, E., **Abu Hajar, H.**, & Riefler, R. (2013). Recovering metals from acid mine drainage through electrolysis: A pilot study. In *World Mining Conference*. Montreal, Canada.

Awards and Honors

- 1st place winner in Ohio University Expo Idea Pitch Competition, Apr, 2016
Presentation title: “*Organic Waste Management and Energy Recovery in Northern Jordan*”.
- 1st place winner in Graduate Students Competition/ Institute of Biological Engineering Conference, Lexington, KY, Mar, 2014
Presentation title: “*Algae-based Sustainable House*”.
- 2nd place winner in Ohio University Expo Idea Pitch Competition, Apr, 2013
Presentation title: “*Recovering Metals from Acid Mine Drainage through Electrolysis: A Pilot Study*”.
- 2nd place winner in Ohio University International Students Symposium, Feb, 2013
Presentation title: “*Selective Precipitation of Aluminum and Iron in Acid Mine Drainage*”.
- 1st place winner in Ohio University Expo Poster Competition/ Civil Engineering, May, 2012
Presentation title: “*Exfiltration Trenches for Post Construction Storm Water Management for Linear Transportation Projects: Field Study of Suspended Materials*”.
- 1st place winner in Ohio University Expo Poster Competition/ Civil Engineering, May, 2011
Presentation title: “*Exfiltration Trench for Storm Water Highway Runoff Treatment*”.