Biography

Dr. Ghanimeh received her PhD in Environmental and Water Resources Engineering from the American University of Beirut, in September 2012. While conventional engineering practices render the waste management sector a heavy energy consumer, with less-than-optimal resource conservation, Dr. Ghanimeh's work focuses on efficient treatment processes that recover energy, water and resources from solid waste and wastewater. Specifically, she studies systems that include biological treatment components – as those are known to have low environmental impacts, high nutrient reuse and reduced carbon footprint. In addition, Dr. Ghanimeh is interested in addressing the impact of climate change on local communities and searching for feasible adaptation measures, namely from the water-waste-energy nexus perspective.

Peer-reviewed Journals

- El-Chakhtoura J., El-Fadel, M., Anandarao, H., Li D., Ghanimeh S. and Saikaly P. Electricity generation and microbial community structure of air-cathode microbial fuel cells powered with the organic fraction of municipal solid waste and inoculated with different seeds, Biomass and Bioenergy, 67, 24-31, 2014.


Peer-reviewed Conference Proceedings


• Al-Sanioura D., Ghanimeh S., Saikaly P and El-Fadel M. Startup of thermophilic anaerobic digestion systems with high solids food waste influent. 5th international symposium on energy from biomass and waste, Venice, Italy, November 17-20, 2014.


International specialized reports:
• Member of: NDU team for development and implementation of the CLIMASP project, a European Commission TEMPUS funded project titled “Development of an Interdisciplinary Programme in Climate Change and Sustainability Policy”: http://www.climasp.eu/, 2014-15.


• Main contributor: Climate Change Research and Capacity Needs and Opportunities in the Middle East: A Scoping Study (El-Fadel M.). International Development and Research Center, Canada pp. 83 July 2010.

Competitions
Local
• 05/2017 Winner of the 2nd prize at ENVIRONMATE (Environmental Accelerator)Issuer: The Global Compact Network, Lebanon
  Project Title: Generating Energy and Fertilizers from Food Waste and Wastewater
  Submitted by my MS advisee, Mr. Charbel Abou Khalil

• 05/2017 Winner of the 3rd prize at Innovate for Lebanon National Competition
  Issuer: Ministry of Higher Education, Lebanon
  Project: Microbial Fuel Cell application for electricity generation from olive oil waste

• 05/2017 Winner of Agrytech Accelerator Program Phase I: Bootcamp
  Issuer: the Embassy of Kingdom of Netherlands and Berytech, Lebanon
Project Title: Fertilizer and clean Energy Generation from Waste

- 11/2016 Winner of the MOST DISTINGUISHED SUPERVISOR Prize in LIRA Competition for Industry Oriented Projects
  Issuer: Ministry of Industry, Lebanon, and the Association of Lebanese Industrialists
  Funding Company: INDEVCO, Lebanon
  Project Title: Generation of Clean Energy through Improved Co-Digestion of Food Waste and Wastewater

- 11/2016 Winner of the FIRST PRIZE in LIRA Competition for Industry Oriented Projects
  Issuer: Ministry of Industry, Lebanon, and the Association of Lebanese Industrialists
  Funding Company: INDEVCO, Lebanon
  Project Title: Generation of Clean Energy through Improved Co-Digestion of Food Waste and Wastewater

- 11/2016 Winner of the Berytech INCUBATION AND BUSINESS SUPPORT Prize for LIRA Project
  Issuer: Ministry of Industry, Lebanon, and the Association of Lebanese Industrialists
  Funding Company: BERYTECH, Lebanon
  Project Title: Generation of Clean Energy through Improved Co-Digestion of Food Waste and Wastewater

International

- 01/2018 Winner of the ISWA-SWIS Scholarship, Arlington, Texas
  Issuer: Solid Waste Institute for Sustainability
  A scholarship to attend ISWA-SWIS winter school at University of Texas at Arlington

- 09/2016 Winner of the ISWA-TU Vienna Scholarship, Vienna, Austria
  Issuer: International Solid Waste Association and Vienna University of Technology
  Project title: Thessaloniki, Greece, and Keserwan, Lebanon: Waste Management Alternatives

- 08/2015 Winner of the Arab-American Frontiers Fellowship
  Issuer: National Research Council – The National Academies, Washington, DC, USA
  Fellowship title: Energy-Efficient Design of Anaerobic Digesters with Pillars-sequence enhanced Mixing

- 02/2014 Selected to Participate in the 2nd Arab-American Frontiers Symposium (with full coverage of expenses), Oman
  Issuer: Research Council of Oman and The National Academies, Washington, DC
  Presentation title: Concurrent recovery of water & energy from food waste and wastewater through anaerobic co-digestion

- 2013 Finalist of the TechWomen program
  Initiative of the U.S. Department of State’s Bureau of Educational and Cultural Affairs

Esteemed indicators

- 2018 - present Member of the Working Group on Landfill (WGL)
  International Solid Waste Association (ISWA)
  http://www.iswa.org/index.php?id=305

- 2014 - present Chair
  University/College Education & Student Development Committee
  Education Council
  Air and Waste Management Association (A&WMA), USA
  https://www.awma.org/edcouncil

CV

http://www.ndu.edu.lb/Library/Assets/Files/Documents/NDUFacultyProfiles/NDUFacultyCVs/Sophia%20Ghanime.pdf