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Personal Information

- Nationality: German
- Date of birth: November 16, 1958
- Civil Status: Married
- Country of Residence: Palestine

Qualifications/Education

Academic Institution (from – to)	Degrees obtained/Expertise
Technical University of Braunschweig, Germany (1983-1987)	Dr.-Eng., Sanitary & Environmental Engineering
The University of Jordan, Amman, Jordan (1981-1983)	M.Sc., Environmental Microbiology
The University of Jordan, Amman, Jordan (1977-1981)	B.Sc., Biology, Studies of Biological Sciences

Professional Academic/Administrative & Practical Experiences

August 2021 to present	Professor, IEWS, BZU, Ramallah, Palestine
August 2016 to July 2021	Professor and Director, IEWS, BZU, Ramallah, Palestine
August 2005-July 2016	Associate Professor, Chair MSc Programs, IEWS, BZU, Ramallah, Palestine
September 1997-July 2005	Assistant Professor, Project Coordinator, IEWS, BZU, Ramallah, Palestine
August 1988-June 1990	Research Fellow, TU Braunschweig, Braunschweig, Germany
October 1983-October 1987	PhD student, TU Braunschweig, Braunschweig, Germany
August 1981-September 1983	Research assistant, Jordan University, Amman, Jordan

Practical Experience

August 1996-August 1997	Minister Adviser, Palestinian Water Authority, Ramallah, West Bank, Palestine
Feb. 1995-July 1996	Acquisition Manager, ACERPLAN GmbH, Halle-Saale, Saxony-Anhalt, Germany
July 1990-January 1995	Vice CEO Ingenieurbüro Dr. Sonnenburg, Hungen, Gießen, Hesse, Germany
August 1981-October 1983	Sales Man, Qattan Medical Science, Amman, Jordan

Language skills: (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
English	1	1	1
German	1	1	2
Arabic	native	native	native

Professional Membership and Services

- Jordan Engineering Association, Jerusalem Branch, Palestine
- German Engineers Association (VDI), Bonn, Germany
- Editorial Board Membership: Desalination & Water Treatment (e.g.)
- Palestinian Green Building Council (PGBC), Al-Bireh/Ramallah, West Bank, Palestine
- German Association for Water & Waste Management (DWV), Hennef, North Rhine-Westphalia, Germany
- German Alumni Water Network (GAWN), Siegen, Germany.
- UNICEF's water, sanitation and hygiene (WASH), local team member
- Palestinian Water Authority (PWA), EIA and Joint Water Sub-Technical Committees, Palestine
- Palestinian Water Academic Advisory Board (PWAB), An Najah National University, Nablus, Palestine
- Environmental Quality Authority (EQA); Committee "National Solid Waste Management Strategy"
- MED-REUNET/Mediterranean Network on Wastewater Reclamation and Reuse, Spain
- Palestinian Institute for Standards (PSI); Committee "Water & Wastewater Rules & Regulations]"
- Accredited Environmental Arbitrator, member, Palestinian Ministry of Interior, Palestine.

Other skills (e.g. Computer literacy, etc.)

- WWTP design programs: ASIM modelling, DENNI, ANAWin, Aqua Designer, Aqua Aero, POND, SANIX, WAWTTAR, SimaPro for LCA and Cleaner Production for WWTPs
- Water and Environmental software: AquaChem Groundwater Quality Modelling, EPA HELP Hydrologic Evaluation of Landfill Performance, EPA SCREEN Air Quality Dispersion Modelling;
- Text processing programs: Windows, M.S. Office Package
- Strong didactic skills: ELearning platforms and tools [Moodle, BBB, Zoom, Teams, etc.]
- Able to manage intricate situations under tight schedules with a logic rationality
- Work under stress conditions and lead as a team player

Present position/Rank: Senior Instructor/Full Professor *[former Institute Director and M.Sc. Programs Head]*

Years within the firm: Since September 1997 to present

Research interests and experiences (Key qualifications relevant to the assignment)

- Excellent experience in teaching and research in 4 M.Sc. programs, courses in advanced water treatment and wastewater engineering, BNR, and eco-sanitation. ISWM covering municipal solid waste and sewage sludge, bioeconomy including bioenergy, biosolids (stabilized sludge) and reclaimed water recycling. Water quality and environmental modelling, pollution prevention, environmental biotechnology, IWRM, desalination & water reuse, membrane processes (MBR, SBR, MBBR, IFAS and RO). Climate change adaptation, water-energy-food nexus, conflict resolution, ecological & environmental ethics, transboundary WW management, CP and bioremediation, EIA and SEA studies, strategic planning of municipal infrastructures, courses development, capacity building and public awareness programs.
- Extensive practical experience in engineering process layout, design and simulation for water, sanitation, and solid waste, process monitoring and evaluation, centralized and Eco San systems, MBR systems for municipal and industrial wastewater treatment and water recycling. LCA, resource and ecosystem services, climate change and environmental ethics, CP, sludge co-composting and recycling, sanitary landfill design, feasibility, EIA and SEA studies, municipal developmental strategies, beneficial use of biomass, biosolids and reclaimed, lab testing and data analysis for water and waste samples.
- Solid expertise in project management regards human relations and communication skills, more than 40 years of progressively professional experience in water and environmental fields with emphasis on project management, evaluation and EIA studies, capacity building in water, sanitation and waste, WASH practices and management of water and sanitation facilities, strategic, technical advice and community services.
- International business development, networking and cooperation in Jordan, Germany, Egypt, Tunisia, The Netherlands, Gulf states, USA and Palestine, appraisal, development and R&D proposals writing, feasibility studies and fund raising for education, health hazards environmental costs assessment, training, building capacity, video conference facilitation, translation, preparation of tender documents and reports writing.
- Technical advisor for national authorities and international agencies on strategic planning, training and feasibility studies for water, solid and hazardous waste and wastewater management, HRD, national strategies for wastewater and biosolids management, and environmental, health and socio-economic studies of treated water and stabilized biosolids in agricultural sector. Active memberships in national committees, regional and international agencies, networking with stakeholders working in the fields of water, sanitation, municipal solid and hazardous waste, hygiene and environmental sectors.

Specific Regional Experience

Country	From - To
Palestine	1996 to present
Netherlands	1997-2018
Germany	1983-1996
Jordan	1981-1983

Awards, Prizes and Honours

1. Membership in the *Editorial Board* of Journal Desalination and Water Treatment

2. *DAAD scholarship* for the PhD degree, Bonn, Germany
3. *Scholarship* for the BSc degree, Jordanian Ministry for Education, Amman, Jordan
4. *Scholarship* for the MSc degree, Dean of Research and Graduate Studies, Jordan University, Amman, Jordan
5. *Founding member* of the Institute of Environmental and Water Studies, Birzeit University, Palestine
6. *Founding member* of Global Environmental Services, GES), private company, Ramallah, Palestine
7. *Excellence in Research Award for the year 2015-2016, Birzeit University, Birzeit, Palestine*
8. *Chair* for the MSc programs in water and environmental science and engineering, Birzeit University
9. *Chair* for the IEWS council, Institute of Environmental and Water Studies, Birzeit University, Palestine
10. *Member* in the Academic Council, Birzeit University, Ramallah, Palestine
11. *Chair* for the EIA study for Hot Blend Asphalt Factory, Presidential Committee, Birzeit University, Palestine
12. *Committee Development Chair* PhD Program in Environmental Engineering & Water Technology, Palestine
13. *Panel Coordinator*, International Conference on Water, UPWSP, Ramallah, Palestine
14. *Organizer* workshops, national conferences on water, sanitation and solid waste management, Palestine
15. *Panel Chair*, Kalmar ECO-TECH´ 03 Conference: Bioremediation and Leachate Treatment, Sweden
16. *Panel Chair, Kalmar ECO-TECH´ 07 Conference: Bioremediation and Leachate Treatment, Sweden*
17. *National focal point*, WASH Program, UNESCO, Palestinian Water Authority, Ramallah, Palestine
18. *Mentor* for 3 PhD students, University of Delft, and Wageningen University and Research, The Netherlands
19. *Mentor* for a PhD student, University of Cincinnati, Cincinnati, USA
20. *MSc thesis examiner*, Institute of Water and Environment, An Najah National University, Nablus, Palestine
21. *MSc thesis works examiner*, College of Pharmacy, Al Quds University, Jerusalem, Palestine
22. *Evaluation Committee Member*, PhD Program in Water Engineering, Ministry of Higher Education, Palestine
23. *Committee Member*, BSc Program in Environmental Engineering, Birzeit University, Palestine
24. *Visiting Professor*, DAAD fellowship, TU Braunschweig, Braunschweig, Germany
25. *Visiting Professor*, DAAD fellowship, TUHH, Hamburg-Harburg, Germany
26. *Visiting Professor*, IHE Delft Institute for Water Education, Delft, The Netherlands
27. *Visiting Professor*, Delft University of Technology (TU Delft), Delft, The Netherlands
28. *Visiting Professor*, Lund University, Lund, Sweden
29. *Visiting Professor*, Linnaeus University, Kalmar, Sweden
30. *Visiting Professor*, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria
31. *Visiting Professor*, USEPA, Environmental Protection Agency, USA
32. *Guest editor* for a special issue in the International Journal of Environmental Studies, 68(4), 2011, TF, UK.

Courses Taught [From 1997 to present]

MSc Level

1. WEEN6340 Environmental Processes
2. WEEN6350 Wastewater Treatment and Effluent Reuse
3. WEEN6380 Solid Waste Management
4. WEEN6390 Environmental Impact Analysis [EIA]
5. WEEN7310 Advanced Wastewater Treatment
6. WEEN7340 Integrated Water and Land Management (IWRM)
7. WEEN7350 Environmental Pollution
8. WESC7200 Bioremediation
9. WEEN7180 Research Methods
10. WEEN8300 Research Seminar I; 11) WEEN8310 Research Seminar II; 12) WEEN8600 Thesis

BSc Level

1. GENE2310 Environment and Society
2. GENGE232 Water Sanitation and Hygiene (WASH); *Online Course under development*
3. GENG2200 Environmental Management for Sustainable Development
4. ENCE5200 Introduction to Graduation Project [first level] and
5. ENCCE5300 Graduation project [second level]

External Funding: 2000-2022 [approximately €10 Million in research projects, education & consultancy]

For more details, please refer to the list of granted research and development projects [next pages]

Research Grants and Professional Experience

Date from – Date to	Location	Company& reference person (name & contact details up to 2021)	Position	Title and Description of Research Grants & Consultancy Projects
July 2021 to 2022	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Louds Habash E: VP.COMMUNITY@birzeit.edu	Project Coordinator/Main applicant	Online Course Development "Water, Sanitation and Hygiene (WASH) for Development" Main project features: Developing and offering an online course on "WASH for Development" is the main goal of this project proposal. Birzeit University (BZU), with committed experienced staff with support from IHE Delft, builds on past capacity building projects and its sustainable strategic partnership with IHE Delft. The e-course will target BSc students, and professionals in the water and sanitation sectors. Activities Performed: Develop diverse modules for a new online WASH course, provide state-of-art knowledge and help transfer practical experience to BSc graduates, equipping them in job seeking; follow-up prospective graduate studies, and upgrade their expertise in the field of WASH services, both under normal and emergency events. Envisaged is developing an accredited online course to offer free worldwide. Build, collaborate and promote a joint platform (MOODLE) that brings together the IHE Delft and Birzeit University, among the best from Europe and Middle East, develop ELearning materials and create an e-course for everyone, everywhere in the world. Hosted and owned by BZU, the online WASH course entails 3-credit hour's workload (equivalent to 7 ECU) and for sixteen (16) weeks (one academic semester). The modules integrate research results into learning materials, video showcases, articles and course evaluation tools. Funding Agency/Amount: Dutch Ministry of Foreign Affairs, IHE Delft, €32k [main applicant]
Jan. 2019 to 2021	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Louds Habash E: VP.COMMUNITY@birzeit.edu	BZU Focal Point Coordinator/Co-applicant	Capacity Building in Water, Sanitation and Hygiene (WASH) and Climate Smart Agriculture (CSA) Education and Research in Palestine [OKP Palestine] Main project features: A building capacity joint project, funded by NUFFIC, The Netherlands, and eight Palestinian universities led by An-Najah National University, with five Dutch academic institutions, led by IHE Delft. Review, develop, and launch new syllabi for WASH and CSA curricula, provide investment fund to establish and upgrade water, sanitation and CSA facilities, develop a diploma program in the field of WASH and CSA. The conference brings together scientists, researchers, practitioners and students to exchange and share experience and to present recent innovation, trends, and practical challenges in various fields of nature-based sanitation and smart agriculture.

				Activities Performed: Conduct a baseline data and evaluate current WASH and CSA curricula at local universities, develop new course modules on desalination and water reuse, and another two modules on entrepreneurships in WASH and CSA, and rainwater harvesting. Develop a vocational diploma in the field of WASH and CSA in Palestine, hosting this diploma at BZU and ANU. Implement smart greenhouse pilot at BZU campus for flower production irrigated with rainwater harvested mixed with reclaimed water form BZU central WWTP. Conduct a socio-economic and gender Knowledge-Attitude-Practice study (KAP) utilizing BZU community, farmers. Conduct TMT workshops on treated water use in agricultural irrigation and exposure tours for academic, administrative and joint supervision of MSc students. Funding Agency/Amount: Dutch Nuffic Program, €1,993,660, [€50k, co-applicant]
Jan. 2019 to 2021	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Asem Khalil E: VP.COMMUNITY@birzeit.edu	Project Coordinator/ Co-applicant	University Teaching Qualification course for junior lecturers of Palestinian universities [TQP] Main project features: Aligned teaching and learning for PADUCO-II partner universities staff, class observations and feedback for partner universities staff, didactical topics (on demand), individual study and preparation activities for lecture or portfolio. Activities Performed: Provide general local management support for the TQP training sessions organise a call for application with the 6 partner universities, coordination of activities, lecturing during the two TQPs & logistical arrangements, contribute to TQP (session 1 and 2) with a supportive lecture and a feedback. Perform a one-week exchange and exposure through Training 'Didactics'-TQP. How to develop, plan and deliver an effective training programme, identification of effective teaching/training aids, modern, effective presentation skills. Concept of 'aligned teaching' followed by the first practical topic: formulating learning objectives. Video used to explain the concept of aligned teaching. Several practical exercises incorporated in the lesson. Funding Agency/Amount: Dutch Ministry of Foreign Affairs (DGIS), *PADUCO2 Program*, €50k, cop-applicant
Jan. 2019 to 2021	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Asem Khalil E: VP.COMMUNITY@birzeit.edu	Project Coordinator/ Principle Investigator [PI]	Integrated Multi-Small Grant Facilities Towards Enhancing Sustainable Wastewater Management in Agro-Food Industries in Palestine [IMGF] Main project features: Integrated management practices, smart pilots and tools to enhance understanding and commitment for change in the current disposal practices of selective agrifood-industrial wastewater, MSc course development, and video case as raising

				awareness tool, chief operators training on sludge line process troubleshooting. Site visits, and exchange tours to local and international WWTPs (exchange and exposure) for policy and decision makers. Activities Performed: Integrate research results on water governance [INWA project] within an ongoing master course in the MSc programs offered by IEWS of BZU. Develop and use of a video show case "Let`s talk about why eco-industry", a dissemination tool, including applications of cleaner production considering questions and answers. Conduct tailor made staff training programs on applications of membrane-based technologies for water recycling targeting governmental officials, chief operator training on O&M of urban wastewater treatment plants (WWTPs) including Altireh MBR facility, Albireh WWTP, Nablus West WWTP, Tayaseer WWTP, and Jericho WWTP, industrial liquid and solid waste streams management. Under "seeing believes", perform a one-week exchange and exposure through technical field trips for 5 key staff (decision makers and practitioners) from the private, academia and governmental sectors to five WWTPs in the Netherlands. Funding Agency/Amount: Dutch Ministry of Foreign Affairs (DGIS), *PADUCO2 Program*, €50k, main applicant
March 2019-2021	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Asem Khalil E: VP.COMMUNITY@birzeit.edu	Project Coordinator/ Principle Investigator [PI]	Assessment of Wastewater Treatment Technologies and Promotion of Smart Irrigation Systems Using an Eco-friendly Gum in the MENA Region [MENARA] Main project features: Birzeit University, lead applicant, together with three academic institutions [Morocco, Tunisia and The Netherlands, improves management of water resources for irrigation, soil quality and agriculture economic efficiency using eco-friendly gum mixed in reclaimed water. Compare irrigation selective plants in field-scale and/or microcosms and/or in pots with freshwater irrigated cultivations as controls. Activities Performed: Study the technical and socio-economic feasibility of combining hydro-polymer in treated wastewater combined with hydro-polymers in agricultural applications using *in vitro* then *in vivo tests*. Prepare and apply hydroretents polymer (HRP) for inorganic [heavy metals] and organic pollutants [dyes] from wastewater. Explore in-depth the potential of hydroretents gum in reducing water demands for irrigation and improving soil quality. Conduct joint workshops and tailor made O&M training courses on process troubleshooting, illicit industrial discharges and use of reclaimed water in agricultural irrigation, and site visits including short research stays abroad. Funding Agency/Amount: Dutch DGIS, DUPC2 Program, €55k, main applicant

Feb. 2018 to 2021	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Lourds Habash E: VP.COMMUNITY@birzeit.edu	Project Team Member [TM]	Water and Sanitation Solutions to the Refugees: Two Cases from Jordan and Palestine (WASAR) Main project features: Evaluate and implement sound solutions of integrated water supply, pilot systems for decentralized wastewater management, rainwater harvesting, and raising public awareness in two refugee camps, Al Jalazoune [Palestine] and Gaza/Jerash Refugee Camp [Jordan]. BZU, main applicant, cooperates with Al Balqa University, Jordan and IHE Delft, The Netherlands. Activities Performed: Conduct a feasibility study on appropriate technologies for collection and treatment of rainwater and wastewater in the refugee camps. Implement pilots for rainwater and wastewater collection and treatment in each of the two camps, a socio-economic and gender Knowledge-Attitude-Practice study (KAP) pertaining to water supply and sanitation through surveys and interviews (Pre- and post-awareness) in the two camps. Workshops and mobility of researchers including staff and students. Funding Agency/Amount: Dutch DGIS, DUPC2 Program, €45k, main applicant
Feb. 2017 to 2021	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Lourds Habash E: VP.COMMUNITY@birzeit.edu	Project Coordinator/ Technical Adviser [TA]	Innovative Demonstration on Sustainable Integrated Management of Wastewater & Reclaimed Water Use North West Bank-Palestine Main project features: Anin wastewater management, design, construction, process monitoring [sewerage and solar assisted SBR unit], reclaimed water reuse schemes, sampling and lab analysis of treated water, process optimization, training, desk studies, EIA, awareness programs, site visits and community advise Activities Performed: As project partner of PARC, technical support on strategic sanitation services provision, facility design and management, review of technical design of wastewater treatment plants and effluent reuse schemes, EIA study, socio-cultural, health and economic study of treated water for irrigation, tender documents review. Develop O&M training manual and train chief operators on system operation and control of newly installed SBR in Anin village, and awareness raising programs development and conduction, use of Aqua Designer Software for the design check and process optimization, sampling and analysis of influent and treated water for agricultural reuse, project coordination, steering and technical committees meetings. Funding Agency/Amount: EU SWIMII Program, €1,750,000 [€100k, joint application]

March 2017 to 2021	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Lourds Habash E: VP.COMMUNITY@birzeit.edu	Project Coordinator/ Principle Investigator [PI]	Promotion of Applied Integrated Practices and Technologies for Sustainable Industrial Wastewater Management in Palestine [INWA] Main project features: Industrial wastewater management, R&D, professional training, building capacity, technical advice, innovative pilot systems, M.Sc. research, industrial sector engagement, cleaner production, waste reduction, treated water recycling. Activities Performed: Governance analysis of industrial wastewater management, policies, rules and by-laws of industrial discharges, industrial cadastre in 3 catchment areas, cleaner production in Agrifood industries, pollution prevention, physical chemical and biological pre-treatment pilot systems, UASB, MBR and constructed wetlands, post-treatment of anaerobically pre-treated industrial discharges from slaughterhouses, dairy and olive oil mills. Design, instalment and monitoring of pilot systems, MSc students training on OM&R including process optimization, evaluation, effluent quality monitoring, water and biosolids sampling and analysis, M.Sc. research studies, training programs, project coordination, report writing, publications. Funding Agency/Amount: Dutch DGIS, PADUCO2 Program, €250k, main applicant
April 2020 to July 2020	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Asem Khalil E: VP.COMMUNITY@birzeit.edu	Project Coordinator/ Technical Adviser [TA]	Environment Impacts and Health Assessment (EIHA) Study for the Hot Blend Asphalt Plant (HBAP) in Birzeit Town Main project features: An academic committee team formed by Birzeit University's President and approved by Birzeit Municipality prepared this analytical study. The objective of this study was to assess the potential environmental and health impacts of establishment of the Hot Blend Asphalt Plant (HBAP) in the industrial area of Birzeit Town. Activities Performed: IEWS lead, jointly with the Institute of Community and Public Health of BZU performed a critical review and analysis of the environmental impact assessment (EIA) study provided by the owner. Compilation of information and evidence from the academic literature, an evaluation of local, regional and international experience on the subject. Application of the EPA SCREEN computer model to simulate air pollution dispersion. Meetings and site walk to the envisaged HBAP site. Writing the final EI report, supported by an infographic story telling. The BZU academic committee included members from the Institute of Community and Public Health, Department of Geography and Department of Architecture of BZU with partial technical support from San Francisco University, USA. Funding Agency/Amount: BZU/In-kind contribution as community service

Jan 2009 to May, 2018 [resigned, 2018]	Palestine	Global Environmental Services [GES] Ref. name: Adel Abumoch Email: adel.abomokh@hotmail.com	Technical Adviser [TA]	Co-founder of Global Environmental Services [GES], Palestine [resigned, May, 2018] Main tasks features: Business development, technical advice, project development and writing, project acquisition and marketing Activities Performed: Technical support in business development and projects acquisition, proposals writing, technical review and process design for rural and urban wastewater treatment facilities, desalination plants including selection and sizing of unit operations with mechanical equipment based on both local and international standards as well as project specifications. Initiate and developing design drawings, prepare final technical and financial proposals, flow data sheets, training manuals from early design stages until project commission. Training and preparation of OM&R manuals for Altireh and Alreehan MBR facilities, and EIA studies as per local health, environmental and quality standards, help with licensing and approval of designed projects before implementation phase. Aqua Designer Software for design, promotion & contract negotiation for three MBR systems; Alreehan housing compound, Altireh MBR system, Bethlehem Industrial Estate MBR unit, and Diplomatic Housing Compound extended aeration system with effluent reuse schemes, EIA Team Leader for Alreehan WWTP. Partnerships, networking, communication and marketing Funding Agency/Amount: Private Sector, **U$D 8 million** [as share owner]
Sept 1997 to date	Palestine	Birzeit University (BZU), PALESTINE Ref. name: Dr. Asem Khalil E: VP.COMMUNITY@birzeit.edu	Professor and IEWS Director, M.Sc. Programs Head, Instructor & researcher August 2017-to August 2021	IEWS Director & Head of 2 M.Sc. Programs Managerial and administrative tasks, staff and project management, teaching and development of sanitary and environmental engineering courses including water and wastewater management; reuse of reclaimed water and biosolids. WASH, cleaner production; feasibility and EIA studies, integrated solid waste management; climate change adaptation, water-energy-food nexus, IWRM and EIA. Professional training, consultant for local and international development NGOs and funding agencies, technical advisor for governmental institutions, engineering firms and NGOs, networking, communication and partnerships.
July 2014 – Feb 2016	Palestine/ Netherlands	Netherlands Representative Office (NRO), Palestinian-Dutch Academic Cooperation Program on Water Ref. name: Maher Abu-Madi Email: abumadi@birzeit.edu	Principle Investigator (PI) and Project Team Member (TM)	Olive Oil Mill Wastewater Effects on a pilot MBR: Process performance and biofouling potential Main project features: This research project aimed at understanding the influence of wastewater characteristics [heavy metals] and operational parameters [sludge filterability] on lab and full-scale MBR systems. Operation and monitoring of a pilot-scale MBR system for 12 months. Tow M.Sc. students will work on thesis research, training workshops and

				upgrading of current teaching materials, endorse advanced wastewater treatment technologies to protect public health and secure multifunctional uses of reclaimed water. Activities Performed: Collect data on wastewater characteristics including heavy metals at four urban sewage works; Identify and understand the potential of heavy metals on biofouling pertinent to sludge properties under variable operational conditions; understand the filterability influence of different sludge types on the sustainable operation of MBR system considering MLSS content, sludge age, F/M ratio and membrane permeation. Community outreach and training workshops. Funding Agency/Amount: Dean of Graduate Studies, BZU, **U$D 5k** [MSc thesis works]
June 2014 – June 2015	Palestine	PARC, BZU & EcoSan Consortium EU Program Ref. name: Dia`a Salameh Email: diaa@pal-arc.org	Principle Investigator (PI) and Project Team Member (TM)	Long-Term Impacts of Effluent Irrigation on Soil Structure and Texture Anzah & Beit Dajan Main project features: Among the main activities of sanitation project, was an applied research study to explore long-term impacts of effluent irrigation on soil structure and texture changes. An MSc research study conducted including baseline data before and after operating wastewater treatment plants and irrigation schemes in Anzah and Beit Dajan. Activities Performed: The final report of this applied research study included the following activities: (i) description of wastewater treatment and effluent reuse schemes, (ii) soil sampling at three different soil depths [surface, 10 and 20 cm]. Lab analysis on physical-chemical soil parameters [pH, EC, E. coli, nematode eggs, NO_3-N, total-N, total-P, SAR, Bo, Mo, Cu, Cr, Fe, Cd and Pb], (iii) assessment of long-term impacts of effluent reuse in agricultural irrigation on soil, awareness raising and training of farmers with school farms. Funding Agency/Amount: Dean of Graduate Studies, BZU, **U$D 4.5k** [MSc thesis works]
July 2014 –May 2015	Palestine	Faculty of Graduate Studies, BZU Research Program Ref. Person: Talal Shahwan Email: Dean.gs@birzeit.edu	Principle Investigator (PI) and Main Supervisor	Solar Assisted System for Biogas Recovery from Poultry Manure-A Pilot Scale Anaerobic Digester Main project features: The research study entails construction of an anaerobic digester at a small-scale to produce biogas from poultry manure as an energy source for farms heating, environmental impacts of developed system. Solar-driven anaerobic reactor using thermophilic anaerobic digestion for high biogas production at affordable price. Activities Performed: Using poultry manure as a feed, the anaerobic digestion produced biogas as an energy source and fertilizer. For bioresource recovery and pollution reduction, a pilot-anaerobic digester was designed, and constructed. The process control and monitoring performed to verify the feasibility of this treatment technology. Chemical analysis for the raw

				manure with proper C:N:P ratio, produced biomass and biogas were performed at BZU central labs, the start-up phase and steady state conditions are monitored and controlled. Two papers published with 150 pilot systems designed as knowledge sharing with Mozambique for knowledge sharing. Funding Agency/Amount: Dean of Graduate Studies, BZU, **U$D 6k** [MSc thesis works]
March 2014 – March 2015	Palestine	Faculty of Graduate Studies, BZU Research Program Ref. Person: Talal Shahwan Email: Dean.gs@birzeit.edu	Principle Investigator (PI) and Main Supervisor	An Innovative Bioreactor for Denitrification of Nitrate-Rich Groundwater Using Whey Main project features: Local innovative design and low-cost bioremediation technologies utilizing the biological denitrification process are specially needed in developing countries like Palestine. The aim of this research study is to design and operate a lab-scale denitrification system, a slurry bioreactor, to remove nitrate-using whey as a low-cost external carbon source for the heterotrophic denitrifies. Activities Performed: The effectiveness of the slurry bioreactors in batch and continuous flow modus will be investigated under variable organic and inorganic volumetric loads. Process performance data from the lab-scale studies will be analysed and cost information on the system developed will be also estimated to provide a technical and economic comparison with desalination technology. The results obtained will assist water utilities and decision makers in opting for environmentally sound and low-cost treatment technologies to remediate nitrate-rich groundwater. Funding Agency/Amount: MEDREC via PWA, Qatar, **U$D 5k** [MSc thesis works]
Oct 2010-Dec 2014	Palestine	Institute of Environmental & Water Studies, BZU, and PARC Ref. name: Maher Abu-Madi Email: abumadi@birzeit.edu	Trainer	Sustainable rural sanitation and wastewater reuse for food security program Main project features: Wastewater reuse (WR) for food security, design, build operate 2 rural sewage works, planning of WR schemes, public awareness campaigns on WR in agriculture Activities Performed: Training program development, agenda preparation, training manuals development, conduction of lab analysis, preparation of video tape on wastewater reuse, public awareness campaigns for farmers, women, and school kids, non-conventional water resources development, cost-effectiveness of decentralized wastewater management and reuse schemes, review of technical design of WWT alternatives using German software AnaWin and Aqua Aero software, training programs for operator staff on OMR of activated sludge systems, site visits to local and regional sewage works, baseline data collection and EIA studies of WWR, desk studies on cost effectiveness and women empowerment Funding Agency/Amount: EU, SWIM Program, **€**2,7**5 million** [PARC joint project]

Feb 2014 –Nov 2014	Palestine	Juhoud for Community and Rural Development/ UNDP-GEF Program Ref. name: William Abdo Email: wabdo@juhoud.org	Principle Investigator (PI) and Project Team Member (TM)	Olive Oil Products Protection from Herbicides and Insecticides. Main project features: Community development, farmers technical training, R&D, sampling program for soil, olive trees leaves, and olive oil to screen for potential pesticides residues, and quality analysis of oil before and after pesticides applications, control olive trees farms, filed training and questionnaire for baseline data collection. Target were five Rural Communities [Tulkarm] and 6 villages in Birzeit area Activities Performed: Development of sampling program, training workshops and field questionnaire for baseline data collection. Sampling of soil, olive trees leaves, and olive oil before pesticides application, screening and residues analysis of potential pesticides, herbicides and insecticides on soil, leaves and olive oil. Control olive trees farms, no pesticides practices, analysed for pesticides, training workshops organization, public consultation, and training materials for safe usage of pesticides. Funding Agency/Amount: Italy, WHO Program, **€10** k [main applicant]
Feb 2013 – March 2014	Palestine	NEF and PCARD / USAID-DAI Ref. name: Imad Kamhawi Email: _Imad_Kamhawi@dai.com	Team Member (TM) and Trainer	EIA Compete Project Reclaimed Water Facilities in Nablus & Jenin Cities Main project features: The "Greening Deir Sharaf and Jalameh" project is designed as a one-year project to introduce the technique to local farmers and community leaders, to develop practical technical and management guidelines for using wastewater, and to create a foundation for expansion to the entire Deir Sharaf and Jalameh valleys in Nablus and Jenin., field training and questionnaire for baseline data collection Activities Performed: The environmental impacts of water reuse project identified and considered, appropriate EIA adopted, consulting team adhered to established environmental compliance procedures to study the foreseeable significant effects, beneficial and adverse impacts on farmers. Physical environment and ecological systems in Deir Sharaf and Jalameh valleys, training workshops organization and public consultation, filed consultations and scoping sessions with stakeholders including school farms, EIA report. Funding Agency/Amount: KfW Germany via GIZ, Water Program, **€8** k [main applicant]
July 2013 – Feb 2014	Palestine	Palestinian Water Authority (PWA) / Austrian Development Agency (ADA) Ref. name: Hazem Kittaneh Email: h_kittani2001@yahoo.com	Principle Consultant (PC) and Project Team Member (TM)	Building Capacity and Institutional Reform for an Integrated Management of Water and Sanitation Services in Rural Communities Main project features: Building capacity, technical training, R&D, planning, design of rural sanitation systems, feasibility studies, rural sanitation strategy development

				Activities Performed: Principle Technical Researcher/Water Resources & Sanitation Directorate in the field of strategic development of rural sanitation services, review of 22 M.Sc. thesis works, develop national strategies-biosolids management for beneficial uses and wastewater treatment technologies, workshops organization and public consultation, delivery of OM&R manuals for onsite treatment systems, report writing and delivery. Funding Agency/Amount: Austria, Water Program, **€1.0 million** [main applicant]
Mach-June 2012	Palestine	Palestinian Water Authority (PWA)/GIZ Ref. name: Adel Yasin Email: adel_pwa@yahoo.com	Technical Trainer	Building Capacity & Institutional Reform for IWRM and Sanitation in Rural Communities Main project features: PWA and GIZ Technical Trainer for PWA staff and joint services councils on the use of software packages [AquaDesigner, AquaAero] for the design and technical review of wastewater treatment plants, simulation of processes, short design assignment, calculation of CAPEX and OPEX of sewage works, evaluation of training programs. Activities performed: Training agenda preparation, materials and conduction of training programs, technical evaluation of training sessions, project design assignment, training manuals preparation, feasibility studies using alternative WWTPs designs. Funding Agency/Amount: KfW via GIZ, PWA Water Program, **€6.0 k** [main applicant]
Dec 2010-Nov 2011	Palestine	Ministry of Local Government (MoLG) Ref. name: Walid Halyqah Email: walidmus@yahoo.com	Technical Adviser	GIZ Solid Waste Management Program Main project features: Solid Waste Management/Institutional Capacity Building. Technical advice/Joint Services Directorate in SWM field, Solid Waste by-law, strategy and policy Activities performed: strategic actions development & review, principle trainer on use of software packages to design sewage works alternatives of 3 feasibility studies for Joint Services Councils, member of the EIA committee and reviewed 6 EIA studies for urban sewage works prepared by Black & Veatch for the PWA, training programs for PWA and MoLG and JSCs staff, report writing and proposals development, HRD, ToR writing for three priority solid waste tasks, national committees within the MoLG, PWA and PSI Funding Agency/Amount: KfW via GIZ, Solid Waste Program, **€56 k** [Minster Adviser]
June 2002-07; extended to 2011	Palestine	Institute of Water Studies [IWS], BZU among other 17 partners; among them China, Colombia, Egypt, Ghana, India & Iran	Project's Newsletter Editor & Scientific Committee Member, Conference Organizer	Program on Water Education & Research [PoWER]-FP6-INCO Call Main project features: Under PoWER framework, manage joint Masters Programs with universities in China, India, Indonesia, Palestine and the UK, and 8 online courses are being developed, co-development of two E-learning modules, Newsletter Chief Editor

		Ref. name: Ziad Mimi Email: zmimi@birzeit.edu		Activities performed: Building capacity and training of sanitary engineers and sewage works operators, training program development, co-supervision of M.Sc. Programs with universities in China, India, Indonesia, Palestine, NL and the UK, and 8 online courses are being developed. Co-development of two E-modules, Newsletter Editor, joint publications, identifying knowledge and research needs PoWER partnership, develop e-course "Waste Management & Biosolids Reuse", participate in video-conferencing and establish multi-media learning facilities at BZU. Funding Agency/Amount: Dutch Ministry for Foreign Affairs, **€3.5 million** [main applicant]
Jan 2009 – Sept 2010	Palestine	Palestinian Water Authority [PWA] Ref. name: Shaddad Attili Email: sattili@pwa.ps	Technical Expert	GIZ technical advice for the PWA-Water Program Main project features: Water Program/Institutional Capacity Building, technical advice/Water Resources and Sanitation Directorate, project development and writing, technical training, community advise, joint water commission membership Activities performed: Technical advice on strategic rural wastewater management, review of technical design of WWTPs, biosolids management and effluent reuse schemes, EIA review, evaluation of technical and financial offers, prepare ToR, JWC membership, training programs development and conduction, development and writing of feasibility studies, Aqua Designer Software training, initiation of wastewater policy, strategic actions, reclaimed water guidelines, technical committees membership Funding Agency/Amount: KfW via GIZ, Water Program, **€58 k** [Minster Adviser]
Aug 1996-Aug 1997 and Jan–Sept, 2010	Palestine	Palestinian Water Authority [PWA] and GIZ Ref. name: Mageda Alawneh Email: maalawneh@pwa.ps	Head of Technical Department/ Senior Technical Advisor	CIM-GTZ Water Program-Technical Sanitation Expert Main project features: HRD, building capacity, technical training, community advice, feasibility studies, EIA review, institutional building Activities performed: review of water and sanitation projects [Nablus West WWTP; Salfeet WWTP; Ramallah WWTP; Jenin Sewage works upgrade, community consultancy services and professional training. PWA representative on WASH and presentations of technical papers at national and international conferences, conduction of and EIA core team leader for several environmental Impact studies (EIAs for USAID water supply projects. Impact of Jewish colonies on Palestinian environment, wastewater policy elements, wastewater strategic planning, transboundary wastewater management, non-conventional water resources. Sludge management and water reuse schemes, effluent quality standards, brackish water desalination, MBR systems as packaged compact treatment units, membership in several national networks and committees on sanitation and environment as

				the Joint Water Committee (JWC), development of water and wastewater standards (PSI), review of wastewater projects, HRD and training, R&D review. Funding Agency/Amount: KfW via GIZ, Water Program, **€115 k** [Minster Adviser, 2 years]
May 2006-May 2008	Palestine	IEWS and partners; Germany, Italy, Spain, Egypt, Syria, Tunisia Ref. name: Ziad Mimi Email: zmimi@birzeit.edu	Project coordinator/ manager	PRO-MEMBRANE within FP6-INCO-Program Main project features: Promotion and focusing on current research activities using Membrane Technologies [membrane bioreactors; MBR, UF, MF, and RO] for Water Treatment in Mediterranean Zone; identify, map & assess on-going research activities Activities performed: Database establishing on-going research & professionals in membrane technology, identifying knowledge gaps and barriers for the of R&D cooperation and networking of current research in a Mediterranean scope. Develop future research activities, non-conventional water resources; brackish water, rainwater harvesting, desalination, MBR systems, raising awareness, training & public awareness campaigns, young scientist awards program, web page development, regional and international conferences. Funding Agency/Amount: EU, Water Program, **€3.45 k** [joint project]
Oct 2007	Palestine	UNESCO/Flanders Ref. name: Ziad Mimi Email: zmimi@birzeit.edu	Trainer	Environmental Management of Water & Wastewater Quality Project Main project features: Building capacity, environmental management, lab analysis, effluent quality for reuse Activities performed: Training program development, agenda preparation, training manuals development, conduction of lab analysis, preparation of video tape. Funding Agency/Amount: UNESCO/Flanders, **€20 k** [joint project]
Jan 2003-April 2007	Palestine	Water Studies Institute, Birzeit University Ref. name: Munzer Barakat Email: mbarakat@birzeit.edu	Project team member	MEDA - EMWater-Project Main project features: Capacity Building, HRD, R&D Activities performed: proposal development and technical writing, trainer and development of training programs, project staff meeting, M.Sc. students supervision, development of effluent reuse guidelines, and design review of the onsite systems Funding Agency/Amount: EU, **€1.15 million** [joint project, CDG Led, Berlin, Germany]
April-Dec 2005	Palestine	Institute of Environmental and Water Studies [IEWS], BZU and Palestinian Agricultural Relief Committees (PARC)	Project leader	UNESCO/MEDA Training Programs

				Main project features: Training program development and conduction, WWT planning and design, OM&R sessions of urban sewage works Activities performed: Building capacity and training of sanitary engineers and sewage works operators, training program development, lead trainer on WWTPs design, technical training on process optimization, self-monitoring programs, training manuals preparation on OM&R of WWTPs, process optimization. BNR processes, sludge bulking and foaming abatement, effluent reuse and biosolids disposal, site visits planning and conduction to local wastewater treatment plants; BZU, Ramallah and Al-Bireh sewage works, analysis of monitoring reports. Funding Agency/Amount: EU, **€96 k** [main applicant]
April 2004 and May 2004	Palestine	Water Research Centre/Al Azhar University	Team Leader/Sanitary Engineer	Operational Training and Wastewater Quality Monitoring Programs Main project features: Building capacity and training, human resources development, operational management of sewage works Activities performed: Development of tailor made training programs on water and wastewater analysis, technical and financial proposal writing, video tape preparation, training materials preparations, manual for OM&R of onsite treatment and effluent reuse schemes, program organization and instructor for site visits to sewage works, program evaluation and final report writing. Funding Agency/Amount: EU, **€26 k** [main applicant]
June 2001-April 2004	Palestine	Faculty of Engineering, Birzeit University	Project Coordinator	WASTEVAL Program I and II Main project features: Capacity Building, HRD, R&D Activities performed: facility upgrading including labs development, supervision of three M.Sc. students offered by scholarships from the project worked on low-cost treatment technologies using integrated UASB rector/ponds system; developer of the wastewater research and demonstration pilot plant at Al-Bireh wastewater treatment plant, scientific publications and conference attendance, community training on onsite treatment systems. Funding Agency/Amount: EU, **€3.36 million** [main applicant]
Sep. 1997-May 2000	Palestine	Faculty of Engineering, Birzeit University	Project Coordinator	Project Title: CORETECH Community Based WWTPs and Effluent Reuse Main project features: Capacity Building, HRD, R&D

				Activities performed proposal writing and daily scientific coordination, project staff meeting, technical report writing, annual meetings of project partners, research supervision of three M.Sc. students worked on low-cost treatment technologies using integrated UASB rector/two-stage biofilters adequate for treatment and effluent reuse, scientific publications and conference attendance, community training on onsite treatment systems. Funding Agency/Amount: EU, **€2.87 million** [main applicant]
Feb 1995-July 1996	Germany	Town councils, Federal Ministries, Wastewater Associations, Industrial Sector	Office Deputy Head/ Project Manager	Feasibility studies for sustainable sanitation facilities in German communities Main project features: Use of German Software for the design of several municipal waste and sewage treatment facilities; Rohne Helme Rural District, Zeitzer Industrial Sewage Works, landfill design, hydraulic river modelling, planning and design of pumping stations, low-cost sanitation projects, feasibility studies, WWTPs design review, conduction of EIA for Chemnitz Urban Sewage Works [500.000 capital], planning, design, tendering, project acquisition, technical and financial evaluation of sanitation facilities, and report writing Activities performed: Business development, project management, projects acquisition, marketing, planning, design and technical review of feasibility studies, industrial pre-treatment, brown fields remediation. Funding Agency/Amount: KfW, **DM4.10 million** [main applicant, consultancy services]
July 1990-Jan 1995	Germany	Town councils, Federal Ministries, Wastewater Associations, Industrial Sector	Manager Project Acquisition	Planning and design of WWTPs for several German rural and urban communities Main project features: Use of ANaWin, a German Software for the design of several municipal waste and sewage treatment facilities; EIA for industrial estate expansion and three large wastewater treatment plants [WWTPs], revision of technical reports on Brownfields and old site remediation of Chemical Industry in Bitterfeld City. Feasibility studies and design for municipal WWTPs for Grüna and Klaffenbach cities, planning and design of several central WWTPs in Ursprung and Kirchberg, Chemnitz, Salzwedel, Weissensee and Cunersdorf; population served by these WWTPs varied between 50 and 500000 population equivalent. [PE], upgrade of decentralized and urban WWTPs, feasibility studies, bioremediation, training programs, projects acquisition, technical, financial evaluation of sanitation facilities and report writing Activities performed: Human resources management, business development, project management, projects acquisition, marketing, planning, design and technical review of feasibility studies *(process design for liquid and biosolids lines)*, community outreach, scoping sessions and public awareness sessions, WWTPs manuals & EIA studies.

				Funding Agency/Amount: KfW, **DM8.87 million** [main applicant, consultancy services]
Nov 1988-June 1990	Germany	Town councils, Federal Ministries, Wastewater Associations, Industrial Sector	Senior Researcher/ Technical Trainer	Training, R&D Management with FAL Research Institute of Technology AND Inst. Sanitary & Environmental Engineering, TU Braunschweig, Braunschweig, Germany Main project features: Use of DeNNI, a German Software for the design of wastewater treatment plants (WWTPs); co-mentoring of PhD and MSc research: aerobic and anaerobic wastewater treatment using bioreactors for leachate treatment, slaughter house wastewater and industrial wastewater from Volkswagen Auto Industry/Wolfsburg and applying activated sludge systems and fixed bed media, process control, water and data analysis, anaerobic sludge digestion, technical and financial evaluation of sanitation facilities and report writing Activities performed: Human resources management, business development, project management, projects acquisition, training programs, planning, design and technical review of feasibility studies, training manuals, conduction of EIA studies. Funding Agency/Amount: KfW, **DM1.25 million** [main applicant]
Oct 1983 – Oct 1987	Germany	TU Braunschweig, DAAD Scholarship, Ph.D. student, Braunschweig, GERMANY	Ph.D. student/ researcher/ instructor/trainer	Ph.D. Project: *Investigations on nitrification process of ammonium-rich wastewater in single stage activated sludge systems* Activities performed: Design and operation of bench scale activated sludge systems, treatment of ammonia-rich industrial wastewater with low BOD load, variable process conditions [hydraulic and pollution loads, sludge age, salts, phenols and cyanide]. C:N impacts on process stability, integration of design parameters in ATV-A 131 including sludge age for nitrifying bacteria. Experimental setup and run of associated laboratory test, data compile and statistical analysis, final thesis writing, and defence, publications of main results. Funding Agency/Amount: Volkswagen AG, **DM1.16 million** [main applicant]

Publications

Refereed Journals

https://scholar.google.com/citations?user=zYkHw2gAAAAJ&hl=en

1. Younis, S., Al-Sa`ed, R. 2022. Evaluation of advanced chemical oxidation process for pretreatment of mixed agro-food industrial wastewaters in Nablus, Palestine. Desalination and Water Treatment (special issue).
2. Attili, O., Al-Sa`ed, R. 2022. Efficacy of natural wetlands along Wadi Zomer as a sustainable phytoremediation alternative for industrial effluents from Nablus West, Palestine. Desalination and Water Treatment, 275, 245-252. DOI: https://doi.org/10.5004/dwt.2022.28930.
3. Ahmed, M., Al-Sa`ed, R., van der Steen, P. 2022. Enhancing governance of industrial wastewater management in two Palestinian dairies using cleaner production and water footprint principles. Desalination and Water Treatment, 275, 339-349.DOI: https://doi.org/10.5004/dwt.2022.29136.
4. Nassar, A., Al-Najjar, H., Abukmeil, R., Al-Sa`ed, R. 2022. A Feasible scheme for slaughterhouse wastewater treatment using an anaerobic digestion batch reactor followed by an aerobic treatment stage. Desalination and Water Treatment, 275, 260-267. DOI: https://doi.org/10.5004/dwt.2022.28966.
5. Abusamra, R., Hasan, A.R., Alimari, A., Alhajhussein, M., Saleh, M., Al-Sa`ed, R., Alary, R. 2022. Enhanced fodder production using treated wastewater from a pilot constructed wetland system. Desalination and Water Treatment, 275, 313-322. DOI: https://doi.org/10.5004/dwt.2022.28831.
6. Ali, R., Al-Sa`ed, R. 2017. Pilot-scale anaerobic digester for enhanced biogas production from poultry manure using a solar water heating system. Int. J. Environ. Studies, DOI: 10.1080/00207233.2017.1392766.
7. Taha, M., Al-Sa`ed, R. 2017. Potential application of renewable energy sources at urban wastewater treatment facilities in Palestine – three case studies. Desalination & Water Treatment 94, 64-71.
8. Taha, M., Al-Sa`ed, R. 2017. Application potential of small-scale solar desalination for brackish water in the Jordan Valley - Palestine. Int. J. Environ. Studies DOI: 10.1080/00207233.2017.1403759.
9. Yaqob, E., Al-Sa`ed, R., Sorial, G., Suidan, M. 2015. Simulation of transboundary wastewater resource management scenarios in the Wadi Zomer watershed, using a WEAP model. Int. J. Basic and Appl. Sci., 4 (1), 27-35.
10. Yaqob, E., Al-Sa`ed, R., Sorial, G., Suidan, M. 2015. Cost-benefit analysis model for treated wastewater use in agricultural irrigation: Four Palestinian case studies. Global J. Res. Analysis 4(12), 336-339.
11. Yaqob, E.Y., Al-Sa`ed, R., Sorial, G., Suidan, M. 2014. Situation analysis and perspectives of transboundary wastewater management along Israel/Palestine borders. Asian J. Appl. Sci. Eng., 3(1), 135-150.
12. Al-Sa'ed, R., Tomaleh, N. 2012. Performance evaluation of a full-scale extended aeration system with emphasis on operation reliability and effluent quality for reuse. Clean: Air, Water Soil, 40(11), 1250-1256.
13. Al-Sa`ed, R., Mohammed, A., Lechner, M. 2012. Community participation and local regulations for sustainable sanitation and water reuse in Anza village, Palestine. Sustainable Sanitation Practice 11(4), 20-28.
14. Al-Sa`ed, R., Ramlawi, A., Salah, A. 2011. A survey on utilization of agricultural pesticides in selected Palestinian districts. Int. J. Environ. Studies 68(4), 519-529.
15. Al-Sa'ed, R., Abu-Madi, M., Zimmo, O. 2011. Novel Design Concept for Facultative Ponds Using Rock Filters to Reclaim the Effluent. J. Environ. Eng. 137(4), 284-290.
16. Hussein, R., Swaileh, K., Al-Sa'ed, R., Roest, K. 2011. Use of molecular techniques for the analysis of foam-causing bacteria in Al-Bireh oxidation ditch, Palestine. Int. J. Environ. Studies 69(1), 91-101.
17. Al-Sa'ed, R. 2010. A policy framework for trans-boundary wastewater issues along the Green Line, the Israeli-Palestinian border. Int. J. Environ. Studies 67(6), 937-954.
18. Al-Sa'ed, R., Mimi, Z. 2010. The role partnerships in water-related research in Palestine. International Journal of Environmental Studies 67(6), 923-936.

19. Deek, Z., Abu-Madi, M., Al-Sa'ed, R. 2010. Acceptance of rural communities in Ramallah and Al-Bireh Governorate to use treated wastewater. Dirasat: Engineering Sciences 37(1), 117-126.

20. Al-Sa`ed, R., Sayadi, S., Ghata, A., Abdel-Shafy, H., Schories, G., Oropeza, M., Lorenzo, A., Drioli, E. 2009. Advancing membrane technologies for wastewater treatment and reclamation in selected Arab MENA countries. Desalination & Water Treatment 4(1-3), 287-293.

21. Al-Sa`ed, R., Abu-Madi, M., Heun, J., 2009. Advancing environmental education and training for sustainable management of environmental resources in Palestine. Appl. Environ. Edu. & Communication 8(1), 1-11.

22. Abu-Madi, M., Al-Sa`ed, R. 2009. Towards sustainable wastewater reuse in the MENA region. Consilience: The Journal of Sustainable Development 2(3), 1475–1481.

23. Barghouth, J., Al-Sa`ed, R. 2009. Sustainability of ancient water supply facilities in Jerusalem. Sustainability 1(4), 1106-1119.

24. Daghrah, G., Al-Sa'ed, R. 2009. Treated wastewater impact on Al Qilt catchment area-Palestine. Asian J. of Earth Sciences 2(3), 58-70. DOI: 10.3923/ajes.2009.58.70.

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27. Ali, M., Al-Sa`ed, R., Mahmoud, N. 2007. Start-up phase assessment of a UASB–septic tank system treating domestic septage. Arabian J. Science & Eng. 32(1C), 65-75.

28. Al-Sa`ed, R. 2007. Pathogens assessment in reclaimed effluent used for industrial crops irrigation. International Journal of Environmental Research and Public Health 4(1), 68-75.

29. Samhan, S., Al-Sa`ed, R., Mahmoud, N. 2007. Removal of pathogenic microorganisms in pilot-scale UASB-septic tanks and Albireh urban wastewater treatment plant in Palestine. Water Int. 32(5), 538-544.

30. Al-Sa`ed, R., Mubarak, S. 2006. Sustainability assessment of onsite sanitation facilities in Ramallah-Albireh district with emphasis on technical, socio-cultural and financial aspects. Manage. Environ. Quality: An Int. J. 17(2), 140-156.

31. Al-Sa`ed, R., Hithnawi, T. 2006. Domestic septage characteristics and co-treatment impacts on Albireh wastewater treatment plant efficiency. Dirasat: Engineering Sciences 33(2), 187-198.

32. Fuqaha, A., Al-Sa`ed, R.M. 2006. Use of biofilter units to enhance the effluent quality of anaerobically pretreated domestic wastewater. Dirasat: Engineering Sciences 33(2), 117-127.

33. Nazer, D.W., Al-Sa`ed, R.M., Siebel, M.A. 2006. Reducing the environmental and economic impact of the unhairing-liming process in the leather tanning industry. J. Clean. Prod. 14(1), 65-74.

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Refereed Journals [Communicated and under review]

1. Diab, A., Al-Sa`ed, R. Assessment of a pilot UASB rector for poultry wastewater pretreatment. (under preparation)
2. Najajra, A., Al-Sa`ed, R. Assessment of two pilot UASB rectors for the pretreatment of mixed agrifood industrial wastewater. (under preparation)
3. Faqeeh, H., Al-Sa`ed, R. Efficiency of constructed wetlands for anaerobically pre-treated mixed industrial effluents. (under preparation)
4. Yerousis, G., Al-Sa`ed, R. Innovative biosolids recycling: A pilot-scale for biosolids-amended biobricks production (submitted).
5. Musleh, A., Al-Sa`ed, R. Peace building projects as a tool for joint wastewater management along the Green Line: Cases studies. (Submitted)
6. Al-Sa`ed, R. Quantification of pesticides residues on fruits and vegetables from selected farms in Palestine (Submitted).
7. Al-Sa`ed, R., Ramlawi, A. Utilization of public health pesticides in selected Palestinian districts. (In preparation).
8. Samarah, N., Al-Sa`ed, R. Fate and impacts of heavy metals of Al-Bireh stabilized biosolids used for agricultural applications (In preparation).
9. Al-Sa`ed, R., Samarah, N. Origin and mass balance of heavy metals in Al-Bireh sewage works: Liquid and sludge lines (In preparation).
10. Mafarjeh, M. Al-Sa`ed, R. Feasibility of windrow composting for domestic solid waste recycling in Palestine: A pilot scale facility (under preparation).
11. Hassan, E., Al-Sa`ed, R. Understanding the cause of sludge bulking and foaming phenomena in Al-Bireh wastewater treatment plant (under preparation).
12. Shkoukani, M.F., Al-Sa`ed, R. Development of an environmental management system using cleaner production in Palestinian dairy industries (Submitted).
13. Ghannam, M., Al-Sa`ed, R., Zimmo, O. Recycling assessment of solid waste from Palestinian olive mills (Submitted).
14. Hamrasheh, B., Abu-Madi, M., Al-Sa'ed, R. Influences of potential climate change on Palestinian rain-fed agriculture: the case of Jenin District (Submitted).
15. Al-Sa`ed, R. Policy implications on the selection of wastewater treatment technologies for agricultural in Beit Dajan, Palestine. (Submitted).

International Conferences and Symposia

1. Al-Sa`ed, R., Flamini, A.C., Valderrama, A.B., van der Steen, P. 2020. Applied wastewater governance analysis for sustainable management of industrial wastewater sector in Palestine. Sixth Int. Symposium Knowledge and Capacity Development. 27-29 May 2020, Delft, the Netherlands.
2. Al Hmaidi, M.S. Al-Sa`ed, R. 2020. A review of the financial and commercial viability of water and wastewater service providers in Palestine. 6th Int. Symposium Knowledge and Capacity Development. 27-29 May 2020, Delft, the Netherlands.
3. Saleem, M., Al-Sa`ed, R. 2018. Evaluation of biosolids stabilization degree on four different wastewater treatment plants destined for agricultural utilization in Palestine. In: Proceedings 6th Balkans Joint Conference, 7-9 Nov. 2018, Expo city Albania, Tirana, Albania.

4. Al-Sa`ed, R. 2017. Marine pollution and protection in the Mediterranean towards sustainable development in Gaza coastal areas. In: Proc. Workshop on Crisis of the Ocean: Threats to our marine ecosystems and ways to protect the ocean. 18-21 October 2017. Aqaba, Jordan.
5. Ali, R., and Al-Sa`ed, R. 2017. Economic Feasibility of a Biogas System in a Small Palestinian Poultry Farm. In: Proceedings 1st Springer Euro-Med. Conf. Environ. Integration (EMCEI), 22-25 Nov., Sousse, Tunisia.
6. Ali, R., and Al-Sa`ed, R. 2015. A novel process design for enhanced biogas production from poultry manure using a solar water heating system. In: Proceedings Int. Conf. Environ. Sci. Technol., 3-5 Sep., Rhodes, Greece.
7. Ali, R., and Al-Sa`ed, R. 2015. An innovative solar assisted anaerobic digester for biogas production from poultry manure in a Palestinian farm. In: 40th IDB Exhibition Faire, 7-11 June, 20015, Maputo, Mozambique.
8. Taha, M., and Al-Sa`ed, R. 2015. Applicability of small-scale renewable desalination units in the Jordan Valley - Palestine: solar energy for brackish water treatment. Proc. Int. Conf. Desalination Environment: Clean Water and Energy, 22–26 May 2015, Rome, Italy.
9. Taha, M., and Al-Sa`ed, R. 2015. Feasibility of renewable energy application at wastewater treatment plants in Palestine - Three case studies. Proc. Int. Conf. Desalination Environment: Clean Water and Energy, 22–26 May 2015, Rome, Italy.
10. Al-Sa`ed, R. 2015. First urban MBR facility in Palestine, a cleantech for sustainable wastewater management and reclaimed water use. Proc. 2nd Conference, 28 October 2015, The Hague, The Netherlands.
11. Yerousis, G., and Al-Sa`ed, R. 2012. Technical and economic feasibility of biosolids - Amended concrete brick production. Proceedings of Linnaeus 8th ECO-TECH International Conference. 26-28 Nov. 2012, Kalmar, Sweden.
12. Samarah, N., and Al-Sa`ed, R. 2010. Hazardous emissions from Al-Bireh oxidation ditch: heavy metals in the effluent and biosolids. Proc. Linnaeus ECO-TECH 7th Int. Conf. Establishment of Cooperation Between Companies and Institutions in the Nordic, Baltic Region, and the World, 22-24 Nov. 10, Kalmar, Sweden.
13. Al-Sa`ed, R., and Al-Hindi, A. 2009. Challenges of transboundary wastewater from Palestinian communities along the Green Line. Proc. Int. Symposium on Transboundary Wastewater Management, 31 Agust-2 Sept., 2009, University of Arizona, Arizona, USA.
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17. Abu-Sharbak, N., Al-Sa`ed, R., and Abu-Madi, M. 2007. Analysis of operation costs at Al-Bireh wastewater treatment plant: A Palestinian case study. Proc. Kalmar ECO-TECH ´07 and 3rd Baltic Symposium on Environmental Chemistry, 26-28 Nov. 07, Kalmar, Sweden.
18. Abu-Madi, M., Al-Sa'ed, R., Mahmoud, N., and Burnat, J. 2007. Socio-economic assessment of greywater treatment systems in western Ramallah. Proc. Int. Conf. on Water Resources in Palestine, 25-28 August, 2007, Amman, Jordan.
19. Daghrah, G., and Al-Sa'ed, R. 2007. Pollution and Water Quality Assessment of Wadi Al Qilt. Proc. Int. Conf. on Sustainable Development and Management of Water in Palestine. Amman, Jordan, 27-30 August 2007.
20. Barghouth, J., and Al-Sa`ed, R. 2006. Archaeology and landscape settings of the ancient water supply systems in Jerusalem. Proc. 1st Intl. IWA Symposium on Water and Wastewater Technologies in Ancient Civilizations, 28-30. October, Iraklion, Greece.

21. Al-Sa`ed, R. 2005. Education and research capacity building in environmental science and engineering. Water Studies Institute of Birzeit University a case. Proc. Eco-Tech 05 & 2nd Baltic Symposium Environ. Chemistry, Kalmar University, 28.11.-3.12.05, Sweden.
22. Fuqaha, A., and Al-Sa'ed, R. 2004. Development of a two-stage biofilter system to enhance the effluent quality of a UASB pre-treated domestic sewage. Proceedings of the 2nd Environmental Symposium Water Resources and Environmental Protection in the Middle East and North Africa. Amman, Jordan.
23. Al-Sa'ed, R. 2004. Sustainability of oxidation and mechanized aerated ponds for domestic and municipal wastewater treatment in Palestine. Proc. Int. Engineering Conf. 26-28.04.2004, Mutah University, Jordan.
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25. Al-Sa'ed R.M. 2003. Wastewater treatment, reuse, and reclamation in the West Bank/Gaza. Proceedings of the Int. Workshop on Wastewater Reuse and Water-Related Agricultural Practices. Nicosia, Cyprus.
26. Al-Sa'ed R.M. 2003. Environmental science and engineering within the context of a regional conflict: Problem assessment and suggested solutions. Proc. Eco-Tech 03 Baltic Symposium Environ. Chemistry, Kalmar University, Sweden.
27. Al-Juaidy, A., Mimi Z, and Al-Sa'ed, R. 2003. Palestinian experience with enhanced pre-treatment of black wastewater from Birzeit University using a UASB septic tank system. Proceedings of the 2nd Int. Symposium on Ecological Sanitation, Lübeck, Germany.
28. Theodory, J., and Al-Sa`ed, R.M. 2002. Performance evaluation and monitoring of an appropriate low-cost wastewater treatment technology for small Palestinian communities. Proc. Regional Symposium on Wastewater Reclamation and Reuse. Crete, Greece.
29. Abu-Madi, M., Alaerts, G., Braadbart, O., and Al-Sa`ed, R. 2002. Conceptual framework for wastewater reuse in the Middle East and North Africa. Proceedings of the International Conference on Waste Management, Spain.
30. Abu Madi, M., Braadbaart, O., Al-Sa'ed, R., and Alaerts, G. 2002. Acceptance and willingness of farmers to pay for irrigation with reclaimed wastewater in the Middle East and North Africa Region. Proceedings of the Regional Symposium on Wastewater Reclamation and Reuse, Crete- Heraklion, Greece.
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32. Al-Sa'ed R.M. 2000. Wastewater management for small communities in Palestine. Proc. Technical Expert consultation on appropriate and innovative wastewater management for small communities in EMR countries. WHO/CWHA, Amman, Jordan.
33. Nwahdah, A., and Al-Sa'ed R.M. 1999. Technical evaluation and process optimization of water treatment plant in Jericho. Proceedings of the International Conference on Conventional Water Treatment, The Hague, The Netherlands.

Publications during and after Promotion (M.Sc. and PhD degrees)

34. Al-Sa'ed R.M. 1988. Investigations on nitrification of ammonium-rich wastewater in activated sludge systems. Water Supply Journal (6), 235-242.
35. Al-Sa'ed R.M. 1987. Operating results on nitrification process of ammonium-rich wastewater Treatment, Publications of the Institute of Sanitary and Environmental Engineering, Technical University of Braunschweig, Volume 42, (in German).
36. Hashwa, F.A., and Al-Sa'ed. R.M. 1986. Enumeration and enzymatic activity of micro-organisms in water and sediment of the Zarqa river. Proceedings of the Microbial Ecology Conference, Yugoslavia.

37. Al-Sa'ed. R.M., and Hashwa. F.A. 1985. Is water pollution dilution a suitable solution? Proceedings of the European Conference EAWPC, Rome, Italy.

National Conferences and Symposia

1. Ahmad, M., Al-Sa`ed, R. 2021. Enhancing governance of industrial wastewater management in two Palestinian dairies using cleaner production and water footprint principles. In: OKP First Palestinian- Dutch Int. Conference in WASH and CSA, 16-17 November, 2021, An-Najah National University, Nablus, Palestine.
2. Younis, S., Al-Sa`ed, R. 2021. Evaluation of advanced chemical oxidation process for the pretreatment of mixed agro-food industrial wastewaters in Nablus, Palestine. In: OKP First Palestinian- Dutch Int. Conference in WASH and CSA, 23-24 September, 2021, An-Najah National University, Nablus, Palestine.
3. Siam, F., Al-Sa`ed, R. 2021. Removal efficiency of microbial pathogens and enteric viruses at three sewage works for municipal wastewater treatment and reuse in agricultural irrigation. In: OKP First Palestinian- Dutch Int. Conference in WASH and CSA, 16-17 November, 2021, An-Najah National University, Nablus, Palestine.
4. Hijawi, M., Al-Sa`ed, R. 2019. Assessment of biosolids stabilization degree at three different WWTPs pertinent to Palestinian guidelines for use in land application. In: UPWSP 5th Conference Towards Integration in Fields of Water and Energy for Better Green Communities. 29-30 April 2019 Ramallah, Palestine.
5. Ahmad, M., Al-Sa`ed, R. 2018. Industrial pollution reduction practices and wastewater governance analysis. In: PADUCO2 Workshop on Promoting Applied Integrated Practices and Technologies for Sustainable Industrial Wastewater Management in Palestine. 15-16.10.2018, Birzeit University, Birzeit, Palestine.
6. Al-Sa`ed, R. 2018. Natural treatment systems for reclaimed water use and bioresource recovery: A Palestinian experience. In: PADUCO2 Workshop on Algal Bacterial Systems for Wastewater Treatment. 7.2.2018, PTUK Tulkarm, Palestine.
7. Al-Sa`ed, R. 2017. Will cutting-edge technologies enhance wastewater management services? A Palestinian experience. In: UPWSP 4th Annual Water Conference Towards Innovative Technology in Palestinian Water Sector. 27-28 Nov. 2017, Ramallah, Palestine.
8. Al-Sa`ed, R., Khlief, I. 2017. Reclaimed water use in irrigation: do we need stringent reuse standards to enhance water use and reduce climate impacts? In: Proceedings Int. BERC 5th Scientific Conference on Wastewater Reuse for Irrigation of Non-Food Crop Plants in Palestine, 14.10.2017. Nablus, Palestine.
9. Abuayyash, M., Al-Sa`ed, R. 2016. Cost-benefit analysis of beneficial uses of reclaimed water: three case studies from Palestine. In: Proceedings National Seminar Wastewater Reuse in Palestine: Reality and Challenges. 21 Dec. 2016, Tulkarm, Palestine.
10. Thaher, T., Al-Sa`ed, R. 2016. Evaluation of heavy metals removal in different municipal sewage works for wastewater treatment and effluent reuse. In: Proceedings National Seminar on Wastewater Reuse in Palestine: Reality and Challenges, 21 Dec. 2016, Tulkarm, Palestine.
11. Al-Sa`ed, R. 2016. Effects of olive mill wastewater discharge on Altireh membrane bioreactor (MBR) facility: challenges and solutions. In: Proc. Conf. on Best Practices in Water and Sanitation towards an Improved Water Service in Palestine, 5-6 Dec. 2016, Jericho, Palestine.
12. Abdo, E., Al-Sa`ed, R. 2015. An innovative bioreactor for denitrification of nitrate-rich brackish groundwater using whey. In: Proceedings PADUCO conf., 22 Feb. 2015. Birzeit University, Birzeit, Palestine.
13. Lousada-Ferreira, M., Al-Sa`ed, R., van Lier, J. 2015. Membrane Bioreactor: Present and Future applications in Palestine. In: Proceedings PADUCO conf., 22 Feb. 2015. Birzeit University, Birzeit, Palestine.
14. Al-Sa`ed, R. 2013. Sustainable management of olive mill wastewater in Palestine: Challenges and opportunities. 2nd International Conference on Olive in Palestine, 25-26 November 2013, Palestine Technical University-Kadoorie, Tulkarm, Palestine
15. Hamrasheh, B., Abu-Madi, M., Mahmoud, N., Al-Sa'ed, R. 2012. Impacts of Potential Climate Change on Rainfed Agriculture in Jenin District, Palestine. In Conference Proceedings: Water Crisis and Agricultural Development in Palestine, 21-22 May 2012, Palestine Technical University, Khadoorie, Palestine.

16. Al-Sa`ed, R. 2011. Achieving sustainable wastewater treatment facilities (WWTFs) under occupation. Proc. Sustainable Development - a Global Challenge, 18 -20 November 2011, Birzeit University, Birzeit, Palestine.

17. Al-Sa`ed, R. 2009. Impacts of the Israel`s water policy on Palestinian water sector: Deny, degrade, delay and deduct. Proc. 2nd Int. conference on the Palestinian Environment, 13-15 Oct., 2009, An-Najah National University, Nablus, Palestine.

18. Al-Sa`ed, R., Ramlawi, A., Salah, A. 2009. A Survey on utilization of agricultural pesticides in selected Palestinian districts. Proc. 2nd Int. conference on the Palestinian Environment, 13-15 Oct., 2009, An-Najah National University, Nablus, Palestine.

19. Al-Sa`ed, R., Hind, M., Tomaleh, N. 2008. Albireh wastewater treatment plant: reliability of operation and effluent quality for reuse. Proc. 1st Symposium on Wastewater Reclamation and Reuse for Water Demand Management in Palestine, 2-3 April, 2008, Birzeit University.

20. Abu-Madi, M., Al-Sa'ed, R., Braadbaart, O., Alaerts, G. 2008. Financial performance of wastewater treatment technologies frequently used in Jordan and Tunisia. Proceedings 1st Symposium on Wastewater Reclamation and Reuse for Water Demand Management in Palestine, 2-3 April 2008, Birzeit University.

21. Deek, Z., Abu-Madi, M., Al-Sa'ed, R. 2008. Acceptance of rural communities in Ramallah and Al-Bireh Governorate to use treated wastewater. Proceedings 1st Symposium on Wastewater Reclamation and Reuse for Water Demand Management in Palestine, 2-3 April 2008, Birzeit University.

22. Swaileh, K., Muhammad, R., Al-Sa`ed, R., Abu Heleu, R. 2008. Health risks from microbial growth and biofilms in drinking water distribution systems in Palestine. Proc. 2nd Int. conference on Sustainable Development and Management of Water in Palestine, Amman, Jordan.

23. Al-Sa`ed, R., Mahmoud, N. 2005. Rapid impacts assessment of urbanization and Jewish colonies on major streams in the West Bank. Proc. Int. Conf. on Water: Values and Rights, May 2-4, Ramallah, Palestine.

24. Abu-Madi, M., Al-Sa'ed, R. 2005. Comparative analysis of wastewater treatment costs in Jordan and Tunisia. Proc. Int. conference on water: Values and right, May 2-4, Ramallah, Palestine.

25. Samhan, S., Al-Sa`ed, R., Mahmoud, N. 2005. Pathogens removal in UASB-septic tanks and Albireh oxidation ditch wastewater treatment plant. Proc. Int. conf. on water: Values and right, May 2-4, Palestine.

26. Ghannam, M., Al-Sa`ed, R., Zimmo, O. 2005. Assessment of recycling perspectives for olive mill solid waste in Palestine. In: Proc. Int. Conf. on Water: Values and Rights, May 2-4, 2005, Ramallah, Palestine.

27. Zimmo, O., Al-Sa`ed, R. 2005. Nitrogen transformation and wastewater treatment efficiency in algae-based and duckweed-based stabilization ponds. In: Proc. Int. Conf. on Water: Values and Rights, May 2-4, 2005, Ramallah, Palestine.

28. Abu-Madi, M., Al-Sa`ed, R., Braadbart, O., Alaerts, G. 2000. Selection criteria for appropriate sanitation in the Palestinian rural and semi-urban communities. Proc. Int. Symposium on Water Sector Capacity Building and Research in Palestine, Birzeit University, Dept. of Civil Engineering, Birzeit, Palestine.

29. Alawneh, M., Al-Sa'ed, R.M. 1997. Review on water quality in Palestine. Groundwater and surface water. Proceedings of the 2nd Conference on Energy and Environment, An-Najah University, Nablus, Palestine

Refereed Book Chapters

1. Ali, R., Al-Sa`ed, R. 2018. Economic Feasibility of a Biogas System in a Small Palestinian Poultry Farm. In: A. Kallel et al. (Eds.). *Recent Advances in Environmental Science Euro-Mediterranean and Surrounding Regions. Advances in Science, Technology & Innovation*. Switzerland: Springer Int. Publishing AG. pp. 1541-3.

2. Al-Sa'ed, R., Al-Hindi, A. 2013. Challenges of transboundary wastewater management for Palestinian communities along the Green Line-The Israeli-Palestinian border. In: S. Megdal, B. Varady and S. Eden, (Eds.), *Shared Borders, Shared Waters: Israeli-Palestinian and Colorado River Basin Water Challenges. London, UK: CRC Press*, pp. 203-220.

3. Al-Sa'ed, R., Atallah, F., Abdel-Shafy, H., Mimi, Z., Sayadi, S., Criscuoli, A., Schories, G. 2010. Identification and mapping of the research organizations in the field of membrane technology. In: A. Lorenzo and A. Vega

(Eds.), *Membrane Technology in Water Treatment in the Mediterranean Region: PROMEMBRANE*. IWA Publications. Pp. 18-24.

4. Criscuoli, A., Figoli, A., Al-Sa`ed, R., Drioli, E. 2010. Guideline of action regarding future research and development in the field of MT. In: A. Lorenzo and A. Vega (Eds.), *Membrane Technology in Water Treatment in the Mediterranean Region: PROMEMBRANE*. IWA Publications. Pp. 25-36.
5. Hernández, J., Schories, G., Al-Sa`ed, R. 2010. Promotion and diffusion of MT research and development in the Mediterranean area. In: A. Lorenzo and A. Vega (Eds.), *Membrane Technology in Water Treatment in the Mediterranean Region: PROMEMBRANE*. IWA Publications. Pp. 38-42.
6. Abu-Madi, M., Al-Sa'ed, R., Mahmoud, N., Burnat, J. 2010. Comparative socioeconomic study of 26reywater and cesspit systems in Ramallah, Palestine. In: S. McIlwaine and M. Redwood (Eds.), *Greywater Use in the Middle East: Technical, social, economic and policy issues*. IDRC (Canada).
7. Samhan, S., Al-Sa`ed, R., Assaf, K., Friese, K., et al. 2010. Wastewater management overview in the Occupied Palestinian Territory. In: D. Darcelò and M. Petrovic (Eds.,), *The Handbook of Environmental Chemistry*: 1-20, DOI: 10.1007/698_2010_64. Springer-Verlag, Berlin, Heidelberg.
8. Swaileh, K., Muhammad, R., Al-Sa`ed, R., Abu Heleu, R. 2008. Health risks from microbial growth and biofilms in drinking water distribution systems in Palestine. In: A. Aliewi, K. Assaf and J. Jayyousi (Eds.,). *Sustainable Development and Management of Water in Palestine*, UNESCO Cairo Office. Pp. 489-496.
9. Zimmo, O., Petta, G., Mahmoud, N., Al-Saed, R., Mimi, Z., and Abu-Madi, M. 2005. Prospects of efficient wastewater management and water reuse in Palestine : country study. *Efficient Management of Wastewater, its Treatment and Reuse in the Mediterranean Countries*.

Graduate (M.Sc.) Main Supervision

Track A: MSc Thesis Supervision [Finished]

1. Salim Yahyia. 2000. Effects of Environmental Parameters on Nitrification and Denitrification in Duckweed Based and Algae Based Stabilization Containers
2. Hani Ayed. 2000. Development of an Integrated Water Management Strategy for Ramallah Rural Areas.
3. Musbah Tahboub. 2000. Evaluation of Wastewater Treatment Alternatives for Hebron City.
4. Arqam Hijawi. 2001. Investigation of Biological Nitrogen Removal in Natural Systems.
5. Eyad Yaqob. 2001. Nitrogen Transformations in Algae and Duckweed-based Wastewater Treatment.
6. Amin Nwahda. 2001. Production of Biologically Stable Water through Process Performance Enhancement of Jericho Water Treatment Plant in Palestine.
7. Johny Theodory. 2002. Performance Evaluation And Process Optimization of Talitha Kumi WSP`s.
8. Mohammad Amarneh. 2002. The Role of Wastewater Characteristics on the Selection of Anaerobic Treatment Technology.
9. Dima Nazer. 2002. Development of a Modified Method for Reducing the Environmental Impact and Economics of the Unhairing-Liming Process: Leather Tanning Industry.
10. Abdul-Halim Fuqaha. 2003. Development of Two Stage Biofilter as a Post Treatment Option for UASB Pre-treated Domestic Wastewater.
11. Manal Abed. 2003. Assessment of UASB Technology as a Pretreatment Stage for Domestic Wastewater
12. Nuha Ghneim. 2003. Quantification of Nitrification and Denitrification Rates in Algae Based and Duckweed Based Waste Stabilization Ponds.
13. Taghrid Hithnawi. 2004. Septage Characterization and Impact Assessment on the Treatment Efficiency of Albireh Wastewater Treatment Plant.
14. Sana Mubarak. 2004. Socio-Cultural and Economical Analysis of OSS in Ramallah District.
15. Abdel Fattah Hassan. 2004. Optimization of the Specific Methanogenic Activity (SMA) Assay.
16. Naser Abu Sharbak. 2004. Marginal Opportunity Cost Pricing For Wastewater Disposal: A Case Study.

17. Subhi Samhan. 2005. Domestic WWT Using UASB-Ponds: Comparison of Pathogens Removal Efficacy.
18. Ghassan Daghra. 2005. Pollution and Water Quality Assessment of Wadi Al Qilt.
19. Nimmer Ibrahim. 2006. Development of Low-cost Biofilters to Enhance the Quality of Anaerobically Pre-treated Domestic Effluent.
20. Muneer Sa`ad. 2006. Developing an Environmental Policy: BZU a Case Study
21. Manal Shkukani. 2008. Development of an Environmental Management System Using Cleaner Production in Palestinian Dairy Industries.
22. Dima Judeh. 2009. Impact Assessment of Urbanism on the Palestinian Environment: A Case Study of Municipal Landfills in Ramallah-Albireh District.
23. Nasser Samarah. 2010. Heavy Metals Concentrations in Biosolids of Al-Bireh Sewage Treatment Plant and Impacts on Crop Growth and Productivity.
24. Mahmoud Mafarjeh. 2010. Feasibility of a Windrow Composting Pilot for Domestic Organic Waste Recycling in Beit Liqia Village-Palestine.
25. Eman Hassan (2010) Understanding the Pathogens-Sludge Bulking Relationship in Al-Bireh WWTP.
26. George Yerousis (2011) Techno-Economic Feasibility of Biosolids Recycling: A Pilot for Biobricks Production.
27. Wisam Arafat. 2012. Role of Public Awareness Towards Wastewater Recycled Use Acceptance for Agriculture.
28. Malek Abu Alfeilat. 2013. Role Feasibility of Pretreatment Options for the Liquid Waste from Selected Stone Cutting Industries in Hebron District.
29. Firas Mater. 2013.PPP for Energy and Sludge Management in Jordanian WWTPs-Madaba a Case Study.
30. Jalal Bsharat. 2014. Feasibility of Membrane Based Treatment Technologies for Brackish Water Desalination and Effluent Reclamation in Jericho
31. Hala Barhoumi. 2015. MYWAS/WEAP Model: Tool for Water Resources Management Tulkarm Governorate.
32. Royada Ali. 2015. Biogas from Poultry Manure Using a Novel Solar Assisted System.
33. Dalia Jaradat. 2015. Reality and Challenges of WQM Policy in Palestine.
34. Emil Abdo. 2016. Denitrification of NO_3-Rich Groundwater Using Whey.
35. Mohmad Abu Ayyash. 2016. Cost-Benefit Analysis of Beneficial Uses of Reclaimed Water: Three case studies from Palestine.
36. Ali Odeh. 2016. Windrow Pilot Scale Trials for the Assessment of Organic Waste Composting to Improve the Sustainability of Urban Cities.
37. Mazen Nazzal. 2017. Evaluation of Operational Stress Conditions on a Pilot Scale MBR for Wastewater Treatment and Reuse.
38. Reem Remawi. 2017. Evaluation of the Legal and the Techno-Economic Aspects of Sustainable Sludge Management in Palestinian Urban Sewage Works.
39. Tareq Thaher. 2018. Evaluation of Heavy Metals Removal in Different Municipal Sewage Works for Wastewater Treatment and Effluent Reuse.
40. Maisah Hijawi. 2018. Evaluation of the Stabilization Degree of Different Biosolids Produced from Selected Palestinian Sewage Works for Agricultural Utilization.
41. Fuheid Siam. 2019. Efficiency of Pathogens Removal in Three Different Sewage Works for Municipal Wastewater Treatment for Agricultural Irrigation.
42. Saja Younis. 2019. Assessment of Pre-Treatment of Mixed Agro-Food Industrial Wastewaters Using Advanced Oxidation Processes.
43. Ahmad May. 2020. Enhancing Governance of Industrial Wastewater Management in Two Palestinian Dairies Using Cleaner Production Principles and Water Footprint Software.
44. Diab Ammar. 2020. Monitoring and Evaluation of a UASB System for Wastewater Pretreatment from a Palestinian Poultry Slaughterhouse

45. Odai Attili. 2020. Evaluation of a Natural Phytoremediation System in Wadi Zomer for Industrial Pollution Reduction from Nablus West, Palestine.
46. Aseel Najajra. 2021. Efficacy of UASB System for the Pretreatment of Mixed Industrial Wastewaters from Poultry Slaughterhouse and Olive Mill.
47. Hiba Faqeeh. 2021. Post-treatment of Anaerobically Pretreated Mixed Industrial Wastewater Using a Pilot Constructed Wetland System.
48. Mohammad Hussin. 2021. Comparative Assessment of Pilot Scale Ecotechnologies for Wastewater Treatment and Effluent Ruse from a Poultry Slaughterhouse.

Track A: Ongoing M.Sc. Research Studies

1. Tayseer Barghouthi. 2020. Synthesis and Effects of Locally-made Hydrogel on Plant Available Water and Growth of Corn and Pearl Millet under Mediterranean Conditions.
2. Hareth Sulayeh. 2021. Efficiency evaluation of Alreehan MBR facility and the feasibility of treated water reuse in agricultural irrigation.
3. Omar Abuawwad. 2021. Capacity and Performance Assessment of Palestinian Water and Sanitation Service Providers in Management and Operation of Wastewater Treatment Plants.

Track B: Research Seminar *(Selected Seminar Topics in the last 20 years)*

1. Abu-Zaid, S., Al-Sa`ed, R. 2001. Odour Emission from Sewage Works: Control and Minimization Options.
2. Mustafa, A., Al-Sa`ed, R. 2001. Denitrification in trickling filters: technological aspects and costs.
3. Al-Sharif, S., Al-Sa`ed, R., 2002. Solid Waste Minimization Strategy and Applicability in the West Bank
4. Mustafa, A., Al-Sa`ed, R. 2002. Effluent Pre-treatment Options for Tannery Industries in Hebron City: Technical and Economic Aspects.
5. Ghannam, M., Al-Sa`ed, R. 2003. Disposal Problems and Feasible Treatment Methods of Olive Mill Wastewater in Palestine.
6. Saleh, M., Al-Sa`ed, R. 2003. Health Aspects Of Wastewater and Sludge Management.
7. Fitiani, A., Al-Sa`ed, R. 2004. Operation & Maintenance Experiences in Sewer Networks.
8. Ghannam, M., & Al-Sa`ed, R. 2004. Disposal Problems and Feasible Treatment Methods of Olive Mill Wastewater in Palestine
9. Abu Baker, F., Al-Sa`ed, R. 2004. Household Water treatment Units & People Awareness for its use in Jenin Governorate.
10. Sanduka, A., Al-Sa`ed, R. 2004. Review on Agricultural Use of Stabilized Sewage Sludge (Biosolids).
11. Salah, M., Al-Sa`ed, R. 2005. Utilization Potential of Treated and Stabilized Sludge from Al-Bireh Wastewater Treatment in Agricultural Purposes.
12. Tarifi, S., Al-Sa`ed, R. 2005. Recycling of scrap tires as a tool for pollution minimization in Palestine.
13. Al-Muhtaseb, I., Al-Sa`ed, R. 2005. Recycling Feasibility of Domestic Solid Waste: A Case Study.
14. Adwan, A., Al-Sa`ed, R. 2006. The Role of Membrane Technology in Wastewater Treatment in the Mediterranean Region.
15. Judah, W., Al-Sa`ed. R. 2006. Evaluation of Biological Processes in Subsurface Flow Constructed wetlands Treating Domestic Sewage: Bani Zaid a case study.
16. Stephan, M., Al-Sa`ed, R. 2007. Endocrine Disruptor Removal from Wastewater Using Membrane Bioreactor and Membrane Filtration Technology.
17. Salah, M., Al-Sa`ed, R. 2007. Health Impact Assessment of Treated Wastewater and Sludge Reuse in Agricultural Applications.
18. Habash, I., Al-Sa`ed, R. 2008. Environmental Impact Assessment on the Proposed Red Sea - Dead Sea Conduit (RDSC).

19. Halayqa, A., Al-Sa`ed, R. 2008. Membrane Technology Applications for Water Treatment in Arabian Gulf States. Experts and Literature Database.
20. Nasser, A., Al-Sa`ed, R. 2009. Environmental Assessment of Cesspits and Septic Tanks Impact on Groundwater.
21. Ramadan, Y., Al-Sa`ed, R. 2009. Impacts Identification and Quantification of Onsite Sanitation Systems on Groundwater Wells Using Modelling and Risk Analysis.
22. Qutub, M., Al-Sa`ed, R. 2010. Economic Analysis of Brackish and Sea Water Desalination Using RO.
23. Stephan, M., Al-Sa`ed, R. (2010) Endocrine Disruptor Removal from Wastewater Using Membrane Bioreactor and Membrane Filtration Technology.
24. Hamarshe, F., Al-Sa`ed, R. 2011 Current Status in Wastewater Treatment, Reuse and Research in Palestine – a Review.
25. Musleh, A., Al-Sa`ed, R. 2012. Peace Building Projects for Joint Wastewater Management Along the Green Line: Post-Evaluation of Case Studies.
26. Abu Baker, S., Al-Sa`ed, R. 2012. Regional Facilities for Wastewater Treatment and Reuse on the Palestinian Water Policy-Tulkarm a Case Study
27. Taha, M., Al-Sa`ed, R. 2013. Feasibility of Small Scale Renewable Desalination in the Jordan Valley.
28. Diab, I., Al-Sa`ed, R. 2014. Assessment of air Pollution in Palestine.
29. Askar, H., Al-Sa`ed, R. 2014. Feasibility of Retrofitting Alternatives for the WWTP at Birzeit University.
30. Marbou, W., Al-Sa`ed, R. 2015. An Integrated Approach of Water and Wastewater Management in the Soft Drink Industry: A case study in Ramallah City.
31. Alsadeq, M., Al-Sa`ed, R. 2015. Strategies Development for Optimal use of Agricultural Pesticides.
32. Shaheen, S., Al-Sa`ed, R. 2016. Review and Evaluation of Alternative Treatment and Disposal Techniques for Sludge Management.
33. Tahboub, M., Al-Sa`ed, R. 2016. Enhancement of Methane Generation in Anaerobic Digesters of Organic Wastes and Wastewater.
34. Tahboub, M., Al-Sa`ed, R. 2017. Evaluation of Renewable Energy (Solar & Biogas) and Life Time Cycle.
35. Hashlamoun, M., Zimmo, O., Al-Sa`ed, R. 2019. Conduction of an Industrial Cadastre for Three Agrifood Industries In Nablus-West, Palestine.
36. Hamouda, L., Al-Sa`ed, R. 2020. Feasibility of Solar Energy for Power Consumption Reduction at Three Selective Sewage Plants.
37. Abubaker, E., Al-Sa`ed, R. 2020. Environmental Auditing of Two Selected Beverage Industries in Palestine.
38. Abu Ghaboush, F., Al-Sa`ed, R. 2020. Best Management Practices for the Reduction of Stormwater Runoff Pollution from Three Palestinian Gas Stations.
39. Haymouni, M., Al-Sa`ed, R. 2020. Feasibility of Decentralized Treatment Technologies for Industrial Wastewater from the Beverage Sector in Palestine.
40. Abu Ghaboush, F., Al-Sa`ed, R. 2020. Risks Assessment for the Presence of SARS COV-2 in Palestinian Municipal Wastewater.
41. Al-Juneidi, A., Al-Sa`ed, R. 2021. Challenges and Opportunities of Wastewater Treatment for Agricultural Reuse in Palestine.
42. Qadan, H., Al-Sa`ed, R. 2021. Estimation of Carbon Dioxide Footprint in Urban Centralized Wastewater Treatment Plants: A Comparative Study of Jericho and Nablus West WWTPs.
43. Samara, R., Al-Sa`ed, R. 2021. Challenges and Opportunities of Urban Water Reuse from Nablus West STP.
44. Abumadi, A., Al-Sa`ed, R. 2021. Residents' Perceptions of Agricultural Water Reuse in Anza and Beit Dajan Communities.
45. Amro, T., Al-Sa`ed, R. 2021. Rainwater Harvesting Using Geographic Information System (GIS) Case Study: Ramallah and Al-Bireh Governorate, Palestine.

Academics, invited lecture to Conferences, Workshops, Webinars, and Google Scholar

Since 1983, several invited lectures presented at local, regional and international conferences, workshops and online presentations (webinars).

Reviewer for International Funding Agencies and Scholarly Journals

Reviewer to various international, regional and local organizations including:

- World Bank, USAID, CIM, GIZ, Ministry of Higher Education, Palestinian Water Authority, Environmental Quality Authority, Palestinian Academy for Science & Technology,

Reviewer for various international and regional journals including (number of assignments):

- Journal of Environmental Engineering (7), Bioresource Technology (2), Desalination (5), Desalination & Water Treatment (15). Water Research (6), Water Science & Technology (5), Water Supply (2), Water International (4), CLEAN - Soil, Air, Water (5).
- Waste Management (3), Waste Management and Research (4), Journal of Environmental Management (3), International Journal of Environmental Studies (12), Journal of Cleaner Production (5), International Journal of Environmental Science and Technology (5). Dirasat Journal: Engineering Sciences (2), Arabian Journal for Science & Engineering (2), Sustainability (3).

Administration/Services

Served in the following Departmental- and College levels as well as in diverse University Committees:

i) University Standing Committees

1. Member of the Academic Council Committee since 1997
2. Member, revision of PhD program at Birzeit University, formed by the Rector, Jan 2018.

ii) University Ad hoc Committees

1. Chair of the Environmental Policy Committee of Birzeit University, formed BZU Rector, June 2018.
2. Chair of the EIA Committee Hot Blend Asphalt Factory in Birzeit Town formed by BZU Rector July 2019.

iii) Department/College/Institute/Centre Committees

1. MSc Program in Water and Environmental Engineering [WEEN], chair
2. MSc Program in Water and Environmental Sciences [WESC], chair
3. MSc Program in Environmental Biology [ENVBIOL], member, Faculty of Science
4. Graduate Admissions Committee, chair, Faculty of Graduate Studies
5. Recruitment Committee, chair, Institute of Environmental and Water Studies (EWS)
6. Testing Laboratory Centre, Birzeit University Committee member
7. Laboratory and Safety Committee, chair, IEWS
8. Curriculum Development Committee, chair, IEWS
9. Environmental Policies, and EIA studies, Presidential Committee, Chair, Birzeit University
10. Faculty Council Committee, Faculty of Engineering and Technology, Birzeit University

References

Available upon request.