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Prof. Motasem Saidan

Former Minister of Water and Irrigation

In His capacity as the **Minister of Water and Irrigation**, between 2020-2021, Prof. Saidan was responsible for overall national leadership on policy, strategic direction and planning of Jordan water sector, in coordination with the Water Authority of Jordan (WAJ) and Jordan Valley Authority (JVA).

Throughout 2016-Oct 2018, Prof. Saidan has led a multidisciplinary team of experts in the fields of Water-Energy-Environment nexus, in his capacity as a **Director of Water, Energy & Environment Center** at the **University of Jordan**. He has undertaken several technical review, auditing, and evaluation requested by PRIMA, EBRD, UNDP, GEF, EU, and local organizations. As well as, Dr. Saidan coordinated research projects funded by EU, UNIDO, USAID, GIZ, and OXFAM through Ministry of Municipalities, Ministry of Water, Ministry of Environment, and Ministry of Energy. His activities include refereeing of research projects for several national and international bodies.

Professor of environmental engineering, management & technology, Motasem Saidan, carries out scientific research in the areas of waste to energy, solid waste management, water and wastewater treatment, hazardous chemicals and waste management, cleaner production and pollution prevention, chemical process safety and hazard management, air pollution control and dispersion modeling, and environmental impact assessment. Holds a Ph.D. in chemical engineering, has received numerous grants and contracts for research and national projects activities.

Throughout 2006-2011, he was the **Executive Director of the Industrial Technology Cluster** at the Royal Scientific Society, Amman, Jordan.

Throughout Coronavirus (COVID-19) outbreak in Jordan (March- to date), Prof. Saidan has joined the National Center for Security and Crisis Management, and designed a mathematical model to predict the daily and cumulative predicted cases out of the outbreak. His model was programmed and offered to the decision makers for logistics and risk management.

Prof. Saidan is a *Technical writer-editor* with a broad range of sources of pertinent information. He is skilled in reporting for project work packages and deliverables; and consultancies reports. He is a member in the editorial board of several respected panels, journals, and councils.

EDUCATION

- **Post-Doc in Environmental and Chemical Engineering**, Georgia Tech, GA, USA, 2006
- **PhD in Chemical Engineering**, Technical University of Darmstadt, Darmstadt, Germany, 2005
- **MSc in Chemical Engineering**, University of Jordan- Amman, Jordan, 2001
- **BSc in Chemical Engineering**, University of Jordan- Amman, Jordan, 1998
- **IASTE international training for Chemical Engineering**, Public Power Corporation, Ptolemais, Amynden Lignite Center, Greece, 1997

PROFESSIONAL AFFILIATIONS

- **Certified International Waste Manager**, Vienna, ISWA, 2016-2017, 2016-date
- **Chartered Head of Specialist & Consultant in Environmental Engineering (With Highest Rank A)**, Jordanian Engineering Society, 2015-date
- **Representative Member** for the Jordanian Engineers Association in the Water Resources Committee at the Federation of Arab Engineers, 2018-date
- **Member**, Arab Integrated Water Resources Management Network (AWARENET), Beirut, Lebanon, 2017
- **Member**, International Water Association, London, UK, 2016-date
- **Voluntary Member**, Future Pioneers for Empowering Communities in Environmental and Educational Fields (FPEC), Jordan, 2018
- **Member**, International Society for Development and Sustainability, Japan, 2016-date
- **Member**, Jordanian Green Building Council, Jordan, 2017-date
- **Member**, Land and Human to Advocate Progress (LHAB), Jordan, 2015-date
- **Member**, Jordan Environment Society, 2013- date
- **Industrial Safety Manager**, OSHA-Academy, Oregon, USA, 2014
- **RSS representative**, The National Nanotechnology Initiative - NNI, Jordan, 2011
- **Member**, Clean Technologies Innovation Cluster, Jordan 2010-2012
- **RSS representative**, National Committee of Synchrotron Users, SESAME, Jordan, 2010
- **Certified Energy Manager**- In training, IAE, Jordan, 2010
- **Member**, Quartec Nano-Accelerator, Business Park, Greensborough, NC, USA, 2008
- **Member**, Project Management Institute, Jordan, 2009
- **Professional Project Manager**, IPM, 2007
- **Member**, Technology Commercialization Committee, QRCE, Jordan, 2008-2011
- **Member**, Robert C. Williams American Museum of Papermaking, USA, 2005-2006
- **Member**, Friends of Environment Society, 1997-2002
- **Member**, Jordanian Engineering Society, 1998-date

ADVISORY PANELS and EDITORIAL ACTIVITIES

- **Reviewer & Reader**, International Scientific Evaluation Panel for the Partnership for Research and Innovation in the Mediterranean Area (PRIMA), Barcelona, Spain, 2018
- **Representing Member**, Inclusive and Strategic Focus for ETC for the Coming Years, ESCWA Technology Centre (ETC), Jordan, 2017
- **Reviewer**, Social and Economic Council, Amman, Jordan, 2018
- **Auditor**, Assessment of implementation of sector budget Renewable Energy and Energy Efficiency Programme in Jordan, EuropeAid/134-941/C/SER/JO', 2015
- **Reviewer**, Entrepreneurship and Innovation Center, The University of Jordan, 2016-date
- **Reviewer & Evaluator**, Green Fund, Ministry of Environment, 2015

- **Proposals Reviewer**, Abdul Hameed Shoman Foundation Fund, 2016
- **Proposals Reviewer**, Scientific Research Fund, Ministry of Higher Education, Jordan, 2016
- **Board Member**, Prince Faisal Center for Dead Sea, Environmental and Energy Research, Mutah University, 2017-date
- **Board Member**, Water, Energy & Environment Center, The University of Jordan, 2016-date
- **Reviewer**, International R&D Clean Technologies Program, USAID, Jordan, 2010
- **Editorial Board**, Environmental Management and Sustainable Development” International Journal (ISSN 2164-7682), Macrothink Institute
- **Reviewer**, International Journal of Ecosystem (p-ISSN 2165-8889), Scientific & Academic Publishing Co.
- **Coordinator**, German- Jordanian Returning Experts Program: Funded by CIM (AGEF), 2009

WORK EXPERIENCES

- **Minister of Water and Irrigation**, Ministry of Water and Irrigation, Jordan, 2020-2021
- **Professor**, Chemical Engineering Dept, The University of Jordan, 2019- to date
- **Director**, Water, Energy & Environment Center, The University of Jordan, 2016 – 2018
- **Associate Professor**, Chemical Engineering Dept, The University of Jordan, 2015- 2019
- **Assistant Professor**, Chemical Engineering Dept, The University of Jordan, 2012- 2015
- **Executive Director**, Royal Scientific Society (RSS), Industrial Technology Cluster, Jordan, 2006-2011
- **International R&D Clean Technologies Program Manager, USAID**, RSS, Jordan, 2010-2011
- **Head**, Environmental Management Dept, Princess Sumaya University for Technology, Jordan 2007- September 2012 (Part-time)
- **Research Scientist**, Innovation and Business Park, Greensboro, North Carolina, USA July- October 2007
- **Postdoctoral Associate**, Chemical & Biomolecular Eng, Georgia Tech, Atlanta, GA, USA 2005-2006
- **3-months Post doc Associate**, German Polymer Institute DKI, Darmstadt, Germany, 2002-2005
- **Water Engineer**, Irshidat Co. for water Treatment, Amman, Jordan, 1998 - 2000

CONSULTANCIES SERVICES and ACCOMPLISHED PROJECTS

- **International Consultant**, Hazardous Chemical Management and Globally Harmonized System (GHS) in Iraq and Bahrain, UNDP, 2019-2020
- **International Expert**, Solid Waste Management Strategy under COVID-19 Pandemic in Lebanon, Lebanon, 2020
- **National Expert**. Mathematical Modeling of Coronavirus (COVID-19) outbreak estimation in clusters. National Center for Security and Crisis Management. 2020(March- to date).
- **Consultant**, USAID/Jordan Water Management Initiative (WMI) (2016-2021), Tetra Tech International, Jordan, 2019
- **Consultant**, Jordan - Third Ozone Depleting Substances and Hydrochlorofluorocarbon (HCFC) Phase-out Project, Verification Report of the Annual 2016 and 2017 HCFC Consumption, World Bank- Ministry of Environment, Jordan, 2019.
- **National Consultant**, Updated Situation Analysis of Hazardous Waste Generation, Treatment and Disposal in Jordan, GIZ, Protection of Environment and Biodiversity in Jordan II (PROTEB II). 2019.
- **Team Leader**, Baseline and options study to improve carbon footprint of Madaba Water & Wastewater Utility, GIZ, 2017

- **Start-up Entrepreneur Mentor**, Provision of technical support to analyse the e-waste sector context and to develop a positioning strategy. Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC), Barcelona, Catalunya, Spain, 2018
- **Team leader**, Design and Installation of Off-grid 1.5kw Solar Tree at the University of Jordan, French Embassy, and EU Delegation, 2018
- **Team Leader**, Design and Installation of On-site Wastewater Treatment Unit at the Institutional Building, Ishraq Company, and Water-Energy-Environment Center, 2017
- **Team Leader**, Design and Installation of Grey Water Treatment Unit at the University of Jordan, GIZ, Installation of Wastewater Treatment Plant at the University of Jordan, 2017, WEEC.
- **National Consultant**, Greater Amman Municipality (GAM) Solid Waste Project - Corporate Development and Governance Assistance, EBRD, 8 Jan- 14 Nov 2018
- **National Consultant**, Reduction and elimination of POPs and other chemical releases through implementation of environmentally sound management of E-Waste, healthcare waste and priority U-POPs release sources associated with general waste management activities. UNDP/GEF, 2016-2017
- **National Consultant**, Technical assessment of financing of the Jordan Magnesia Company Ltd. (JorMag), EBRD, 3 Apr- 31 May 2017
- **Training Consultant**, Introduction to Solid Waste Management, Jordanian Green Building Council, USAID, GIZ, 2016-2018 (4X3-day training sessions)
- **Consultant**, Advice to refugees hosting communities in the waste management, Jordan, GIZ Jordan, GreenPlans for Environmental Consultations Ltd. , 2015
- **Consultant**, Improving Solid Waste Management and Income Creation in Host Communities-Rehabilitation of Al-Akedir Landfill, UNDP, GreenPlans for Environmental Consultations Ltd. , 2015
- **Consultant**, Desk Research and Feasibility Study of MSW recycling project at Za'atri Syrian Refugees Camp, Mafraq, Jordan, Oxfam Organization, GreenPlans for Environmental Consultations Ltd. , 2015
- **Environmental Economist**, Deir Alla Landfill Rehabilitation Feasibility Study, Al Mostaqbal Engineering & Environmental Consultants, 2014-2015
- **Principal Investigator**, Feasibility Analysis of Rainwater Harvesting Systems in Urban Areas in Jordan, 2015
- **Expert**, IRADA National Program of the Enhanced Economic and Social Productivity Program at Ministry of Planning and International Cooperation (MOPIC). IRADA has a significant importance of impacts on both individuals and local community through inducement on initiative and increasing awareness on the proceeding production and provide the opportunity for investment in small and medium enterprises that aim to improve their livelihood and income, consequently raise the investment culture level in the community and explore investment opportunities within available resources and lead to establish enterprises and develop individuals skills to access labor market. Ministry of Planning and International Cooperation, Jordan, 2011-2012
- **Environmental Economist & P2 Expert**, Financial Analysis of Pollution Prevention and Cleaner Production in Chlor-Alkali Industries, GreenTech Inspiring Environment, 2012
- **Environmental Economist& P2 Expert**, Financial Analysis of Pollution Prevention and Cleaner Production in Food Industries, GreenTech Inspiring Environment, 2013
- **Environmental Economist& P2 Expert**, Financial Analysis of Pollution Prevention and Cleaner Production in Plastic Industries, GreenTech Inspiring Environment, 2014
- **Environmental Economist& P2 Expert**, Financial Analysis of Pollution Prevention and Cleaner Production in Fertilizers Industries, GreenTech Inspiring Environment, 2014
- **Environmental Economist& P2 Expert**, Feasibility Assessment of Biogas Production from Organic Waste in Northern Part of Jordan, GreenPlans for Environmental Consultations, 2015
- **Environmental Economist& P2 Expert**, Financial Assessment of Local Solid Waste Master Plans for the Municipalities of Irbid, Mafraq, and Al Ramtha., GreenPlans for Environmental Consultations, 2015

- **Principal Investigator**, Meso Environmental Economics Indicators Analysis of Cement Industries in Jordan, 2011, (RSS, PSUT-Jordan), (SBA, & Ecosys- Switzerland) Environmental Economist & Corresponding Researcher
- **Research Project Supervisor**, Integrated Municipal Solid Waste Management, Cost Benefit Analysis for Recycling Program in Greater Amman Municipality (GAM), 2010, PSUT
- **Research Project Supervisor**, Linking Water Loss from Supply Water Networks to CO₂ Emission, PSUT, 2012
- **Environmental Economist & Corresponding Researcher**, Financial Assessment of Phosphorous Struvites Recovery from Al Samara WasteWater Treatment Plant, 2011, RSS, Amman, Jordan
- **Industrial Pollution Prevention Specialist**, "Water Reuse and Environmental Conservation project (RIAL II)" in Jordan, , USAID-funded project, AECOM, and GreenTech Inspiring Environment, July 2012
- **Project Manager**, International Energy, Environment, Water Clean Technology Research & Development Project: Funded by USAID, 2010-2011
- **Active Member**, Preparation of Jordanian Green Building Guideline, 2010
- **Project Coordinator**, Environmental Management & Technology, International Swiss-Jordanian Master Program, 2008
- **Consultant**, Soil Testing and Contamination Analysis at Queen Alia Airport, 2010 Best Solutions for Storm Water Pollution Prevention at Queen Alia Airport, 2011
- **Team Leader**, Sustainable Energy Mix and Policy Framework for Jordan project: Funded by Friedrich Ebert Stiftung (FES), 2010
- **Principal Investigator**, Jordan Energy Status: Post-Fukushima & Arab Spring: Funded by Friedrich Ebert Stiftung (FES), 2011
- **Principal Investigator**, Application of self-healing polymer in paint industries, RSS, SRTD-EU program, 2009-2010
- **Principal Investigator**, Development of Jordanian Cost-Effective Nano Paints with Enhanced Properties, Higher Council for Science & Technology (HCST), RSS, 2008-2010
- **Co-researcher**, Production of Hydrogen From Sea Water Using Solar Energy and Fuel Cell, RSS, SRF, Ministry of Higher Education, 2009-2012
- **Principal Investigator**, Optimization of Jordanian Oil Shale Combustion System, The University of Jordan, 1998

PUBLICATIONS

1. AlDayyat, Ebtihal A., **Motasem N. Saidan**, Zayed Al-Hamamre, Mohammad Al-Addous, and Malek Alkasrawi. 2021. "Pyrolysis of Solid Waste for Bio-Oil and Char Production in Refugees' Camp: A Case Study" *Energies* 14, no. 13: 3861. <https://doi.org/10.3390/en14133861>
2. Hamdan, S., Saidan, M.N. Estimation of E-waste Generation, Residential Behavior, and Disposal Practices from Major Governorates in Jordan. *Environmental Management* **66**, 884–898 (2020). <https://doi.org/10.1007/s00267-020-01341-1>
- 3.
4. Kheirallah, Khalid A., Belal Alsinglawi, Abdallah Alzoubi, **Motasem N. Saidan**, Omar Mubin, Mohammed S. Alorjani, and Fawaz Mzayek. 2020. "The Effect of Strict State Measures on the Epidemiologic Curve of COVID-19 Infection in the Context of a Developing Country: A Simulation from Jordan" *International Journal of Environmental Research and Public Health* 17, no. 18: 6530. <https://doi.org/10.3390/ijerph17186530>
5. **Motasem N. Saidan**, Mohammad A. Shbool, Omar Suleiman Arabeyyat, Sameh T Al-Shihabi, Yousef Al Abdallat, Mahmoud A. Barghash, and Hakam Saidan. 2020. Estimation of the probable outbreak size of novel coronavirus (COVID-19) in social gathering events and industrial activities. *International Journal of Infectious Diseases*. DOI: 10.1016/j.ijid.2020.06.105

6. Ahlam I. Abdalla, **Motasem N. Saidan**, Nivin Al Alami, Hanan Al-Naimat. 2020 Comparative assessment of Legionella pneumophila prevalence among hospitals and hotels water systems. *Desalination and Water Treatment*. 193:432-441
7. **Motasem N Saidan**. 2020. Estimation of industrial water demand and reclamation in Jordan: A cross-sectional analysis. *Water Resources and Industry*. 23: 100129
8. **Motasem N. Saidan**, Ammar Abu Drais, Ehab Al-Manaseer. 2020. Opportunities of 'Waste to (positive) Energy' project in refugees-hosting communities. *Waste and Resource Management* <https://doi.org/10.1680/jwarm.20.00002>
9. **Motasem N. Saidan**, Mohammad Al-Addous, Radwan A. Al-Weshah, Ibrahim Obada, Malek Alkasrawi, and Nesrine Barbana. Wastewater Reclamation in Major Jordanian Industries: A Viable Component of a Circular Economy, *Water*, 2020, 12, 1276, 1-19.
10. **Motasem Saidan**, Ammar Abu Drais, Ehab Al-Manaseer, Murad Alshishani, Colette Linton. Scale and Impacts of Livelihoods Development on Women Empowerment in the Solid Waste Sector of Jordan. *Detritus*, 2020, <https://doi.org/10.31025/2611-4135/2020.13943>
11. Mohammad Al-Addous, **Motasem Saidan**, Mathhar Bdour, Zakariya Dalalah, Aiman Albatayneh, Christina B. Class. Key aspects and feasibility assessment of a proposed wind farm in Jordan. *International Journal of Low-Carbon Technologies*, 15, 2020, 97-105. Oxford University Press
12. T Salameh, M Tawalbeh, M Al-Shannag, **M Saidan**, K Bani Melhem, M Alkasrawi. Energy Saving in the Process of Bioethanol Production from Renewable Paper Mill Sludge. *Energy*, 2020, 196, 117085, <https://doi.org/10.1016/j.energy.2020.117085>
13. **MN Saidan**, H Khasawneh et al. Baseline carbon emission assessment in water utilities in Jordan using ECAM tool. *Journal of Water Supply: Research and Technology-Aqua*. 2019. DOI: 10.2166/aqua.2019.040
14. Safwat Hemidat, **Motasem Saidan**, Salam Al-Zu'bi, Mahmoud Irshidat, Abdallah Nassour, Michael Nelles. 2019. Potential Utilization of RDF as an Alternative Fuel to be Used in Cement Industry in Jordan. *Sustainability*. 11,20, 5819.
15. **Motasem N. Saidan**, Ahlam I. Abdalla, Nivin Al Alami, Hanan Al-Naimat . Multiple disinfection processes of Legionella pneumophila positive in hotels' water distribution systems in Jordan. *Desalination and Water Treatment*. 2019, 163, 7-16.
16. **MN Saidan**, AA Drais, C Linton, S Hamdan. Solid waste characterization and recycling in Syrian refugees hosting communities in Jordan. 2020. *Waste Management in MENA Regions*. 281-293. Springer, Cham.
17. Motasem Bani Mustafa, Hussam Khasawneh, Ahmed Al-Salaymeh, **Motasem Saidan**. Techno-Economic Evaluation of On-Grid Battery Energy Storage System in Jordan using Homer Pro. AEIT2019: Automation, electricity, information and communication technologies. 8/11/2019.
18. **M. Saidan**. 2019. Cross-sectional survey of non-hazardous waste composition and quantities in industrial sector and potential recycling in Jordan. *Environmental Nanotechnology, Monitoring & Management*. 12, 100227.
19. H Khasawneh, **M Saidan**, M Al-Addous. 2019. Utilization of hydrogen as clean energy resource in chlor-alkali process. *Energy Exploration & Exploitation* (first online). DOI: 10.1177/0144598719839767
20. Al-Addous M, **MN Saidan**, M Bdour, M Alnaief. 2019. Evaluation of biogas production from co-digestion of municipal food waste and wastewater sludge at refugees camp using automated methane potential test system. *Energies*, 12, 1.
21. G Jabr, **M Saidan**, N Al-Hmoud. 2019. Phosphorus Recovery by Struvite Formation from Al Samra Municipal Wastewater Treatment Plant in Jordan. *Desalination and Water Treatment*, 146: 315-325. doi: 10.5004/dwt.2019.23608.
22. H Aboelnga, **M Saidan**, R Al-Weshah, M Sturm, L Ribbe, FB Frechen. 2018, Component analysis for optimal leakage management in Madaba, Jordan. *Journal of Water Supply: Research and Technology-Aqua* 67 (4), 384-396
23. K. Alrabie, **Motasem N. Saidan**. 2018, A preliminary solar-hydrogen system for Jordan: Impacts assessment and scenarios analysis. *International Journal of Hydrogen Energy*. <https://doi.org/10.1016/j.ijhydene.2018.03.218>
24. **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

25. **Motasem N. Saidan**, Haifa Al-Yazjeen, Ahlam Abdalla, Hussam J. Khasawneh, Hanan Al-Naimat, Nivin Al Alami, Malik Adawy, Mahmoud S. Jaber, Nidal Sowan. 2018, Assessment of On-Site Treatment Process of Institutional Building's Wastewater. *Processes* 6 (4), 1-13
26. Tareq K. Al- Awad, **Motasem N. Saidan**, Brian J. Gareau. 2018, Halon management and ozone-depleting substances control in Jordan. *International Environmental Agreements: Politics, Law and Economics* 18(3): 391–408
27. Muna Hindiyeh, Tala Altalafha, Manar Al-Naerat, Hakam Saidan, Ahmed Al-Salaymeh, Lu'ay Sbeinati, **Motasem Saidan**. 2018, Process Modification of Pharmaceutical Tablet Manufacturing Operations: An Eco-Efficiency Approach. *Processes* 6 (2), 1-8
28. **Motasem Saidan**, Khaled Rawajfeh, Sahar Nasrallah, SÜREYYA Meric, Ahmad Mashal. 2018, Evaluation of Factors Affecting Bulk Chlorine Decay Kinetics for the Zai Water Supply system in Jordan: Case Study. *Environment Protection Engineering* 43 (4), 223-231
29. Zayed Al-Hamamre, **Motasem Saidan**, 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
30. **MN Saidan**, S Meric, K Rawajfeh, RA Al-Weshah, SF Al-Zu'bi. 2018, Effect of bromide and other factors on brominated trihalomethanes formation in treated water supply in Jordan, *Desalination and Water Treatment* 57(33), 15304-15313
31. **Motasem N. Saidan**, Ammar Abu Draiss, Ehab Al-Manaseer. 2017. Solid Waste Composition Analysis and Recycling Evaluation: Zaatari Syrian Refugees Camp, Jordan. *Waste Management*, 61:58–66
32. **Motasem Saidan**, Abdul Ghani Albaali, Emil Alasis, John K. Kaldellis. Experimental Study on the Effect of Dust Deposition on Solar Photovoltaic Panels in Desert Environment, *Renewable Energy*, 2016, 92, 499-505.
33. **Motasem N. Saidan**, Linah M. Ansour, Hakam Saidan. 2017. Management of Plastic Bags Waste: An Assessment of Scenarios in Jordan. *Journal of Chemical Technology and Metallurgy*, 52, 1: 148-154.
34. Muhanned A Hararah, **Motasem N Saidan**, Ahmad M Abu-Jrai, Zayed Alhamamre, Jihad Alsawair, Raed A Damra. The PCDD/PCDF Emission Inventory in Aqaba: Aqaba City. *Journal of Chemical Technology and Metallurgy*, 2016, 51 (1), 112-120
35. **Motasem N. Saidan**, Süreyya Meric, Khaled Rawajfeh, Radwan A. Al-Weshah, Salam F. Al-Zu'bi, Brominated Trihalomethanes Formation in Drinking Water: Effect of bromide ions and other factors, *Desalination & Water Treatment*, 2016, 57:33, 15304-15313
36. Radwan Al-Weshah, **Motasem Saidan**, Abbas Al-Omari, Environmental Ethics as a Tool for Sustainable Water Resources Management, *Journal American Water Works Association*, 2016, 108 (3):175-181
37. **Motasem N. Saidan**, Radwan A. Al-Weshah, and Ibrahim Obada, Potential Rainwater Harvesting: Adaptation Measure for Urban Areas in Jordan, *Journal American Water Works Association* 2015, 107(11):594-602
38. **Motasem SAIDAN**, Adnan TARAWNEH, Estimation of Potential E-waste Generation in Jordan, *Ekoloji*, 2015, 24 (97), 60-64.
39. **Motasem Saidan**, Improvement of Linerboard Compressive Strength by Hot-pressing and Addition of Recovered Lignin from spent Pulping Liquor, *Chemical Industry & Chemical Engineering Quarterly*, 2015, 21(1):107-112
40. **Motasem Saidan**, Khaled Rawajfeh, Manar Fayyad, Determination of Trihalomethanes Levels in a Selected Area of Amman's Drinking Water Distribution System: Case Study, submitted to *Desalination & Water Treatment*, (2015) 54:3, 642-653
41. Khaled Rawajfeh, Thamar Al-Hunaidi, **Motasem Saidan**, Zayed Al-Hamamre (2014) Upgrading of Commercial Potassium Chloride by Crystallization: Study of Parameters affecting the Process, *Life Science Journal*, 2014; 11(6s), 8-15
42. Khaled Rawajfeh, Thamar Al-Hunaidi, Zayed Al-Hamamre, **Motasem Saidan** (2014) The Activity Coefficients and Equilibrium Constants of Commercial Potash at Temperature From 25 to 70°C, *Life Science Journal* , 2014;11(3), 166-172

43. Farqad Saeed, **Motasem Saidan**, Adi Said, Mahmoud Mustafa, Amani Abdelhadi, Sarah Al-Weissi, (2013) "Effect of flow rate, flow direction, and silica addition on the performance of membrane and the corrosion behavior of Pt–Ru/C catalyst in PEMFC", *Energy Conversion and Management* 75: 36–43
44. **Motasem Saidan**, Khaled Rawajfeh, Manar Fayyad, Investigation of Factors Affecting THMs Formation in Drinking Water, *American Journal of Environmental Engineering*, 2013; 3(5): 207-212
45. **Motasem N. Saidan**, Improvement of Linerboard's Strength by Heat Treatment, *International Journal of Materials Engineering*, 2013; 3(5): 93-96
46. Adnan Tarawneh, **Motasem Saidan**, Households Awareness, Behaviors, and Willingness to Participate in E-waste Management in Jordan, *International Journal of Ecosystem*, 2013; 3(5): 124-131
47. Khaled Rawajfeh, A. Ghani Albaali, **Motasem Saidan**, Salah Abureden, Modeling of Natural Convection Heating and Biochemical Changes in a Viscous Liquid Canned Food Using Computational Fluid Dynamics, *International Journal of Food Science and Nutrition Engineering*, Vol. 3 No. 4, 2013, pp. 71-79.
48. Abdul Ghani Albaali, Rita Haddad, **Motasem Saidan**, Majid Zeki Hameed, Carbon Footprint of Royal Jordanian Airlines Ground and Air Operations, *Journal of Public Administration and Governance*, 2012, Vol. 2, No. 4
49. **M. Saidan**, B. Al Hayek, N. Al Hmoud, D. Maradan, K. Zein "Environmental Meso-Economics in University Curriculum: New Master Program in Environmental Technology and Management", *Clean Technologies and Environmental Policy*, 2010, 13(1):191-194,
50. Bradley H. Hartong, M Abu-Daabes, Tuan Le, **Motasem Saidan**, and Sujit Banerjee "Sludge Dewatering with Cyclodextrins" *Water Research*, 2007 41(6):1201-1206.

➤ **Books and chapters:**

1. **Saidan M.N.**, Al-Weshah R.A., Masa'deh R., Saidan H., Kheirallah K.A. (2021) COVID-19 Outbreak in Jordan: A 150 Days of Successful Response and Re-Open Strategy. In: Alshurideh M., Hassanien A.E., Masa'deh R. (eds) *The Effect of Coronavirus Disease (COVID-19) on Business Intelligence. Studies in Systems, Decision and Control*, vol 334. Springer, Cham. https://doi.org/10.1007/978-3-030-67151-8_5
2. Safwat Hemidat, **Motasem Saidan**, Abdallah Nassour, Michael Nelles. Study and Assessment of Segregated Bio-waste Composting. Wissenschaftskongress Abfall- und Ressourcenwirtschaft. Deutschen Gesellschaft für Abfallwirtschaft e.V. (DGAW); Innsbruck University press, Universtat Innsbruck. March 2019, 171-177
3. S. Hemidat, M. Saidan, A. Nassour, M Nelles. 2019. Comprehensive Assessment of Segregated Bio-waste Composting: The case of Syrian Refugees Hosting Communities in Northern Jordan. 13. Rostocker Bioenergieforums (ISBN 978-3-86009-487-7). 87: 337-351. Der Universität Rostock.
4. **Saidan MN**, Abu Drais A, Linton C and Hamdan S. Solid Waste Characterization and Recycling in Syrian Refugees Hosting Communities in Jordan, Negm AM and Noama E (eds.), *Waste Management in MENA Regions, Earth and Environmental Sciences Series, Applied Environmental Science and Engineering for a Sustainable Future*, Springer International Publishing AG, part of Springer Nature, 2019.
5. **Saidan MN**, Abu Drais A and Linton C. Scale and Impacts of Livelihoods Development on Women Empowerment in the Solid Waste Sector of Jordan. Saleh HE. *Municipal Solid Waste Management*. IntechOpen, London, United Kingdom, 2019, (Accepted).
6. Jordan GBC, **Motasem Saidan**, Ammar Abu Drais, Islam Daoud. *Official Guide to Waste Management in Jordan*. Jordan Green Building Council. ISBN: 978-9957-8751-0-7

7. **Motasem Saidan**, Sustainable Energy Mix and Policy Framework for Jordan, 2011, ISBN: 978-9957-484-16-3 ردمك
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TRAININGS COURSES, CONFERENCES & WORKSHOPS

1. RefUse Workshop: Working with refugees to use resources more sustainably, University of York, GCRF IAA Impact Development Fund. 4-7 March 2019, Amman, Jordan
2. Trainer, Solid Waste Management Training Course tailored for OXFAM organization, Jordanian Green Building Council, OXFAM, 18-21 Feb 2019.
3. M Saidan, German Universities Cooperation with Jordanian Universities in frame of Supporting Refugees Hosting Communities in Sector of Waste Management, GIZ, Madaba, Jordan, 4-6 December, 2018
4. M Saidan, Management of plastic waste in Jordan: potential & scenarios. Workshop: Implications of Plastic and Solid Waste on our Cities & Oceans titled "More Plastic than Fish in our Oceans?", Heinrich-Böll-Stiftung Palestine & Jordan (hbs), Aqaba, Jordan, 6- 9 November, 2018
5. RETech workshop on waste management and recycling in MENA countries, Cyclos, Germany, 17 October, 2018
6. Preparation for the implementation and financing of Extended Producer Responsibility (EPR) for packaging in Jordan within the framework of the environmental technologies export initiatives. Technical Visit. Koln, Germany, 14-19 October, 2018
7. Waste Collection: Fleet management and maintenances, and disposal logistics. Technical Visit., INFA, Koln, Berlin, Germany, 23/6-1/7 2018
8. S. Hemidat, M. Saidan, A. Nassour, M. Nelles. 2018. Potential of RDF production as alternative fuel for cement industries in Jordan. NAXOS 2018, Naxos Island, Greece. 13-16 June 2018
9. S. Hemidat, M. Saidan, A. Nassour, M. Nelles. 2018. Study and Assessment of Segregated Bio-waste Composting: The Case Study of Jordan. NAXOS 2018, Naxos Island, Greece. 13-16 June 2018
10. Implementation and financing an EPR system for sustainable solid waste management in Jordan Workshop. Amman, Jordan, 24 April 2018
11. Mercury and mercury compounds: Results of mercury initial assessment in Jordan, 23 April 2018, UNDP, Amman, Jordan
12. Impacts of Water Shortage on Jordanian National and Comprehensive Security. USA- Jordan: National Center for Security & Crisis Management. Amman, Jordan, 18-19 March 2018
13. Maintaining and improving the performance of the fleet of waste vehicles in Greater Zarqa Municipality Workshop. Zarqa, Jordan, 20 March 2018
14. International Symposium of the German-Arab Transformation Partnership: Salinity in Transformation. TU Berlin, DAAD. Hammamet, Tunisia. 28/10- 7/11 2017
15. Science Forum 2017 Jordan, Dead Sea, Jordan, 7-11 November 2017
16. Technical Meeting with Business Delegation of German Companies in the waste/recycling sector, GIZ, Amman, Jordan, 17 September 2017
17. Waste-to-energy: Assessment & solutions for vulnerable communities, CNRD-DAAD, UNDP, 3-5 July 2017, Amman, Jordan
18. Youth Innovating with Wastewater for a Sustainable Mediterranean Workshop, World Youth Parliament for Water. Center for Mediterranean Integration. The World Bank - Marseille Office. France, 21-22 March 2017
19. M Saidan. 4th Arab Water Week conference and exhibition, ACWUA, Dead Sea, Jordan, 19-23 March, 2017.
20. ECAM and Hydraulic modeling training. The Water and Wastewater Companies for Climate Mitigation (WaCCliM) Project- Jordan. GIZ, IWA, Amman, Jordan, 23-26 Jan 2017
21. German-Arab Masters Programmes (GAMP) Network Strategy Meeting: Integrated Water Resources Management (IWRM). GIZ, Berlin, Germany, November 19-21 2016
22. Solid waste management: waste to energy and utilization symposium, 12 December 2015, Jordanian Engineers Association, Amman, Jordan

23. Renewable energy and energy efficiency, 24 October 2015, Jordanian Engineers Association, Amman, Jordan
24. Jordan Chemical Security and Emergency Preparedness Training, CRDF Global, U.S. Department of State Chemical security Program (CSP), National Center for Biomedical Research and Training (NCBRT), Louisiana State University, 23-27 August 2015
25. Motasem Saidan, Jordan Chemical Security and Emergency Planning Workshop, CRDF Global, Aug 23-27, 2015, Amman, Jordan
26. Motasem Saidan, POPs Inventory Validation and priority setting workshop, Ministry of Environment, 5-7 March 2015, Dead Sea, Jordan
27. Motasem Saidan, Monitoring, Analytical and Enforcement Capacities for New POPs Including Update on Original POPs, Ministry of Environment, 9 Feb 2015, Amman, Jordan
28. Motasem Saidan, Inventory Assessment of POP-BDEs in Jordan: in the Transport Sector, Ministry of Environment, 9 Feb 2015, Amman, Jordan
29. Motasem Saidan, Biodegradable Plastic Bags as a Solution for Plastic Bags littering in Jordan, Ministry of Environment, 22 October 2014, Amman, Jordan
30. Motasem Saidan, Drinking Water Treatment Stations: Maintenance and Troubleshooting, 26-27 November 2014, IRADA Program, Jerash, Jordan
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32. Motasem Saidan, Exothermic Materials: Flameless Ration Heater for MRE, The 10th Special Operations Forces Exhibition & Conference, (KADDB R&D Section) Amman, Jordan, 6-8 May 2014
33. Motasem Saidan, Khaled Rawajfeh , Manar Fayyad, Investigation of Factors Affecting THMs Formation in Drinking Water, The Sixth Jordanian International Chemical Engineering Conference (JICheC06), Jordan, 12-14 March 2012
34. Motasem Saidan, Sustainable Energy Mix and Policy Framework for Jordan, Intelligent Cities: Future Strategies for Sustainable Energy Policies in the Middle East and North Africa Conference, 2 and 3 April 2012
35. A. Ghani Albaali and M. Saidan, Modeling of Natural Convection Heating and Biochemical Changes in a Viscous Liquid Canned Food using Computational Fluid Dynamics, 2010, 2nd International Chemical Engineering Conference, University of Jordan, Jordan
36. A. Ghani Albaali and M. Saidan, Using the Computational Fluid Dynamics to Analyze Heat Transfer during High-Pressure Processing of Liquid Food, 2010, 2nd International Chemical Engineering Conference, University of Jordan, Jordan
37. Brian Sulaiman and Motasem Saidan, Nanotechnology in Jordanian Industries: Paints Industries, 14th Jordan Science Week: Science & Technology for Sustainable Development, 6-10 May 2009, Jordan, Amman.
38. Motasem Saidan, MESO Environmental Economics: Identifying Future Needs!, MESO Environmental Economics Symposium, Syria, 17-19 June 2008.
39. Motasem Saidan and Thorsten Alts, Deformation Induced Crystallization in Vulcanized Rubbers, The 40th International Symposium on Macromolecules (IUPAC-MACRO 2004), France, Paris