Dr. Abdul-Sattar Nizami

Professor (Associate)
Sustainable Development Study Centre (SDSC)
Government College University, Lahore, Pakistan

Adjunct Professor Korea University, Seoul, South Korea
Adjunct Professor Jiangsu University, China
Distinguished Professor King Abdulaziz University Jeddah, Saudi Arabia
Associate Editor Energy & Environment (Sage – Impact Factor 4.8)
Fellow of Research Stimulus Fund, Ireland
Co-Editor-in-Chief Elsevier Book Series on Biomass and Biofuels
Member of Asian Federation of Biotechnology (AFOB)

Email: asnizami@gcu.edu.pk; asnizami@korea.ac.kr; nizami_pk@yahoo.com
Personal Website: https://abdulsattarnizami.academia.edu/
Google Scholar: http://scholar.google.ca/citations?user=G53xs9YAAAAJ&hl=en
ResearchGate: https://www.researchgate.net/profile/Dr_Abdul_Sattar_Nizami
ORCID: http://orcid.org/0000-0003-3294-9256
LinkedIn: https://www.linkedin.com/in/abnizami?trk=nav_responsive_tab_profile_pic

Biography

- 18 years of **academic leadership, R&D, teaching, training, and project management** experience.
- Recognized as a **Role Model by Times Higher Education (THE)** for contributing to King Abdulaziz University's **No.1 Arab World ranking** in 2019.
- Ranked among **Top 2% Scientists Worldwide** in Energy, Environment, and Climate Change (Stanford University, USA: 2020–2025).
- Awarded **Adjunct & Distinguished Professorship** from China, South Korea, and Saudi Arabia's top-ranked Universities.
- **Evaluator** for international research funding bodies: European Commission, ANR (France), NCN (Poland), KACST & RDI (Saudi Arabia), Mitacs (Japan & Canada), and Research Development Support (Qatar).
- Developed a research funding portfolio (approved and funded) of **more than 526 million PKR** as a principal and co-investigator.
- **Founded and headed** the Solid Waste Management Unit at King Abdulaziz University, Saudi Arabia, and was a **Pioneer** of renewable energy, waste-to-energy, and waste biorefinery research in Saudi Arabia.
- Lead author contribution to the **UNEP Waste Management Outlook for West Asia (2019)**.
- PhD from University College Cork, **Ireland**; MSc. Eng. from Chalmers University of Technology, **Sweden**, Postdoctoral Fellow from University of Toronto, **Canada**.
- Published **200+ peer-reviewed journal papers**, delivered **50+ invited talks & training,** Citations **>21,700**, Impact Factor **≥1900**, **h-index: 77**, **i10-index: 191**.
- **Editorial Leadership**: Associate Editor (Energy & Environment, Frontiers in Energy Research, Detritus); Editorial Board Member (Sustainability, Bioresource Technology Reports, Energy Sources Part B, Discover Sustainability).
- Co-Editor-in-Chief, **Elsevier Book Series on Biomass and Biofuels**; Guest/Lead Editor for multiple special issues in **Elsevier, MDPI, Springer, Wiley** Journals.
- Extensive teaching and supervision at **BSc, MSc, and PhD levels** in Pakistan, Saudi Arabia, and Canada.
- Trainer for **Civil Services Academy (Pakistan Administrative Service)** on Climate Action and Sustainability.
- Active science communicator with freelance articles in **Forbes, Arab News, Saudi Gazette, EnviroCities, EcoMENA, and BioEnergy Consult**.
- Established collaborative projects and research papers with more than **170 research institutions and departments worldwide across 35 countries**, significantly enhancing the University's international ranking and academic reputation.

Education

- **Ph.D. Civil and Environmental Engineering** 2008 –2011
  Green Grass: Developing Grass for Sustainable Gaseous Biofuel. **University College Cork (UCC)**, **Ireland**

- **Master of Science in Engineering (MSc.Eng.)** 2005 –2007
  Applied Environmental Measurement Techniques, **Chalmers University of Technology**, **Sweden**

- **Bachelor of Science B.Sc. (Hons.)** 2001-2004
  Environmental Sciences, **University of the Punjab**, **Lahore**, **Pakistan**

Work Experience

- **Professor (Associate)** 2019 – Present
  Sustainable Development Study Center (SDSC), **Government College University, Lahore, Pakistan**.
  The teaching and research at SDSC are focused on alternative fuels, waste-to-energy, solid waste management, data analysis, academic writing, research methods in environmental sciences, and climate change.

- **Professor (Adjunct & Distinguished)**
  - Graduate School of Energy and Environment, Korea University, South Korea (2024 – Present)
  - Jiangsu University, China (2023 – Present)
  - Distinguished Professor, King Abdulaziz University, Jeddah, Saudi Arabia (2021– 2022)

  In these adjunct and distinguished faculty roles, I have actively collaborated with international colleagues on publishing high-impact journal articles, preparing joint grant proposals, and delivering specialized training and lectures. I have also contributed to curriculum development and academic improvements, strengthening research capacity and fostering global academic linkages.

- **Assistant Professor and Head of Solid Waste Management Unit** 2014 –2019
  Center of Excellence in Environmental Studies (CEES), **King Abdulaziz University**, **Saudi Arabia**.
  The research and teaching were focused on developing renewable and alternative fuel systems such as pyrolysis (fuel oil), transesterification (biodiesel), algae biofuel (biodiesel), and composting (organic fertilizer) from high-solid-content feedstock such as the organic fraction of municipal solid waste (OFMSW), plastic, and animal-related waste. Dr. Nizami was a pioneer in initiating and advancing research on renewable energy, waste-to-energy, and waste biorefinery in Saudi Arabia, marking the first time such efforts had been undertaken.

- **Member of Executive Committee for KAU International Indexed Journals and Books**
  King Abdulaziz University, **Saudi Arabia**. March 2019 – December 2019
  Playing an active role as a member of the executive committee to monitor, regulate, and formalize all the University-indexed Journals and Books. The committee was authorized to develop policies and recommendations to regularize current journals, initiate new Journals, and raise the University's research and scholarly standards. Prof. Yusuf Al Turki, the vice president of Higher Studies and Research at King Abdulaziz University, chaired the executive committee.

- **Postdoctoral Fellow (PDF) in Alternative Fuels, Life Cycle Studies** 2011 –2013
  Department of Chemical Engineering & Applied Chemistry, **University of Toronto**, **Canada**.
  18th World Times University Rankings 2021

The postdoctoral fellowship research focused on the life cycle, economic, environmental, and policy analysis of alternative fuels, the generation of bioenergy from high-solid-content feedstocks, and the design of biorefinery systems for biofuels and value-added products.

- **Research Associate** 2011
  Environmental Research Institute (ERI), **University College Cork, Ireland**.
  The Irish Department of Agriculture, Food and Marine funded the project, 'Developing grass for sustainable renewable energy generation and value-added products' under the National Development Plan 2007-2013. The collaborating institutions were Teagasc Grange and Queen's University Belfast (QUB).

Administrative and Leadership Roles

- **Establishing & Leading Research Unit**
  - Founded and headed the Solid Waste Management Unit at the Center of Excellence in Environmental Studies (CEES), King Abdulaziz University, Saudi Arabia – the first research initiative of its kind in the Kingdom**.**
  - Built research team, waste-to-energy laboratory, and training programs to support waste-to-energy and biorefinery research.

- **Executive Committee Member**
  - Served on the Executive Committee for KAU International Indexed Journals and Books (2019), formalizing policies, launching new journals, and upgrading scholarly standards.

- **International Project Leadership**
  - Principal/Co-Principal Investigator and Consultant in numerous national & international funded projects (HEC, PSF, KACST, World Bank, UNEP).
  - Key contributions to Vision 2030 energy and sustainability projects in Saudi Arabia.

- **Training & Policy Advisory**
  - Trainer for Civil Services Academy (Pakistan Administrative Service) on Climate Action and Sustainability.
  - Advisory roles in policy development for Punjab Climate Change Policy & Action Plan (2022–23) and regulations on single-use plastics (2023).
  - Evaluator for international research funding bodies: European Commission, ANR (France), NCN (Poland), KACST & RDI (Saudi Arabia), Mitacs (Japan), and Research Development Support (Qatar).

- **Conference & Workshop Leadership**
  - Organizer/Scientific Committee Member for leading international conferences: Sustainable Solid Waste Management Conference series (Greece, Turkey, Hong Kong)**,** International Conference on Alternative Fuels (ICAFEE)**,** and regional environmental workshops**.**

Consultancy, Advisory & Strategic Projects

1. **West Asia Solid Waste Outlook Report**, **UNEP**-supported document.
   Client: Centre for Environment and Development for the Arab Region and Europe (CEDARE), **Egypt**. Status: *Completed*.

2. **Solid Waste Management in Jeddah and Dammam (P 143450)**
   Technical report. Client: World Bank, United States of America (**USA**). Status: *Completed.*

3. **An Overview of the Waste Management Sector in the Kingdom of Saudi Arabia**
White policy paper. Client: Averda, United Kingdom (**UK**). Status: *Completed.*

4. **Municipal Solid Waste (MSW) Management in the Kingdom of Saudi Arabia**
Technical report. Client: Roland Berger GmbH, **Germany**. Status: *Completed.*

5. **Closure and Post-Closure Plan for Waste Management Facilities in Abqaiq Area**
Client: Saudi Company for Environmental Works Ltd. (SEW), **Saudi Arabia**. Status: *Completed.*

6. **Waste Recycling Potential Contribution to the Kingdom of Saudi Arabia 2030 Vision**
Comprehensive report. Client: Arab Paper Manufacturing Co. Ltd. (WARAQ), **Saudi Arabia**. Status: *Completed.*

Research Projects as Principal and Co-Investigator 2014 - Present

1. **Indigenous Technology Development for Pilot-scale Production of Water Purification and Desalination Membranes**.
Grant no: 20-TTSF-196/RGM/R&ID/HEC/2021, Funding Agency: Technology Transfer Support Fund (TTSF), World Bank Group.

2. **Innovative Solar Water Desalination System Based on Novel Nanomaterials for Renewable Energy Exploitation**.
Grant no: PSF/CRP/8th/P_UET/Consrum-(06). Funding Agency: Pakistan Science Foundation (PSF), Pakistan.

3. **Developing Advanced Integrated Waste Management Policies to Prevent the Spread of Epidemics such as Corona COVID-19**.
Grant no: GCV19-16-1441. Funding Agency: Deanship of Scientific Research, King Abdulaziz University, Saudi Arabia. Status: *In progress.*

4. **Unlocking the Potential of Renewable and Sustainable Energy Production from Waste in Saudi Arabia: A Way Forward to Achieve Vision 2030**.
Grant no: IFPHI-041-188-2020. Funding Agency: Deanship of Scientific Research, King Abdulaziz University, Saudi Arabia. Status: *Completed.*

5. **Investigation of Clean and Green Energy Resources (hydrogen, biogas, natural gas) to Achieve Sustainable Development Goals**.
Grant no: RGP. 2/189/43. Funding Agency: Deanship of Scientific Research (DSR), King Khalid University, Saudi Arabia.

6. **Development of Waste Biorefinery in Saudi Arabia: A Way Forward to a Biobased Economy** (PI)
Project ID: 14-ENV2592-03, Funding Agency: King Abdulaziz City of Science and Technology (KACST), NSTIP category. Budget: US$ 518,000. Status: *Approved and recommended by AAAS.*

7. **Development of Waste Plastic to Fuel Oil System using Innovative Reforming Catalyst** (PI)
Grant no: 1/S/1433. Funding Agency: Ministry of Education, Saudi Arabia. Status: *Completed.*

8. **Development of Energy Recovery Technologies from Municipal Solid Waste** (PI)
Grant no: 2/S/1435. Funding Agency: Ministry of Education, Saudi Arabia. Status: *Completed.*

9. **Converting Saudi Arabian's Food Waste into Valuable Organic Fertilizer** (Co-I)

Grant no: G-1436-155-411. Funding Agency: Deanship of Scientific Research (DSR) of King Abdulaziz University, Saudi Arabia. Status: *Completed.*

10. **Exploring the Biological and Chemical Methods of Hydrogen Production in Saudi Arabia** (PI)
Grant no: 1/S/1438. Funding Agency: Ministry of Education, Saudi Arabia. Status: *Completed.*

11. **Applications of Zeolite Catalysts in Waste to Energy Technologies** (CO-I)
Grant no: 2/S/1438. Funding Agency: Ministry of Education, Saudi Arabia. Status: *Completed.*

12. **Waste Valorization: Renewable Energy and Green Products** (PI)
Grant no: 1/S/1439. Funding Agency: Ministry of Education, Saudi Arabia. Status: *Completed.*

National and International Appointments

- **As a National Expert, Advisor, and Trainer**
  - Panel of Experts at Environmental Protection Department (EPD), Punjab
    Technical expert on 'Production and Consumption of Single-Use Plastics' Regulations 2023.
  - Advisory Committee Member, SP&IU, EPD, Punjab
    Technical expert on formulation of Punjab Climate Change Policy and Action Plan 2022-2023.
  - Trainer at PAS Campus, Civil Services Academy, Lahore
    Trainer of 46th STP-PAS on Climate Action.

- **As an International Evaluator, Reviewer, and Trainer**
  - European Commission based IF@ULB, **Belgium**
    Evaluator and reviewer for post-doctorate research grant proposals submitted on the subject of waste-to-energy.
  - French National Research Agency (ANR), **France**
    Evaluator and reviewer for research grant proposals submitted under subject category of waste-to-energy and alternative fuels.
  - King Abdulaziz City of Science and Technology (KACST), **Saudi Arabia**
    Auditor and reviewer for research grant projects applied under the National Science, Technology, and Innovation Plan (NSTIP) and General Programs.
  - National Science Centre (NCN) in **Poland**
    Evaluator and reviewer for research grant proposals submitted under the subjects of energy from waste and biofuels.
  - King Abdulaziz University, **Saudi Arabia**
    Trainer at the Department of Environmental Sciences for subjects: Solid Waste Management, Energy, Sustainability, and Hazardous Waste Management.
  - Stellenbosch University, Stellenbosch, **South Africa**
    Examiner for MEng students' research thesis on waste plastics to fuel.
  - Mawhiba Program in **Saudi Arabia**
    Trainer for talented students of Saudi Arabian schools countrywide.

- **As an International Advisory and Scientific Board Member**
  - Fleming Gulf and Nispana Innovative Groups, **Slovakia**, and Nispana Innovative Platforms, **India**
    Selecting and nominating outstanding speakers for national and international conferences/events/workshops through the platforms of Fleming and Nispana.
  - Scientific advisor and reviewer for many international renewable energy-related conferences like CORFU2022 (9th International Conference on Sustainable Solid Waste Management Conference) 15-18 June **Greece**, THESSALONIKI2021 & HERAKLION2019 Conference series in **Greece**, NAXOS2018 (6th International Conference on Sustainable Solid Waste

Management) 13-16 June 2018, **Greece**; BWR2018 (3rd International Conference on Biological Waste as Resource) 17-19 December, **Hong Kong**; IEREK scientific committee; Renewable Energy Sources - Research and Business (RESRB) Conference, **Poland**, 2016 & 2017; World Renewable Energy Congress, 2011; BE2011 (Sweden Bioenergy Technology Conference, 8-11 May 2011, **Sweden**; HERAKLION 2019, 7th International Conference on Sustainable Solid Waste Management, **Greece**, 26–29 June 2019; THESSALONIKI 2020, 8th International Conference on Sustainable Solid Waste Management, 2-5 September 2020, **Greece**; ICAFEE 2020, 5th International Conference on Alternative Fuels, Energy and Environment: Future and Challenges, October, **Turkey**.

- **As a Freelance Writer in Electronic and Printed Media**
  - A freelance writer in International Newspapers such as Arab News, Saudi Gazette, and Makkah-Al-Mukarmmah, **Saudi Arabia**, and magazines like Forbes Magazine, **USA**, and EnviroCities, **UAE**, and most-read Blogs in Middle East countries such as EcoMENA and BioEnergy Consult to highlight local environmental issues with their eco-friendly and sustainable solutions. *For more details, refer to the non-peer-reviewed publication section.*

Editorship

- **Ex-Senior Editor**, Renewable & Sustainable Energy Reviews (Elsevier, IF 16.3) for Biofuels, Waste to energy, and Biomass. 2017 - 2023.
- **Associate Editor**, Frontiers in Energy Research (Frontiers, IF 2.6) for Bioenergy and Biofuels, May 2017 - Present.
- **Associate Editor**, Energy & Environment (Sage, IF 4.8), December 2017 - Present.
- **Associate Editor**, Detritus -Multidisciplinary Journal of Waste Resources and Residues – CISA
- **Editorial Board Member**, Biofuel Research Journal (Alpha IF 13), 2023 - Present.
- **Editorial Board Member**, Bioresource Technology Reports (Elsevier), August 2017 - Present.
- **Editorial Board Member**, Energy Sources, Part B Economics, Planning, and Policy (Taylor & Francis IF 4.6), 2008 - Present.
- **Editorial Board Member**, Sustainability (MDPI IF 3.3) for Bioeconomy of Sustainability, 2021 - Present.
- **Lead Guest Editor**, Special issue/topic on 'Waste biorefineries: future energy, green products, and waste treatment' in Frontiers in Energy Research (Frontiers, IF 2.6), *Completed 2020*.
- **Lead Guest Editor**, Special issue on, 'VSI: NAXOS 2018' in Renewable & Sustainable Energy Reviews (Elsevier, IF 16.3), *Completed 2019*.
- **Guest Editor**, Special issue on, 'VSI: Industrial Waste Hazards' in Journal of Hazardous Materials (Elsevier, IF 11.3), *Completed 2020*.
- **Guest Editor**, Special issue on, 'VSI: Heraklion 2019' in Renewable & Sustainable Energy Reviews (Elsevier, IF 16.3), *Completed 2020*.
- **Guest Editor**, special issue on 'Generating energy and economic revenue through integrated waste and resource management' in Applied Energy (Elsevier, IF 11.2), *Completed*.
- **Guest Editor**, special issue on 'Circular economy and environment with emphasis on waste management & resource valorization' in Science of the Total Environment (Elsevier, IF 8.0), *Completed 2020*.
- **Guest Editor**, Special issue/topic on 'Nanocatalysts in Biofuel Process Optimization' in Frontiers in Energy Research (Frontiers, IF 2.6), *completed* 2021.
- **Guest Editor**, Special issue on, 'VSI: SSWM' in Journal of Bioresource Technology (Elsevier, IF 9.0), June 2021 – July 2021.
- **Guest Editor**, Special issue on, 'VSI: Global Environmental Hazard and Mitigation' in Journal of Hazardous Materials (Elsevier, IF 11.3), May 2021 – July 2021.

- **Guest Editor**, Special issue on "Valorization of Agricultural Residues to Renewable Energy and Value-Added Products" in Agronomy (MDPI, IF 3.7), September 2020 – January 2021.
- **Guest Editor**, Special issue on, 'VSI: Feedstocks&UNSDGs' in Renewable & Sustainable Energy Reviews (Elsevier, IF 16.3), January 2021 - July 2021.
- **Guest Editor**, Special issue/topic on 'Design and Application of Biocatalysts for Biofuel and Bio-based Material Production' in Frontiers in Energy Research (Frontiers, IF 2.6), May 2021-August 2021.
- **Guest Editor**, Special issue/topic on 'Technoeconomic Analysis of Integrated Biorefinery Approaches through Process System Engineering' in Frontiers in Energy Research (Frontiers, IF 2.6), May 2021-August 2021.
- **Guest Editor**, special issue on 'Sustainability of Bioresources, By-Products and Bio-Waste Management in Rural Areas' in Sustainability (MDPI, IF 3.3), December 2021.
- **Guest Editor**, special issue on 'Biochar and Greenhouse Gas Emissions during Livestock Bio-Waste Composting' in Sustainability (MDPI, IF 3.3), November 2021.
- **Guest Editor**, special issue on 'Sustainable Waste-to-Energy Systems' in Energies (MDPI, IF 3.252), April 2020-August 2020.
- **Guest Editor**, Special issue on, 'VSI: Resourcesfrom Wastewater' in Journal of Water Process Engineering (Elsevier, IF 7.0), January 2020 – May 2020.
- **Guest Editor**, special issue on 'Integrated Biorefinery for the Planet's Future' in Renewable Energy (Elsevier, IF 9.1), September 2019 - November 2019.
- **Guest Editor**, special issue on 'Bio-economy and Circular Bio-economy: The role of Life Cycle Assessment and Life Cycle-based Sustainability Assessments' in International Journal of Life Cycle Assessment (Springer, IF 4.8), November 2019 – July 2020.
- **Guest Editor**, special issue on 'Climate Change and Organic Waste as Resource' in Energy & Environment (Sage, IF 4.8), *Completed.*
- **Guest Editor**, special issue on 'Waste biomass utilization for value-added green products' in Current Organic Chemistry (Bentham Science, IF 2.1), *Completed 2018.*
- **Editorial Board Member**, Journal of Renewable Energy Sources - Technology, Business, and Policy. Wojciech Budzianowski Consulting Services, June 2017 - Present.
- **Reviewer Editor**, Journal of Waste Management and Environmental Issues (Clyto), May 2017 - Present.

Training and Professional Development as a Resource Person

- **AS Nizami**. Implementing Zero Waste and Circular Economy Principles in Developing Nations. Department of Occupational & Environmental Health. Lanzhou University, China. 2 January 2024.
- **AS Nizami**. A Successful Journey from Research to Publication. 02 December 2023. Jiangsu University, China
- **AS Nizami**. How can we achieve zero waste and circular economy in Pakistan? Department of Environmental Sciences, University of Gujrat. 15 November 2023.
- **AS Nizami**. Negative Environmental and Health Impacts of Micro-plastics. Strategic Planning and Implementation Unit, Environmental Protection Department (EPD), Faisalabad. 19 December 2023.
- **AS Nizami**. Becoming a transformational leader in higher education contexts. Advanced Teaching and Learning Programme 2023 at Government College University Lahore. 2 August 2023.
- **AS Nizami**. Discussion-Based Teaching: The benefits and limitations of discussion-based teaching, Strategies for facilitating effective classroom discussions, Techniques for encouraging student participation. Advanced Teaching and Learning Programme 2023 at Government College University Lahore. 7 August 2023.
- **AS Nizami**. Advanced Waste Treatment Technologies. School of Energy and Power Engineering, Chongqing University, China. 6 Days Professional Training Workshop. 17 May-1 June 2023.

- **AS Nizami**. Climate Action. Specialized Training to the 46th batch of Pakistan Administrative Service (PAS) Probationary Officers at Civil Service Academy Lahore. 12 May to 12 September 2023.
- **AS Nizami.** A successful Journey from Research to Publication. School of Energy and Power Engineering, Chongqing University, China. 2 Days Professional Training Workshop. 10-11 May 2023.
- **AS Nizami**. From Research to Recognition: Strategies for Publishing and Promoting Your Work on the Global Stage. One Day Training Symposium. Department of Chemistry. University of Engineering and Technology (UET), Lahore. 09 March 2023.
- **AS Nizami**. A successful Journey from Research to Publication. 2 Day Professional Training Workshop. College of Earth and Environmental Sciences (CEES), University of the Punjab, Lahore. 7-8 September 2022.
- **AS Nizami**. A successful Journey from Research to Publication. One Day Training Workshop. Exhibition Hall, Quaid e Azam Library, University of Gujrat. 14 December 2022
- **AS Nizami**. Why was my paper rejected? An editor's perspective. One Day Training Session. Kampus Bintulu Sarawak, University Putra Malaysia, 25 May 2022.
- **AS Nizami**. A successful Journey from Research to Publication. Office of Research Innovation and Commercialization (ORIC), Government College University Lahore, Pakistan. 17 February 2022.
- **AS Nizami**. An Imperative Need for Waste Biorefineries in China to Achieve Circular Bioeconomy. One Day Training Symposium. School of Energy and Power Engineering, Chongqing University. 24 June 2022.
- **AS Nizami**. Zero waste and circular economy. Zero waste lifestyle and circular economy emerging challenges and response action. Mission cleaner Pakistan. 4th February 2022.
- **AS Nizami**. Publishing in High Impact Factor Journals. University of Engineering and Technology (UET) Lahore. 20 August 2022.
- **AS Nizami**. Role of academia in energy transition of Pakistan. Road to COP26. Sustainable Development Policy Institute (SDPI), Islamabad. 26 August 2021.
- **AS Nizami**. Preparedness in Context of Climate Change Adaptation and Disaster Reduction. Master the Disaster – Digital Punjab Hackathon by UNDP. June 27-28, 2020.
- **AS Nizami**. Waste-driven Factories: A Promising Nexus of Energy-Waste-Economy, Research & Development. 2019 Seminar & Training series at Center of Excellence in Environmental Studies (CEES), King Abdulaziz University. Jeddah, Saudi Arabia. 20 February 2019.
- **AS Nizami**. An Integrated Waste Management System in the Kingdom. 12 October 2017. 2017 Seminar & Training Series. Center of Excellence in Environmental Studies (CEES), King Abdulaziz University. Jeddah, Saudi Arabia.

Teaching Experience

- **Government College University, Lahore, Pakistan** 2019 – Present
  - B.Sc. (Hons.), Fundamental Course (ENVSC-7207), Solid Waste Management, 3 Credits Hours.
  - B.Sc. (Hons.), Fundamental Course (ENVSC-2101), Chemistry of the Environment, 3 Credit Hours.
  - B.Sc. (Hons.), Fundamental Course (ENVSC-7108), Climate Change Adaptation and Mitigation, 3 Credit Hours.
  - B.Sc. (Hons.), Fundamental Course (ENVSC-4204), Data Analysis, 3 Credit Hours.
  - B.Sc. (Hons.), Elective Course (ENVSC-3201), History and Philosophy of Environmental Thought, 3 Credit Hours.
  - MS/M.Phil., Course (ENVSC-7107), Research Methods in Environmental Sciences, 3 Credit Hours.
  - Ph.D., Course (ENVSC-8107), Synopsis and Academic Writing, 3 Credit Hours.

- Ph.D., Course (ENVSC-8101), Climate Change and Natural Resource Management, 3 Credit Hours.

- **King Abdulaziz University, Saudi Arabia** 2015 - 2019
  - Postgraduate Research Courses (ENS 799), Center of Excellence in Environmental Studies (CEES).
  - Professional training courses on Solid Waste Management, Energy, Sustainability, and Hazardous Waste Management, Department of Environmental Sciences.
  - Participated in teaching Environmental Sciences preparatory courses in the Department of Environmental Sciences.
  - Supervised 2 Ph.D. and 2 Master's students on Renewable and Sustainable Energy Systems and Resource Recovery.
  - Taught and trained a group of nationwide Saudi talented students (Mawhiba) for 3 weeks for 3 years during summer camp.

- **University of Toronto, Canada** 2012 - 2013
  - Graduate and Postgraduate courses, (1) Environmental Pathways (Specialized, Technical CHE460/JNC2503H), and (2) Chemical Plant Design (Alternative Green Bin Processing), Department of Chemical Engineering & Applied Chemistry.
  - Co-supervised and mentored postgraduate students on the topic of alternative fuels.

Publications

Peer-Reviewed Journal Papers *(Impact Factor: ≥1900, Citations: ≥22,000, H-index: 77, i10-index 194)*

** Sign shows my articles as being the Corresponding Author (Project Leader)*

1. K Sajid, MH Javed, H Ala'a, M Rehan, MI Khan, F Musharavati, MW Anjum, M Naqvi, M Ali, MR Tabassum, **AS Nizami***. 2025. Advancing sustainable bioethanol production from organic waste by integrating life cycle modelling. Energy Nexus, 100563 (IF 9.5)
2. M Saghir, A Ayub, **AS Nizami***, M Baqar, H Kamyab, M Waqas, M Rehan, ZZ Asam. 2026. Sustainable valorization of leachate at Lakhodair landfill, Lahore: An integrated life cycle environmental and economic assessment of biogas production. Biomass and Bioenergy 205, 108540 (IF 5.8)
3. M Naqvi, MAI Malik, **AS Nizami**, AS Qureshi. 2025. Sustainable Hydrogen Production for Ammonia from Black Liquor Gasification Integrated with Modern Pulp Mills for Carbon-Neutral Systems. Process Safety and Environmental Protection, 107257 (IF 7.8)
4. MH Javed, A Ahmad, **AS Nizami***, M Gastaldi, ID'Adamo. 2025. Sustainable Development at the Crossroads: Navigating Eco-Humanism and Eco-Modernism. Current Opinion in Green and Sustainable Chemistry, 101018 (IF 9.4)
5. M Khan, **AS Nizami***, A Yasar, F Musharavati. 2025. Advancing vertical integration and circularity in the textile industry by developing a novel framework of textile sustainability index. Sustainable Futures, 101496 (IF 4.9)
6. M Rehan, K Shahzad, N Ali, AS Nizami, 2025. Municipal solid waste gasification for resilient energy systems: advancing sustainable crisis preparedness in the wake of COVID-19. Frontiers in Bioengineering and Biotechnology, 13 (IF 4.8)
7. I Mazhar, M Afzaal, M Altaf, M Sohail, RS Ashraf, **AS Nizami***. 2025. Structurally engineered monolithic catalyst for enhanced sunlight-driven degradation of ciprofloxacin in contaminated water systems. Discover Sustainability 6 (1), 606 (IF 3)
8. M Naeem, M Abbas, H Ala'a, M Farid, MA Haider, F Musharavati, M Rehan, MI Khan, M Naqvi, **AS Nizami***. 2025. Evaluating heavy metal contamination from leachate percolation for sustainable remediation strategies. Journal of Hazardous Materials Advances, 100582 (IF 7.7)

9. A Iqbal, R Haider, A Yasar, **AS Nizami**. 2025. A governance model for sustainable municipal solid waste management: Aligning the sector with Pakistan's economic goals. Waste Management Bulletin 3 (1), 107-127
10. K Sajid, M Rehan, **AS Nizami***. 2025. Optimizing Bioethanol Production by Comparative Environmental and Economic Assessments of Multiple Agricultural Feedstocks. Processes 13 (4), 1027 (IF 2.8)
11. A Ahmad, MH Javed, F Musharavati, MI Khan, AH Al-Muhtaseb, M Naqvi, R Abu, MW Anjum, M Rehan, ZZ Asam, R Hussain, **AS Nizami**. 2025. Achieving circular economy through sustainable biofertilizer production from mixed municipal waste: a life cycle analysis approach. Biomass Conversion and Biorefinery, 1-19 (IF 4.1)
12. MH Javed, A Ahmad, M Rehan, F Musharavati, **AS Nizami***, MI Khan. 2025. Advancing Sustainable Energy: Environmental and Economic Assessment of Plastic Waste Gasification for Syngas and Electricity Generation Using Life Cycle Modeling. Sustainability 17 (3), 1277 (IF 3.3)
13. C Wang, X Wu, A Xia, **AS Nizami**, Y Huang, X Zhu, X Zhu, Q Liao. 2024. Improving anaerobic digestion of lignocellulosic hydrolysate derived from hydrothermal pretreatment via applied voltages. Energy 312, 133651 (IF 9.4)
14. D Feng, A Xia, C Wang, **AS Nizami**, Y Huang, X Zhu, X Zhu, Q Liao. 2024. External voltage promoting electro-fermentation of propionate wastewater in high concentration. Energy, 134048 (IF 9.4)
15. H Tubussum, M Aslam, HM Hashim, M Marimuthu, KH Mahmoud, AS Alsubaie, AW Bhutto, A A Bazmi, A Bokhari, **AS Nizami**. 2024. Reorientation of energy policy and management: Integrated Energy Planning (IEP) framework implementation for Renewable and Thermal Energy Systems (RTES). Process Safety and Environmental Protection 191, 780-798 (IF 7.8)
16. G Catalano, I D'Adamo, M Gastaldi, **AS Nizami**, M Ribichini. 2024. Incentive policies in biomethane production toward circular economy. Renewable and Sustainable Energy Reviews 202, 114710 (IF 16.3)
17. F Musharavati, A Ahmad, MH Javed, K Sajid, **AS Nizami***. 2024. Advancing biohydrogen production from organic fraction of municipal solid waste through thermal liquefaction. International Journal of Hydrogen Energy (IF 8.1)
18. H Tubussum, M Aslam, HM Hashim, M Marimuthu, KH Mahmoud, AS Alsubaie, AW Bhutto, AA Bazmi, A Bokhari, **AS Nizami**. 2024. Reorientation of energy policy and management: Integrated Energy Planning (IEP) framework implementation for Renewable and Thermal Energy Systems (RTES). Process Safety and Environmental Protection 191, 780-798 (IF 7.8)
19. F Musharavati, A Ahmad, MH Javed, K Sajid, **AS Nizami***. 2024. Advancing biorefinery technologies through transesterification and hydrothermal liquefaction for biodiesel and bioproducts production. Journal of the Taiwan Institute of Chemical Engineers, 105661 (IF 6.3)
20. AA Tunio, M Naqvi, AS Qureshi, I Khushk, AN Jatt, **AS Nizami**, HA Naqvi, TR Charan, MA Bhutto, NA Tunio. Multi enzyme production from mixed untreated agricultural residues applied in enzymatic saccharification of lignocellulosic biomass for biofuel. 2024. Process Safety and Environmental Protection 186:540-551 (IF 7.8)
21. A Iqbal, A Yasar, **AS Nizami**, IA Sultan, R Haider, AB Tabinda, AA Kedwii, MM Chaudhary, MU Ghori. 2024. Modelling the Nexus of municipal solid waste sector for climate resilience and adaptation to nature-based solutions: A case study of Pakistan. Heliyon 10 (11) (IF 3.6)
22. CE Barbara, ID Adamo, M Gastaldi, **AS Nizami**. 2024. Clean energy for a sustainable future: Analysis of a PV system and LED bulbs in a hotel. Energy 299, 131547 (IF 9.4)
23. Q Xu, S Ali, M Afzal, **AS Nizami**, S Han, MA Dar, D Zhu. 2024. Advancements in bacterial chemotaxis: Utilizing the navigational intelligence of bacteria and its practical applications. Science of The Total Environment, 172967 (IF 8.0)
24. CE Barbara, ID Adamo, M Gastaldi, **AS Nizami**. 2024. Clean energy for a sustainable future: Analysis of a PV system and LED bulbs in a hotel. Energy, 131547 (IF 9.4)
25. C Wang, D Feng, A Xia, **AS Nizami**, Y Huang, X Zhu, X Zhu, Q Liao, JD Murphy. 2024. A comparative life cycle assessment of electro-anaerobic digestion to evaluate biomethane generation from organic solid waste. Renewable and Sustainable Energy Reviews 196, 114347 (IF 16.3)

26. MT Munir, M Naqvi, B Li, R Raza, A Khan, SAA Taqvi, **AS Nizami**. 2024. From Waste to Watts: Emerging role of waste lignin-derived materials for energy storage. Journal of Energy Storage 82, 110477 (IF 9.8)
27. I D'Adamo, M Gastaldi, M Giannini, **AS Nizami**. 2024. Environmental implications and levelized cost analysis of E-fuel production under photovoltaic energy, direct air capture, and hydrogen. Environmental Research, 118163 (IF 7.7)
28. N Ahmad, AL Virk, **AS Nizami**, R Lal, SX Chang, MB Hafeez, X Guo, R Wang, X Wang, HMW Iqbal, G Albasher, J Li. 2024. Carbon trade-off and energy budgeting under conventional and conservation tillage in a rice-wheat double cropping system. Journal of Environmental Management 351, 119888 (IF 8.4)
29. A Iqbal, A Yasar, **AS Nizami***, R Haider, IA Sultan, AA Kedwaii, MM Chaudhary, MH Javed, A Ahmad, K Sajid, M Naqvi, MU Ghori. 2024. Empirical analysis of cost-effective and equitable solid waste management systems: Environmental and economic perspectives. Environmental Research, 117858 (IF 7.7)
30. H Shahbeik, HKS Panahi, M Dehhaghi, GJ Guillemin, A Fallahi, HH Bandbafha, H Amiri, M Rehan, D Raikwar, H Latine, B Pandalone, B Khoshnevisan, C Sonne, L Vaccaro, **AS Nizami**, VK Gupta, SS Lam, J Pan, R Luque, B Sels, W Peng, M Tabatabaei, M Aghbashlo. 2024. Biomass to biofuels using hydrothermal liquefaction: A comprehensive review. Renewable and Sustainable Energy Reviews 189, 113976 (IF 16.3)
31. HKS Panahi, HH Bandbafha, M Dehhaghi, Y Orooji, O Mahian, H Shahbeik, M Kiehbadroudinezhad, MA Kalam, HK Maleh, GS Jouzani, C Mei, GG Guillemin, **AS Nizami**, Y Wang, VK Gupta, SS Lam, J Pan, KH Kim, W Peng, M Aghbashlo, M Tabatabaei. 2024. Nanotechnology applications in biodiesel processing and production: A comprehensive review. Renewable and Sustainable Energy Reviews 192, 114219 (IF 16.3)
32. FP Dad, WD Khan, F Sharif, **AS Nizami***. 2024. Adsorption of trace heavy metals through organic compounds enriched biochar using isotherm adsorption and kinetic models. Environmental Research 241, 117702 (IF 7.7)
33. H Yang, M Rehan, M Rehan, **AS Nizami**, M Tabatabaei, M Amjad, et al., 2023. Integrated Waste Biorefineries: Achieving Sustainable Development Goals. Frontiers in Energy Research, 4 (IF 2.4)
34. MT Munir, B Li, M Naqvi, **AS Nizami**. 2023. Green loops and clean skies: Optimizing municipal solid waste management using data science for a circular economy. Environmental Research, 117786 (IF 7.7)
35. F Musharavati, K Sajid, I Anwer, **AS Nizami***, MH Javed, A Ahmad, M Naqvi. 2023. Advancing Biodiesel Production System from Mixed Vegetable Oil Waste: A Life Cycle Assessment of Environmental and Economic Outcomes. Sustainability 15 (24), 16550 (IF 3.3)
36. SD Shelare, PN Belkhode, KC Nikam, LD Jathar, K Shahapurkar, MEM Soudagar, I Veza, TMY Khan, MA Kalam, **AS Nizami**, M Rehan. 2023. Biofuels for a sustainable future: Examining the role of nano-additives, economics, policy, internet of things, artificial intelligence and machine learning technology in biodiesel production. Energy, 128874 (IF 9.4)
37. M Waqas, **AS Nizami**, AS Aburiazaiza, F Jabeen, OA Arikan, A Anees, F Hussain, MH Javed, M Rehan. 2023. Unlocking integrated waste biorefinery approach by predicting calorific value of waste biomass. Environmental Research, 116943 (IF 7.7)
38. M Amir, RG Deshmukh, HM Khalid, Z Said, A Raza, SM Muyeen, **AS Nizami**, RM Elavarasan, R Saidur, K Sopian. 2023. Energy storage technologies: An integrated survey of developments, global economical/environmental effects, optimal scheduling model, and sustainable adaption policies. Journal of Energy Storage 72, 108694 (IF 9.8)
39. A Shafizadeh, H Shahbeik, MH Nadian, VK Gupta, **AS Nizami**, SS Lam. 2023. Turning hazardous volatile matter compounds into fuel by catalytic steam reforming: An evolutionary machine learning approach. Journal of Cleaner Production 413, 137329 (IF 10.0)
40. H Hosseinzadeh-Bandbafha, HKS Panahi, M Dehhaghi, Y Orooji, **AS Nizami**, GG Guillemin, VK Gupta, Su Shiung Lam, Yadong Yang, Wanxi Peng, Junting Pan, Ki-Hyun Kim, Mortaza Aghbashlo, Meisam Tabatabaei 2023. Applications of nanotechnology in biodiesel combustion and post-combustion stages. Renewable and Sustainable Energy Reviews 182, 113414 (IF 16.3)
41. HM Zabed, J Islam, FI Chowdhury, M Zhao, MK Awasthi, **AS Nizami**, J Uddin, S Thomas, X Qi. 2022. Recent insights into heterometal-doped copper oxide nanostructure-based catalysts for

renewable energy conversion and generation. Renewable and Sustainable Energy Reviews 168, 112887 (IF 16.3)

42. SM Ali, A Appolloni, F Cavallaro, I D'Adamo, A Di Vaio, F Ferella, **AS Nizami**. 2023. Editorial: Development Goals towards Sustainability. Sustainability 15 (12), 9443 (IF 3.3)
43. M Rehan, MA Raza, AG Abro, MM Aman, IMI Ismail, **AS Nizami**, MI Rashid. 2023. A sustainable use of biomass for electrical energy harvesting using distributed generation systems. Energy, 128036 (IF 9.0)
44. A Iqbal, A Yasar, **AS Nizami**, F Sharif, AB Tabinda, IA Sultan, SA Batool, R Haider, A Shahid, MM Chaudhary, M Ahmad. 2023. Evolution of Solid Waste Management System in Lahore: A Step towards Sustainability of the Sector in Pakistan. Applied Sciences 13 (2), 983 (IF 2.7)
45. A Yasar, S Basit, AB Tabinda, A Ali, SUK Naqvi, **AS Nizami**, SLH Naqvi, S Mahmood, R Tanveer. 2023. Evaluation of operational and financial viability models of combined landfill site for intermediate cities in Pakistan. Environmental Science and Pollution Research 30 (1), 1825-1840 (IF 5.8)
46. LD Jathar, S Ganesan, U Awasarmol, K Nikam, K Shahapurkar, V Tirth, **AS Nizami**, SS Lam, M Rehan. 2023. Comprehensive review of environmental factors influencing the performance of photovoltaic panels: Concern over emissions at various phases throughout the lifecycle. Environmental Pollution, 121474 (IF 7.3)
47. Z Usmani, M Sharma, M Tripathi, **AS Nizami**, L Gong, QD Nguyen, MS Reddy, VK Thakur, VK Gupta. 2023. Converting biowaste streams into energy–leveraging microwave assisted valorization technologies for enhanced conversion. Journal of the Energy Institute, 101161 (IF 6.2)
48. A Iqbal, A Yasar, AB Tabinda, R Haider, IA Sultan, AA Kedwii, **AS Nizami**. 2023. Waste as Resource for Pakistan: An Innovative Business Model of Regenerative Circular Economy to Integrate Municipal Solid Waste Management Sector. Sustainability 15 (7), 6281 (IF 3.3)
49. A Ayub, SF Ali Shah, MA Qyyum, DY Habib, MA Murtaza, M Rehan, **AS Nizami**. 2023. Sustainable economic growth potential of biomass-enriched countries through bioenergy production: State-of-the-art assessment using product space model. Frontiers in Energy Research 11, 1123262 (IF 2.4)
50. MA Qyyum, SFA Shah, K Qadeer, A Naquash, M Yasin, M Rehan, M Tabatabaei, M Aghbashlo, M Lee, **AS Nizami**. 2022. Biowaste to bioenergy options for sustainable economic growth opportunities in developing countries: Product space model analysis and policy map development. Renewable and Sustainable Energy Reviews 169, 112832 (IF 16.3)
51. R Sedghi, H Shahbeik, H Rastegari, S Rafiee, W Peng, **AS Nizami**, M Aghbashlo. 2022. Turning biodiesel glycerol into oxygenated fuel additives and their effects on the behavior of internal combustion engines: A comprehensive systematic review. Renewable and Sustainable Energy Reviews, 167, 112805 (IF 16.3)
52. H Shahbeik, W Peng, HKS Panahi, M Dehhaghi, GJ Guillemin, A Fallahi, **AS Nizami**, M Aghbashlo. 2022. Synthesis of liquid biofuels from biomass by hydrothermal gasification: A critical review. Renewable and Sustainable Energy Reviews, 167, 112833 (IF 16.3)
53. M Shabir, M Yasin, M Hussain, I Shafiq, P Akhter, **AS Nizami**, YK Park. 2022. A review on recent advances in the treatment of dye-polluted wastewater. Journal of Industrial and Engineering Chemistry, 112:1-19 (IF 6.0)
54. M Ameen, M Zafar, **AS Nizami**, M Ahmad, M Munir, S Sultana, A Usma, M Rehan. Biodiesel Synthesis from Cucumis melo var. agrestis Seed Oil: Towards Non-Food Biomass Biorefineries. Frontiers in Energy Research. 2022 Jul 22:943 (IF 2.4)
55. A Iqbal, Y Abdullah, **AS Nizami**, IA Sultan, F Sharif. 2022. Assessment of Solid Waste Management System in Pakistan and Sustainable Model from Environmental and Economic Perspective. Sustainability 14 (19), 12680 (IF 3.3)
56. MA Qyyum, I Ihsanullah, R Ahmad, S Ismail, A Khan, **AS Nizami**, A Tawfik. 2022. Biohydrogen production from real industrial wastewater: Potential bioreactors, challenges in commercialization and future directions. International Journal of Hydrogen Energy (IF 8.1)
57. HM Zabed, SB Bankar, M Rehan, **AS Nizami**, M Alam, D Rahman, Md Mofijur. 2022. Design and Application of Biocatalysts for Biofuel and Biobased Material Production. Frontiers in Energy Research, 1541 (IF 2.4)

58. R Tanveer, A Yasar, **AS Nizami**, AB Tabinda. 2022. Integration of physical and advanced oxidation processes for treatment and reuse of textile dye-bath effluents with minimum area footprint. Journal of Cleaner Production, 135366 (IF 11.1)
59. R Aslam, F Sharif, M Baqar, **AS Nizami**, U Ashraf. 2022. Role of ambient air pollution in asthma spread among various population groups of Lahore City: a case study. Environmental Science and Pollution Research, 1-16 (IF 5.8)
60. W Xing, J Hao, W Ma, G Gong, **AS Nizami**, Y Song. 2022. Energy Performance of Buildings Using Electrochromic Smart Windows with Different Window-Wall Ratios. Journal of Green Building, 17(1), 3-20 (IF 0.9)
61. J Zhang, A Xia, H Chen, **AS Nizami**, Y Huang, X Zhu, X Zhu, Q Liao. 2022. Biobased carbon dots production via hydrothermal conversion of microalgae Chlorella pyrenoidosa. Science of the Total Environment 156144 (IF 8.0)
62. H Hosseinzadeh-Bandbafha, **AS Nizami**, SA Kalogirou, VK Gupta, YK Park, A Fallahi, A Sulaiman, M Ranjbari, H Rahnama, M Aghbashlo, W Peng, M Tabatabaei. 2022. Environmental life cycle assessment of biodiesel production from waste cooking oil: A systematic review. Renewable and Sustainable Energy Reviews 161, 112411 (IF 16.3)
63. S Soltanian, SA Kalogirou, M Ranjbari, H Amiri, O Mahian. **AS Nizami**, VK Gupta, S Aghaei, W Peng, M Tabatabaei, M Aghbashlo. 2022. Exergetic sustainability analysis of municipal solid waste treatment systems: A systematic critical review. Renewable and Sustainable Energy Reviews 156, 111975 (IF 16.3)
64. JA Tuly, HM Zabed, **AS Nizami**, MM Hassan, SMR Azam, MK Awasthi. 2022. Bioconversion of agro-food industrial wastes into value-added peptides by a Bacillus sp. mutant through solid-state fermentation. Bioresource Technology, 126513 (IF 9.0)
65. M Ranjbari, ZS Esfandabadi, A Ferraris, F Quatraro, M Rehan, **AS Nizami**, VK Gupta, SS Lam, M Aghbashlo, M Tabatabaei 2022. Biofuel supply chain management in the circular economy transition: An inclusive knowledge map of the field. Chemosphere 296, 133968 (IF 8.1)
66. A Tawfik, K Hasanan, M Abdullah, OA Badr, HM Awad, M Elsamadony, AE Dissouky, M A Qyyum, **AS Nizami**. 2022. Graphene enhanced detoxification of wastewater rich 4-nitrophenol in multistage anaerobic reactor followed by baffled high-rate algal pond. Journal of Hazardous Materials, 127395 (IF 11.3)
67. J Haider, MA Qyyum, A Riaz, A Naquash, B Kazmi, M Yasin, **AS Nizami**, M Byun, M Lee, H Lim. 2022. State-of-the-art process simulations and techno-economic assessments of ionic liquid-based biogas upgrading techniques: Challenges and prospects. Fuel 314, 123064 (IF 7.5)
68. FA El-Malek, M Rofeal, HM Zabed, **AS Nizami**, M Rehan, X Qia. 2022. Microorganism-mediated algal biomass processing for clean products manufacturing: Current status, challenges and future outlook. Fuel, 311, 122612 (IF 8.035)
69. MA Qyyum, S Ismail, SQ Ni, I Ihsanullah, R Ahmad, A Khan, A Tawfik, **AS Nizami**, M Lee. 2022. Harvesting biohydrogen from industrial wastewater: Production potential, pilot-scale bioreactors, commercialization status, techno-economics, and policy analysis. Journal of Cleaner Production, 130809 (IF 11.1)
70. K Qadeer, A Ahmad, A Naquash, MA Qyyum, K Majeed, Z Zhou, T He, **AS Nizami**, M Lee. 2022. Neural network-inspired performance enhancement of synthetic natural gas liquefaction plant with different minimum approach temperatures. Fuel 308, 121858 (IF 7.5)
71. M Danish, KB Ansari, M Danish, NA Khan, RA Aftab, S Zaidi, MS Khan, MKA Mesfer, MA Qyyum, **AS Nizami**. 2022. Developing convective–dispersive transport model to characterize fixed-bed adsorption of lead (II) over activated tea waste biosorbent. Biomass Conversion and Biorefinery, 1-15 (IF 4.1)
72. R Tanveer, A Yasar, A Ikhlaq, H Nissar, **AS Nizami**. 2022. Comparison of ozonation, Fenton, and photo-Fenton processes for the treatment of textile dye-bath effluents integrated with electrocoagulation. Journal of Water Process Engineering 46, 102547 (IF 7.0)
73. M Loizidou. K Moustakas. M Rehan. **AS Nizami**. M Tabatabaei. 2021. New developments in sustainable waste-to-energy systems, Editorial. Renewable & Sustainable Energy Reviews 111581 (IF 16.3)

74. M Nasr, A Tawfik, HM Awad, A Galal, M El-Qelish, MA Qyyum, MMA Khan, M Rehan, **AS Nizami**, M Lee. 2021. Dual production of hydrogen and biochar from industrial effluent containing phenolic compounds. Fuel 301, 121087 (IF 7.5)
75. K Qadeer, A Ahmad, MA Qyyum, **AS Nizami**, M Lee. 2021. Developing machine learning models for relative humidity prediction in air-based energy systems and environmental management applications. Journal of Environmental Management 292, 112736 (IF 8.4)
76. TG Ambaye, ER Rene, **AS Nizami**, C Dupont, M Vaccari, ED Hullebusch 2021. Beneficial role of biochar addition on the anaerobic digestion of food waste: A systematic and critical review of the operational parameters and mechanisms. Journal of Environmental Management 290, 112537 (IF 8.4)
77. A Iqbal, MA Qyyum, **AS Nizami**, SA Ahmad, M Lee. 2021. Energy-efficient and cost-effective alternative separation techniques for 2-methoxyethanol–toluene azeotropic mixture: Design and control studies. Chemical Engineering and Processing-Process Intensification, 163, 108376 (3.9)
78. MN Anwar, M Shabbir, E Tahir, M Iftikhar, H Saif, A Tahir, MA Murtaza, MF Khokhar, M Rehan, M Aghbashlo, M Tabatabaei, **AS Nizami**. 2021. Emerging Challenges of Air Pollution and Particulate Matter in China, India, and Pakistan and Mitigating Solutions. Journal of Hazardous Materials, 125851 (IF 11.3)
79. F Battista, K Moustakas, **AS Nizami**. 2021. Integrated biorefinery for the PLANET'S Future. Renewable Energy 1-4, DOI: 10.1016/j.renene.2021.02.036 (IF 8.4)
80. Z Hameed, M Aslam, Z Khan, K Maqsood, AE Atabani, M Ghauri, MS Khurram, M Rehan, **AS Nizami***. 2021. Gasification of municipal solid waste blends with biomass for energy production and resources recovery: Current status, hybrid technologies and innovative prospects. Renewable & Sustainable Energy Reviews 136: 110375 (IF 16.3)
81. Amid S, Aghbashlo M, Tabatabaei M, Karimi K, **Nizami AS**, Rehan M, Hosseinzadeh-Bandbafha, H, Soufiyan MM, Peng W, Lam SS. 2021. Exergetic, exergoeconomic, and exergoenvironmental aspects of an industrial-scale molasses-based ethanol production plant. Energy Conversion and Management 227, 113637 (IF 10.9)
82. Kumara BR, Mathimani T, Sudhakar MP, Rajendran K, **Nizami AS**, Brindhadevi K, Pugazhendhi A. 2021. A state of the art review on the cultivation of algae for energy and other valuable products: Application, challenges, and opportunities. Renewable & Sustainable Energy Reviews, 138:110649 (IF 16.3)
83. Mirmohamadsadeghi S, Karimi K, Azarbaijani R, Yeganeh LP, Angelidaki I, **Nizami AS**, Bhat R, Dashora K, Vijay VK, Aghbashlo M, Gupta VK, Tabatabaei M. 2021. Pretreatment of lignocelluloses for enhanced biogas production: A review on influencing mechanisms and the importance of microbial diversity. Renewable & Sustainable Energy Reviews. 135:110173 (IF 16.3)
84. Feng D, Xia A, Liao Q, **Nizami AS**, Sun C, Huang Y, Zhu X, Zhu X. 2021. Carbon cloth facilitates semi-continuous anaerobic digestion of organic wastewater rich in volatile fatty acids from dark fermentation. Environmental Pollution, 272: 116030 (IF 7.3)
85. Ali SM, Malik F, Anjum MS, Siddiqui GF, Anwar MN, Lam SS, **Nizami AS**, Khokhar MF. 2021. Exploring the linkage between PM2. 5 levels and COVID-19 Spread and its implications for socio-economic circles. Environmental Research. 193:110421 (IF 7.7)
86. Munir M, Ahmad M, Rehan M, Saeed M, Lam SS, **Nizami AS**, Waseem A, Sultana S, Zafar M. 2021. Production of high quality biodiesel from novel non-edible Raphnus raphanistrum L. seed oil using copper modified montmorillonite clay catalyst. Environmental Research. 27:110398 (IF 7.7)
87. MA Qyyum, A Naquash, W Ali, J Haider, AA Noon, M Rehan, **AS Nizami**, M Yasin, M Lee. 2021. Process Systems Engineering Evaluation of Prospective Working Fluids for Organic Rankine Cycles Facilitated by Biogas Combustion Flue Gases. Frontiers in Energy Research 9, 135 (IF 2.4)
88. MS Anjum, SM Ali, E Din, MA Subhani, MN Anwar, **AS Nizami**, U Ashraf, MF Khokhar. 2021. An Emerged Challenge of Air Pollution and Ever-Increasing Particulate Matter in Pakistan; A Critical Review. Journal of Hazardous Materials. S0304-3894(20)31933-6 (IF 11.3)
89. T He, MA Qyyum, Z Zhou, A Ahmad, M Rehan, **AS Nizami**, M Lee. 2021. Black hole-inspired optimal design of biomethane liquefaction process for small-scale applications. Frontiers in Energy Research 9, 100 (IF 2.4)

90. S Saeed, M Saleem, A Durrani, J Haider, M Riaz, S Saeed, MA Qyyum, **AS Nizami**, M Rehan, M Lee. 2021. Determination of Kinetic and Thermodynamic Parameters of Pyrolysis of Coal and Sugarcane Bagasse Blends Pretreated by Ionic Liquid: A Step towards Optimization of Energy Systems. Energies 14 (9), 2544 (IF 3.252)
91. A Yasar, M Shoukat, N Anwar, AB Tabinda, MN Anwar, **AS Nizami**. 2021. A comparison of waste recycling facilities for their contribution of heavy metals and trace elements in ambient air. Environmental Science and Pollution Research, 24807 – 24815 (IF 5.8)
92. MA Saeed, M Farooq, A Anwar, MM Abbas, MEM Soudagar, FA Siddiqui, MA Shakir, **AS Nizami**. 2021. Flame propagation and burning characteristics of pulverized biomass for sustainable biofuel. Biomass Conversion and Biorefinery. 11 (2), 409-417 (IF 4.1)
93. Munir M, Ahmad M, Saeed M, Waseem A, **Nizami AS***, Sultana S, Zafar M, Rehan M, Srinivasan GR, Ali AM. 2020. Biodiesel production from novel non-edible caper (Capparis spinosa L.) seeds oil employing Cu–Ni doped ZrO_2 catalyst. Renewable & Sustainable Energy Reviews, 110558 (IF 16.3)
94. Asam Z, O'Driscoll C, Abbas M, O'Connor M, Waqas M, Rehan M, **Nizami AS**, Xiao L. 2020. Mechanism and role of seeded native grasses to immobilize nitrogen on harvested blanket peat forests for protection of water courses. Environmental Science and Pollution Research. 6:1-5 (IF 5.8)
95. Ishaq M, Gilani MA, Afzal ZM, Bilad MR, **Nizami AS**, Rehan M, Tahir E and Khan AL. 2020. Novel Poly Deep Eutectic Solvents Based Supported Liquid Membranes for CO_2 Capture. Frontiers in Energy Research. 8:595041 (IF 2.4)
96. Haider J, Qyyum MA, Kazmi B, Ali I, **Nizami AS**, Lee M. 2020. Simulation study of deep eutectic solvent-based biogas upgrading process integrated with single mixed refrigerant biomethane liquefaction. Biofuel Research Journal 7 (4), 1245 (IF 2.0)
97. M Tabatabaei, HH Bandbafha, M Aghbashlo, **AS Nizami***. 2020. Integrated sustainability analysis of combustion engines (ISACE) as an alternative to classical combustion analysis. Renewable & Sustainable Energy Reviews. 131:109981 (IF 16.3)
98. HKS Panahi, M Dehhaghi, YS Ok, **AS Nizami**, B Khoshnevisan, SI Mussatto, M Aghbashlo, M Tabatabaei, SS Lam. 2020. A comprehensive review of engineered biochar: production, characteristics, and environmental applications. Journal of Cleaner Production 270: 122462 (IF 10.0)
99. M Waqas, Z Asam, M Rehan, MN Anwar, RA Khattak, IMI Ismail, M Tabatabaei, **AS Nizami***. 2020. Development of biomass-derived biochar for agronomic and environmental remediation applications. Biomass Conversion and Biorefinery, 1-23 (IF 4.1)
100. S Soltaniana, M Aghbashlo, F Almasi, H Hosseinzadeh-Bandbafha, **AS Nizami**, YS Ok, SS Lam, M Tabatabaei, 2020. A critical review of the effects of pretreatment methods on the exergetic aspects of lignocellulosic biofuels. Energy Conversion and Management 212: 112792 (IF 10.9)
101. MA Qyyum, M Yasin, A Nawaz, T He, W Ali, J Haider, K Qadeer, **AS Nizami**, K Moustakas, M Lee. 2020. Single-Solution-Based Vortex Search Strategy for Optimal Design of Offshore and Onshore Natural Gas Liquefaction Processes. Energies, 13(7):1732 (IF 3.252)
102. K Moustakas, M Rehan, M Loizidou, **AS Nizami**, M. Naqvi. 2020. Energy and resource recovery through integrated sustainable waste management. Applied Energy. 261: 114372 (IF 11.0)
103. G Ferrari, A Pezzuolo, **AS Nizami**, F Marinello. 2020. Bibliometric analysis of trends in biomass for bioenergy research. Energies 13 (14), 3714 (IF 3.252)
104. M Tabatabaei, M Aghbashlo, E Valijanian, HKS Panahi, **AS Nizami**, H Ghanavati, A Sulaiman, S Mirmohamadsadeghi, K Karimi. 2020. A comprehensive review on recent biological innovations to improve biogas production, Part 1: Upstream strategies. Renewable Energy, 146: 1204-1220 (IF 9.1)
105. A Shakoor, AL Khan, P Akhter, M Aslam, MR Bilad, IM Maafa, K Moustakas, **AS Nizami**, M Hussain. 2020. CO_2 from waste to resource by developing novel mixed matrix membranes. Environmental Science and Pollution Research, DOI: 10.1007/s11356-020-10044-3 (IF 5.8)
106. M Tabatabaei, M Aghbashlo, E Valijanian, HKS Panahie, **AS Nizami**, H Ghanavati, A Sulaiman, S Mirmohamadsadeghi, K Karimi, 2020. A comprehensive review on recent biological innovations to improve biogas production, Part 2: Mainstream and downstream strategies. Renewable Energy. 146: 1392-1407 (IF 9.1)

107. N Habib, Z Shamair, N Tara, **AS Nizami**, FH Akhtar, NM Ahmad, MA Gilani, MR Bilad, AL Khan. 2020. Development of highly permeable and selective mixed matrix membranes based on Pebax® 1657 and NOTT-300 for CO_2 capture. Separation and Purification Technology, 234, 116101 (IF 8.6)
108. M Kashif, MB Awan, S Nawaz, M Amjad, B Talib, M Farooq, **AS Nizami**, M Rehan. 2020. Untapped renewable energy potential of crop residues in Pakistan: Challenges and future directions. Journal of Environmental Management 256, 109924 (IF 8.4)
109. MN Anwar, A Fayyaz, NF Sohail, MF Khokhar, M Baqar, MUF Raja, M Rehan, M Aghbashlo, M Tabatabaei, **AS Nizami**. 2020. CO_2 utilization: turning greenhouse gas into fuels and valuable products. Journal of Environmental Management, 260, 110059 (IF 8.4)
110. N Khan, MD Khan, S Sabir, **AS Nizami**, AH Anwer, M Rehan, MZ Khan. 2020. Deciphering the effects of temperature on bio-methane generation through anaerobic digestion. Environmental Science and Pollution Research. DOI: 10.1007/s11356-019-07245-w (IF 5.8)
111. SN Ali, M Baqar, M Mumtaz, U Ashraf, MN Anwar, A Mahmood, A Qadir, SR Ahmad, **AS Nizami**, H Jun. 2020. Organochlorine pesticides in the surrounding soils of POPs destruction facility: source fingerprinting, human health, and ecological risks assessment. Environmental Science and Pollution Research. DOI:10.1007/s11356-019-07183-7 (IF 5.8)
112. Z Khounani, H Hosseinzadeh-Bandbafha, **AS Nizami**, A Sulaiman, M Tabatabaei, et al. 2020. Data on environmental analysis of natural antioxidant production from walnut husk by a solar photovoltaic-driven system as a replacement for potentially carcinogenic synthetic. Data in Brief, 28: 104933 (IF 1.4)
113. M Dehhaghi, M Tabatabaei, M Aghbashlo, HKS Panahi, **AS Nizami**. 2019. A state-of-the-art review on the application of nanomaterials for enhancing biogas production. Journal of Environmental Management 251, 109597 (IF 8.4)
114. K Moustakas, M Loizidou, M Rehan, **AS Nizami**. 2019. A review of recent developments in renewable & sustainable energy systems: Key challenges and future perspective. Renewable & Sustainable Energy Reviews, 109418 (IF 16.3)
115. AH Anwer, MD Khan, N Khan, **AS Nizami***, M Rehan, MZ Khan. 2019. Environmental development of novel MnO_2 coated carbon felt cathode for microbial electroreduction of CO_2 to biofuels. Journal of Environmental Management 249:109376 (IF 8.4)
116. MA Rajaeifar, M Tabatabaei, M Aghbashlo, **AS Nizami**, O Heidrich. 2019. Emissions from urban bus fleets running on biodiesel blends under real-world operating conditions: implications for designing future case studies. Renewable & Sustainable Energy Reviews. 111: 276-292 (IF 16.3)
117. Z Sajjad, MA Gilani, **AS Nizami**, MR Bilad, AL Khan. 2019. Development of novel hydrophilic ionic liquid membranes for the recovery of biobutanol through pervaporation. Journal of Environmental Management 251, 109618 (IF 8.4)
118. M Munir, M Saeed, M Ahmad, A Waseem, M Rehan, **AS Nizami**, M Arshad, S Sultana. 2019. Sustainable production of biodiesel from novel non-edible seed oil using bimetallic impregnated montmorillonite clay catalyst. Renewable & Sustainable Energy Reviews. 109: 321-332 (IF 16.3)
119. Z Khounani, H Hosseinzadeh-Bandbafha, **AS Nizami**, A Sulaiman, SAH Goli, E Tavassoli-Kafrani, A Ghaffari, MA Rajaeifar, KH Kim, AF Talebi, M Aghbashlo, M Tabatabaei. 2019. Unlocking the potential of walnut husk extract in the production of waste cooking oil-based biodiesel. Renewable & Sustainable Energy Reviews, 109588 (IF 16.3)
120. M Rehan, **AS Nizami**, U Rashid, MR Naqvi. 2019. Waste biorefineries: future energy, green products and waste treatment, Editorial. Frontiers in Energy Research. 7:55 (IF 2.4)
121. M Waqas, **AS Nizami***, AS Aburiazaiza, MA Barakat, ZZ Asam, B Khattak, MI Rashid. 2019. Untapped potential of zeolites in optimization of food waste composting. Journal of Environmental Management 241: 99-112 (IF 8.4)
122. J Gardy, M Rehan, A Hassanpour, X Lai, **AS Nizami**. 2019. Advances in nano-catalysts based biodiesel production from non-food feedstocks. Journal of Environmental Management 249, 109316 (IF 8.4)
123. J Alghazo, O Ouda, F Alanezi, ZZ Asam, M Rehan, MH Salameh. **AS Nizami***. 2019. Potential of electronic waste recycling in Gulf Cooperation Council states: an environmental and economic analysis. Environmental Science and Pollution Research. 26(35), 35610-35619 (IF 5.8)

124. HA Smail, M Rehan, KM Shareef, Z Ramli, **AS Nizami**, J Gardy. 2019. Synthesis of uniform mesoporous zeolite ZSM-5 catalyst for friedel-crafts acylation. ChemEngineering. 3 (35): 1-11 (IF 3.4)
125. M Tabatabaei, S Soltanian, M Aghbashlo, **AS Nizami**. 2019. Fast pyrolysis of biomass: advances in science and technology: a book review. Journal of Cleaner Production, 213: 1411-1413 (IF 11.1)
126. S Bano, SR Tariq, A Ilyas, M Aslam, MR Bilad, **AS Nizami**, AL Khan. 2019. Synergistic solution of CO_2 capture by novel lanthanide-based MOF-76 yttrium nanocrystals in mixed-matrix membranes. Energy & Environment, DOI: 10.1177/0958305X19882413 (IF 4.8)
127. HKS Panahi, M Tabatabaei, M Aghbashlo, M Dehhaghi, M Rehan, **AS Nizami**. 2019. Recent updates on the production and upgrading of bio-crude oil from microalgae. Bioresource Technology Reports. 7: 100216 (CiteScore 7.8)
128. D Pant, S Mishra, **AS Nizami**, M Rehan, RV Leeuwen, S Tabacchioni, R Goel, P Sarma, R Bakker, N Sharma, K Kwant, L Diels, K Elst. 2019. Towards the development of a biobased economy in Europe and India. Critical Reviews in Biotechnology. DOI: 10.1080/07388551.2019.1618787 (IF 7.7)
129. U Rashid, **AS Nizami**, M Rehan. 2019. Waste biomass utilization for value-added green products. Current Organic Chemistry 23 (14), 1497-1498 (IF 2.1)
130. R Miandad, M Rehan, MA Barakat, AS Aburiazaiza, H Khan, IMI Ismail, J Dhavamani, J Gardy, A. Hassanpour. **AS Nizami**. 2019. Catalytic pyrolysis of plastic waste: moving toward pyrolysis based biorefineries. Frontiers in Energy Research. 7:27 (IF 2.4)
131. MI Khan, MK Almesfer, M Danish, IH Ali, H Shoukry, R Patel, J Gardy, **AS Nizami**, M. Rehan. 2019. Potential of Saudi natural clay as an effective adsorbent in heavy metals removal from wastewater. Desalination and Water Treatment. DOI: 10.5004/dwt.2019.24270 (IF 1.0)
132. MN Anwar, A Fayyaz, NF Sohail, MF Khokhar, M Baqar, WD Khan, K Rasool, M Rehan, **AS Nizami**. 2018. CO_2 capture and storage: A way forward for sustainable environment. Journal of Environmental Management. 15 (226): 131-144 (IF 8.4)
133. H Rahimzadeh, M Tabatabaei, M Aghbashlo, HKS Panahi, A Rashidi, SAH Goli, M Mostafaei, M Ardjmand, **AS Nizami**. 2018. Potential of acid-activated bentonite and SO_3H-functionalized MWCNTs for biodiesel production from residual olive oil under biorefinery scheme. Frontiers in Energy Research. 6:137 (IF 2.4).
134. N Khan, MD Khan, **AS Nizami***, M Rehan, A Shaida, A Ahmad, MZ Khan. 2018. Energy generation through bioelectrochemical degradation of pentachlorophenol in microbial fuel cell. RSC Advances 8 (37), 20726-20736 (IF 4.6)
135. M Waqas, AS Aburiazaiza, R Minadad, M Rehan, M.A Barakat, **AS Nizami***. 2018. Development of biochar as fuel and catalyst in energy recovery technologies. Journal of Cleaner Production. 188: 477-488 (IF 11.1)
136. M Rehan, J Gardy, A Demirbas, U Rashid, WM Budzianowski, D Pant, **AS Nizami***. 2018. Waste to biodiesel: a preliminary assessment for Saudi Arabia. Bioresource Technology. 250: 17-25 (IF 9.0)
137. M Waqas, **AS Nizami***, AS Aburiazaiza, MA Barakat, IM Rashid, IMI Ismail. 2018. Optimizing the process of food waste compost and valorizing its applications: A case study of Saudi Arabia. Journal of Cleaner Production. 176: 426-438 (IF 11.1)
138. M Naqvi, E Dahlquist, J Yan, SR Naqvi, **AS Nizami**, CA Salman, M Danish, U Farooq, M Rehan, Z Khan, AS Qureshi. 2018. Polygeneration system integrated with small non-wood pulp mills for substitute natural gas production. Applied Energy 224: 636–646 (IF 11.0)
139. M Waqas, **AS Nizami***, AS Aburiazaiza, MA Barakat, IMI Ismail, MI Rashid. 2018. Optimization of food waste compost with the use of biochar. Journal of Environmental Management. 216: 70-81 (IF 8.4)
140. K Shahzad, L Cucek, M Sagir, N Ali, MI Rashid, R Nazir, **AS Nizami**, HA Al-Turaif, IMI Ismail. 2018. An ecological feasibility study for developing sustainable street lighting system. Journal of Cleaner Production. 175: 683-695 (IF 11.1)
141. R Miandad, R Kumar, C Basheer, A Aburiazaiza, **AS Nizami**, M Rehan. 2018. Untapped conversion of plastic waste char into carbon-metal double layered oxides for adsorption of Congo red. Journal of Colloid and Interface Science. 511: 402-410 (IF 9.7)

142. **AS Nizami***, M Rehan. 2018. Towards nanotechnology-based biofuel industry, Editorial. Biofuel Research Journal 18 (2018) 798-799. DOI: 10.18331/BRJ2018.5.2.2 (IF 2.0)
143. OKM Ouda, HP Peterson, M Rehan, Y Sadef, JM Alghazo, **AS Nizami***. 2018. A case study of sustainable construction waste management in Saudi Arabia. Waste and Biomass Valorization. DOI:10.1007/s12649-017-0174-9 (IF 2.8)
144. M Waqas, T Almeelbi, **AS Nizami***. 2018. Resource recovery of food waste through continuous thermophilic in-vessel composting. Environmental Science and Pollution Research. 25(6): 5212-5222 (IF 5.8)
145. SR Naqvi, A Bibi, M Naqvi, T Noor, **AS Nizami**, M Rehan, M Ayoub. 2018. New trends in improving gasoline quality and octane through naphtha isomerization: a short review. Applied Petrochemical Research, 8 (3): 131–139.
146. R Miandad, MA Barakat, M Rehan, AS Aburiazaiza, J Gardy, **AS Nizami***. 2018. Effect of advanced catalysts on tire waste pyrolysis oil. Process Safety and Environmental Protection. 116: 542–552 (IF 7.8)
147. N Rahmanian, M Rehan, A Sumani, **AS Nizami**. 2018. Effect of packing structure on CO_2 capturing process. Chemical Engineering Transactions, 70: 1891-1896.
148. M Syamsiro, DY Mathias, H Saptoadi, DR Sawitri, **AS Nizami**, M Rehan. 2018. Pyrolysis of compact disc (CD) case wastes to produce liquid fuel as a renewable source of electricity generation. Energy Procedia 145, 484-489.
149. R Miandad, MA Barakat, M Rehan, AS Aburiazaiza, IMI Ismail, **AS Nizami***. 2017. Plastic waste to liquid oil through catalytic pyrolysis using natural and synthetic zeolite catalysts. Waste Management. 69: 66-78 (IF 7.1)
150. **AS Nizami***, M Rehan, M Waqas, M Naqvi, OKM Ouda, K Shahzad, R Miandad, MZ Khan, M Syamsiro, IMI Ismail, D Pant. 2017. Waste Biorefineries: Enabling Circular Economies in Developing Countries. Bioresource Technology 241: 1101-1117 (IF 9.0)
151. MD Khan, N Khan, **AS Nizami**, M Rehan, S Sabir, MZ Khan. 2017. Effect of co-substrates on biogas production and anaerobic decomposition of pentachlorophenol. Bioresource technology 238: 492-501 (IF 9.0)
152. MZ Khan, **AS Nizami***, M Rehan, OKM Ouda, S Sultana, IMI Ismail, K Shahzad. 2017. Microbial electrolysis cells for hydrogen production and wastewater treatment: a case study of Saudi Arabia. Applied Energy 185 (1): 410–420 (IF 11.0)
153. **AS Nizami***, K Shahzad, M Rehan, OKM Ouda, MZ Khan, IMI Ismail, T Almeelbi, JM Basahi, A Demirbas. 2017. Developing waste biorefinery in Makkah: a way forward to convert urban waste into renewable energy. Applied Energy. 186 (2): 189–196 (IF 11.0)
154. K Shahzad, **A.S Nizami**, A.O BaFail, M Sagir, M Rehan, S Maier, M.Z Khan, OKM Ouda, IMI Ismail, JM Basahi. 2017. Biodiesel production potential from fat fraction of municipal waste in Makkah. PLoS ONE 12(2): e0171297 (IF 3.7)
155. R Miandad, MA Barakat, AS Aburiazaiza, M Rehan, IMI Ismail, **AS Nizami***. 2017. Effect of plastic waste types on pyrolysis liquid oil. International Biodeterioration & Biodegradation, 119: 239–252 (IF 4.1)
156. OKM Ouda, M Rehan, N Nader, **AS Nizami***. 2017. Environmental and economic benefits of recovered paper: a case study of Saudi Arabia. Energy Procedia. 142: 2424-2429.
157. M Rehan, R Miandad, IMI Ismail, A Demirbas, **AS Nizami**. 2017. Effect of zeolite catalysts on pyrolysis liquid oil. International Biodeterioration & Biodegradation. 119: 162-175 (IF 4.1)
158. OKM Ouda, Y Khalid, AH Ajbar, M Rehan, K Shahzad, I Wazeer, **AS Nizami***. 2018. Long-term desalinated water demand and investment requirements: a case study of Riyadh. Journal of Water Reuse and Desalination. 8 (3) 432-446 (IF 4.5)
159. M Rehan, N Rahmaniana, X Hyatta, **AS Nizami**. 2017. Energy savings in CO_2 capture system through intercooling mechanism. Energy Procedia. 142: 3683-3688.
160. **AS Nizami***, M Rehan, M Naqvi, O Ouda, M Syamsiro, M Waqas, R Miandad, ZZ Asam, IMI Ismail. 2017. Energy, economic and environmental savings by waste recycling: a case study of Madinah city. Energy Procedia. 142: 910-915.
161. A Demirbas, BO Al-Sasi, **AS Nizami**. 2017. Recent volatility in the price of crude oil. Energy Sources, Part B: Economics, Planning, and Policy. 12 (5): 408-414 (IF 2.2)

162. M Naqvi, E Dahlquista, **AS Nizami**, M Danish, S Naqvi, U Farooq, AS Quresi, M Rehan. 2017. Gasification integrated with small chemical pulp mills for fuel and energy production. Energy Procedia. 142: 977-983.
163. OKM Ouda, SA Raza, R Al-Waked, JF Al-Asad, **AS Nizami**. 2017. Waste-to-energy potential in the Western Province of Saudi Arabia. Journal of King Saud University - Engineering Sciences. 29(3): 212-220.
164. Ouda OKM, Raza SA, **Nizami AS***, Rehan M, Al-Waked R, Korres NE. 2016. Waste to energy potential: a case study of Saudi Arabia. Renewable & Sustainable Energy Reviews, 61: 328-340 (IF 16.3)
165. **AS Nizami***, OKM Ouda, M Rehan, AMO El-Maghraby, J Gardy, A Hassanpour, S Kumar, IMI Ismail. 2016. The potential of Saudi Arabian natural zeolites in energy recovery technologies. Energy, 108:162-171 (IF 9.0)
166. T Iqbal, **AS Nizami**, S Eckhoff, MLA Barreto, Y Sadef, M Rehan, WM Budzianowski, OKM Ouda, K Shahzad. 2017. Biomass conservation using an optimized drying process for Energy Sorghum. Renewable Energy Focus. 19–20: 1–7 (IF 4.8)
167. R Miandad, **AS Nizami***, M Rehan, M Barakat, I Khan, A Mustafa, IMI Ismail, JD Murphy. 2016. Influence of temperature and reaction time on the conversion of polystyrene waste to pyrolysis liquid oil. Waste Management. 58: 250–259 (IF 7.1)
168. Rathore D, **AS Nizami**, Pant D, Singh A. 2016. Key issues in estimating energy and greenhouse gas savings of biofuels: challenges and perspectives. Biofuel Research Journal, 10: 380-393 (IF 2.0)
169. R Miandad, MA Barakat, AS Aburiazaiza, M Rehan, **AS Nizami***. 2016. Catalytic pyrolysis of plastic waste: a review. Process Safety and Environmental Protection, 102: 822–838 (IF 7.8)
170. Y Sadef, TG Poulsen, K Habib, T Iqbal, **AS Nizami**. 2016. Uncertainty in degradation rates for organic micro-pollutants during full-scale sewage sludge composting. Waste Management. 56: 396–402 (IF 7.1)
171. A Demirbas, A. Bafail, **AS Nizami**. 2016. Heavy oil upgrading: unlocking the future fuel supply. Petroleum Science and Technology 34 (4), 303-308 (IF 1.4)
172. Shahzad K, Čučekb L, Sagir M, **Nizami AS**, Tariq I, Almeelbia T, Ismail IMI. 2016. A case study for developing eco-efficient street lighting system in Saudi Arabia. Chemical Engineering Transactions. 52: 1141-1146.
173. L Lai, S Kumar, R Chintala, VN Owens, D Clay, J Schumacher, **AS Nizami**, SS Lee, R Rafique. 2016. Modeling the impacts of temperature and precipitation changes on soil CO_2 fluxes from a Switchgrass stand recently converted from cropland. Journal of Environmental Sciences, 43:15-25 (IF 6.3)
174. I Samun, R Saeed, M Abbas, M Rehan, **AS Nizami***, ZZ Asam. 2017. Assessment of bioenergy production from solid waste. Energy Procedia. 142: 655-660.
175. AS Qureshi, I Khushk, AA Simiar, CH Ali, M Naqvi, M Danish, A Ahmed, H Majeed, ANM Jatt, M Rehan, **AS Nizami**. 2017. Fruit waste to energy through open fermentation. Energy Procedia. 142: 904-909.
176. H Qari, M Rehan, **AS Nizami***. 2017. Key issues in algae biofuels: a short review. Energy Procedia. 142: 898-903.
177. M Rehan, **AS Nizami**, O Ouda, J Gardy, G Raza, M Naqvi, IM Ismail. 2017. Waste to energy: a case study of Madinah city. Energy Procedia. 142: 688-693.
178. **AS Nizami***, M Rehan, OKM Ouda, K Shahzad, Y Sadef, T Iqbal, IMI Ismail. 2015. An argument for developing waste-to-energy technologies in Saudi Arabia, Chemical Engineering Transactions, 45:337-342.
179. M Rehan, **AS Nizami**, K Shahzad, OKM Ouda, IMI Ismail, T Almeelbi, T Iqbal, A Demirbas. 2016. Pyrolytic liquid fuel: a source of renewable electricity generation in Makkah. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects. 38 (17): 2598-2603 (IF 2.9)
180. M Rehan, **AS Nizami**, O Taylan, BO Al-Sasi, A Demirbas. 2016. Determination of wax content in crude oil. Petroleum Science and Technology, 34 (9): 799-804 (IF 1.4)
181. A Demirbas, H Alsulami, **AS Nizami**. 2015. The natural gas potential of Saudi Arabia. Energy Sources, Part A: Recovery, Utilization and Environmental Effects. 38:18, 2635-2642 (IF 2.9)

182. A Demirbas, M Rehan, BO Al-Sasi, **AS Nizami**. 2016. Evaluation of natural gas hydrates as a future methane source. Petroleum Science and Technology, 34 (13): 1204-1210 (IF 1.4)
183. N Rahmanian, SH Bt Ali, M Homayoonfard, NJ Ali, M Rehan, Y Sadef, **AS Nizami***. 2015. Analysis of physiochemical parameters to evaluate the drinking water quality in the state of Perak, Malaysia. Journal of Chemistry. Vol. 2015, Article ID 716125, 10 pages, DOI:10.1155/2015/716125 (IF 2.6)
184. Tahir MS, Shahzad K, Shahid Z, Sagir M, Rehan M, **Nizami AS***. 2015. Producing methane enriched biogas using solvent absorption method, Chemical Engineering Transactions, 45, 1309-1314.
185. Shahzad K, Rehan M, Ismail IMI, Sagir M, Tahir MS, Bertok B, **Nizami AS***. 2015. Comparative life cycle analysis of different lighting devices, Chemical Engineering Transactions, 45, 631-636.
186. Y Sadef, **AS Nizami**, SA Batool, MN Chaudhary, OKM Ouda, ZZ Asam, K Habib, M Rehan, A Demirbas. 2015. Waste-to-energy and recycling value for developing integrated solid waste management plan in Lahore. Energy Sources, Part B: Economics, Planning, and Policy, 11(7): 571 – 581 (IF 4.6)
187. A Demirbas, BO Al-Sasi, **AS Nizami**. 2015. Conversion of waste tires to liquid products via sodium carbonate catalytic pyrolysis. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 38 (16): 2487–2493 (IF 2.9)
188. T Iqbal, S Eckhoff, AF Syed, **AS Nizami**, Y Sadef. 2015. Airflow resistance of chopped miscanthus on drying platform. Transactions of ASABE (American Society of Agricultural and Biological Engineers), 58(2): 2151-0032 (IF 1.238)
189. **AS Nizami***. 2015. How can we achieve sustainable living using indigenous knowledge? International Journal of Agricultural and Environmental Research. 1: 18-29. ISSN: 2414-8245.
190. Y Hong, **AS Nizami**, M Pourbafrani, BA Saville, HL MacLean. 2013. Impact of cellulase production on environmental and financial metrics for lignocellulosic ethanol. Biofuels, Bioproducts, Biorefinery, 7 (3): 303-313 (IF 3.9)
191. A Orozco, **AS Nizami**, JD Murphy, E Groom. 2013. Optimizing the thermophilic hydrolysis of grass silage in a two-phase anaerobic digestion system. Bioresource Technology, 143: 117-125 (IF 9.0)
192. T Thamsiriroj, **AS Nizami**, JD Murphy. 2012. Why does mono-digestion of grass silage fail in long term operation? Applied Energy, 95, 64-76 (IF 11.0)
193. T Thamsiriroj, **AS Nizami**, JD Murphy. 2012. Use of modelling to aid design of a two-phase grass digestion system. Bioresource Technology, 110: 379-389 (IF 9.0)
194. **AS Nizami**, A Orozcoc, E Groom, B Dieterich, JD Murphy. 2012. How much gas can we get from grass? Applied Energy. 92, 783–790 (IF 11.0)
195. **AS Nizami,** JD Murphy. 2011. Optimizing the operation of a two-phase anaerobic digestion system digesting grass silage. Environmental Science & Technology. 45 (17), 7561–7569 (IF 11.3)
196. A**S Nizami**, A Singh, JD Murphy. 2011. Design, commissioning, and start-up of a sequentially fed leach bed reactor complete with an Upflow anaerobic sludge blanket digesting grass silage. Energy & Fuels, 25 (2), 823–834 (IF 5.3).
197. A Singh, **AS Nizami***, NE Korres, JD Murphy. 2011. The effect of reactor design on the sustainability of grass biomethane. Renewable & Sustainable Energy Reviews, 15 (3), 1567-1574 (IF 16.3)
198. **AS Nizami***, Molander S, Asam ZZ, Rafique R, Korres NE, Kiely G, Murphy JD. 2011. Comparative Analysis of the EIA system of Developed and Developing Countries: Cases of Hydroelectric Power Plants in Pakistan, Norway, and Sweden. International Journal of Sustainable Development & World Ecology, 18 (2), 134-142 (IF 7.7)
199. J Brown, **AS Nizami**, JD Murphy. 2011. Assessing the cost of biofuel production with increasing penetration of the transport fuel market: a case study of gaseous biomethane in Ireland. Renewable & Sustainable Energy Reviews, 15 (9), 4537-4547 (IF 16.3)
200. Z Asam, TG Poulsen, **AS Nizami**, R Rafique, G Kiely, JD Murphy. 2011. How can we improve biomethane production per unit of feedstock in biogas plants? Applied Energy, 88 (6), 2013-2018 (IF 11.0)

201. **AS Nizami**, T Thamsiriroj, A Singh, JD Murphy. 2010. The role of leaching and hydrolysis in a two phase grass digestion system. Energy & Fuels, 24 (8), 4549–4559 (IF 5.3)
202. NE Korres, A Singh, **AS Nizami**, JD Murphy. 2010. Is grass biomethane a sustainable transport biofuel? Biofuels, Bioproducts, Biorefinery, 4:310–325 (IF 3.9)
203. **AS Nizami**, JD Murphy. 2010. What type of digester configurations should be employed to produce biomethane from grass silage? Renewable & Sustainable Energy Reviews, 14:1558–1568 (IF 16.3)
204. A Singh, D Pant, NE Korres, **AS Nizami**, S Prasad, JD Murphy. 2010. Key issues in life cycle assessment of ethanol production from lignocellulosic biomass: Challenges and perspectives. Bioresource Technology, 10:5003–5012 (IF 9.0)
205. R Rafique, TG Poulsen, **AS Nizami***, ZZ Asam, JD Murphy, G Kiely. 2010. Effect of thermal, chemical and thermo-chemical pre-treatments to enhance methane production. Energy, 35:4556-4561 (IF 9.0)
206. **AS Nizami**, NE Korres, JD Murphy. 2009. A review of the integrated process for the production of grass biomethane. Environmental Science & Technology, 43 (22), 8496–8508 (IF 11.3)

Peer-Reviewed Conference Papers

207. **AS. Nizami**. Zero Waste and Circular Economy in Asian World. 5th International Conference on Renewable Energy, Sustainable Environmental, Agricultural and Artificial Intelligence Technologies (i-RESEAT-2023), 8-20th December 2023 in Thammasat University, Pathumtani, Thailand.
208. M Alzahrani, M Rehan, **AS Nizami**. Potential of waste-to-energy technology in Saudi Arabia – impact of Hajj and Umrah visitors and global waste reduction trends. 69th Canadian Chemical Engineering Conference, October 20-23, 2019 in Halifax, NS, Canada.
209. Z Asam, M Ajmal, R Saeed, M Abbas, M Ahmad, **AS Nizami**. 2019. Assessment of opportunities and challenges in raising awareness for efficient community participation and role in source segregation based solid waste recycling project. HERAKLION 2019. 7th International Conference on Sustainable Solid Waste Management, 26-29 June 2019, Crete. Greek.
210. I Ali, H Bahaitham, M Saleem, A Salam, R Naebulharam, **AS Nizami**, M Rehan. 2019. Linear versus Non-linear Adsorption Kinetics of Methylene Blue on Raw and Chemically Activated Sawdust. HERAKLION 2019. 7th International Conference on Sustainable Solid Waste Management, 26-29 June 2019, Crete. Greek.
211. M Waqas, M Rehan, MN Anwar, MD Khan, **AS Nizami**. 2019. Agronomic and Environmental Remedial Benefits of Biochar: Current Challenges, and Future Perspectives. HERAKLION 2019. 7th International Conference on Sustainable Solid Waste Management, 26-29 June 2019, Crete. Greek.
212. MN Anwar, A Fayyaz, NF Sohail, M Baqar. M Iftikhar, M Rehan, M Waqas, **AS Nizami**. 2019. Investigation of Carbon Dioxide Sequestration Potential of Pure and Nano Particles Doped Biochar. HERAKLION 2019. 7th International Conference on Sustainable Solid Waste Management, 26-29 June 2019, Crete. Greek.
213. M Ali, M Aslam, A Khan, MA Gilani, **AS Nizami**, AL Khan. 2019. Mixed matrix membranes incorporated with sonication-assisted zif-8 nanofillers for industrial wastewater treatment. HERAKLION 2019. 7th International Conference on Sustainable Solid Waste Management, 26-29 June 2019, Crete. Greek.
214. M Aslam, AL Khan, **AS Nizami**, M Rehan, J Kim. 2019. Anaerobic treatment of domestic sewage using novel anaerobic fluidized bed membrane bioreactor under energy recovery and biofouling control. HERAKLION 2019. 7th International Conference on Sustainable Solid Waste Management, 26-29 June 2019, Crete. Greek.
215. M Aslam, M Yasin, AL Khan, **AS Nizami**, J Kim. 2019. Hybrid membrane bioreactor for the treatment of industrial wastewater. HERAKLION 2019. 7th International Conference on Sustainable Solid Waste Management, 26-29 June 2019, Crete. Greek.

216. JM Alghazo, F Alanezi, M Rehan, **AS Nizami**, MH Salameh, OKM Ouda. 2018. The Economic and Environmental Value of Electronic Waste Recycling in the GCC countries. NAXOS2018 (6th International Conference on Sustainable Solid Waste Management) 13-16 June 2018, Greece.
217. M Rehan, IMI Ismail, **AS Nizami**. Municipal solid waste and circular economies: a case study of Madinah city. Sardinia 2017. Sixteenth International Waste Management and Landfill Symposium. 2 - 6 October 2017, Italy.
218. M Rehan, J Gardy, A Demirbas, WM Budzianowski, **AS Nizami**. Waste to biodiesel refinery: a case study of Saudi Arabia. 2nd Renewable Energy Sources - Research and Business RESRB 2017 conference, June 19-21, 2017, Wrocław, Poland. RESRB2017.0059.
219. J Gardy, M Rehan, A Hassanpour, X Lai, **AS Nizami**. Influence of homogenous and heterogeneous catalysts on biodiesel production. 2nd Renewable Energy Sources - Research and Business RESRB 2017 conference, June 19-21, 2017, Wrocław, Poland. RESRB2017.0060.
220. **AS Nizami***, M Rehan, M Syamsiro, OKM Ouda. The recycling of municipal solid waste and circular economies: a case study of Saudi Arabia. 2nd Renewable Energy Sources - Research and Business RESRB 2017 conference, June 19-21, 2017, Wrocław, Poland. RESRB2017.0067.
221. M Syamsiro, S Maarif, W Widyawidura, **AS Nizami**, M Rehan, IMI Ismail. Feasibility study of pilot scale gasification systems for rice husk power generation in Java Island, Indonesia. 2nd Renewable Energy Sources - Research and Business RESRB 2017 conference, June 19-21, 2017, Wrocław, Poland. RESRB2017.0069.
222. Miandad R, A.S. Aburiazaiza, Rehan M, Barakat MAEF, Ismail IM, **Nizami AS***. Thermal and catalytic pyrolysis of waste tires. 8th Student Scientific Forum. 2017. King Abdulaziz University, Jeddah, Saudi Arabia.
223. M Waqas, AS Aburiazaiza, **AS. Nizami***. Utilizing the potential of natural zeolites and biochar for process improvement of food waste composting. 7th Scientific Forum, held 7-8 December 2016 in King Abdulaziz University, Jeddah, Saudi Arabia.
224. R Miandad, MA Barakat, AS Aburiazaiza, M Rehan, IMI Ismail, **AS Nizami***. Thermal and catalytic pyrolysis of waste tires. 7th Scientific Forum, held 7-8 December 2016 in King Abdulaziz University, Jeddah, Saudi Arabia.
225. IMI Ismail. **AS Nizami***. Waste-based biorefineries in developing countries: an imperative need of time. Paper presented at The Canadian Society for Civil Engineering: 14th International Environmental Specialty Conference, in London, Ontario, Canada. 2016, June 1-4. Available online: http://ir.lib.uwo.ca/csce2016/London/Environmental/9/.
226. **Nizami AS***, Rehan M, Shahzad K, Ismail IMI. Development of algae biorefinery in Saudi Arabia: a source of bioenergy and bioproducts. 1st Renewable Energy Sources - Research and Business RESRB 2016 conference, June 22-24, 2016, Wrocław, Poland, RESRB2016.0021.
227. T Iqbal, **AS Nizami**, S Eckhoff, MLA Barreto, Y Sadef, M Rehan, K Shahzad. Biomass conservation using an optimized drying process for energy sorghum bagasse. 1st Renewable Energy Sources - Research and Business RESRB 2016 conference, June 22-24, 2016. Wroclaw, Poland. RESRB2016.0016.
228. **AS Nizami***, S Zafar, M Rehan, K Shahzad, R Miandad, MB Baig, T Almeelbi, IMI Ismail, OKM Ouda. The environmental and economic value of waste recycling in Makkah. Conference: 16th Scientific Symposium for Hajj, Umrah and Madinah visit. Held on 24-25 May 2016 in Makkah, Saudi Arabia. DOI: 10.13140/RG.2.1.1336.2804
229. M Rehan, **AS Nizami**, K Shahzad, R Miandad, IMI Ismail, T Almeelbi, OKM Ouda. Conversion of plastic waste into energy and value-added products in Makkah city. Conference: 16th Scientific Symposium for Hajj, Umrah and Madinah visit. Held on 24-25 May 2016 in Makkah, Saudi Arabia.
230. **AS Nizami***, MI Rashid, M Rehan, K Shahzad, S Zafar, OKM Ouda, IMI Ismail. The potential of construction and demolition waste recycling in Saudi Arabia. 2016. Conference. 1st Saudi Conference on Environment – King Khalid University. Held on 8-9 March 2016.
231. K Shahzad, M Rehan, **AS Nizami**, IMI Ismail. Sustainable energy systems: Life cycle energy efficiency of lighting technology. 1st Saudi Conference on Environment – King Khalid University. Held on 8-9 March 2016.
232. **AS Nizami***, M Rehan, IMI Ismail, T Almeelbi, OKM Ouda. Waste biorefinery in Makkah: a solution to convert waste produced during Hajj and Umrah Seasons into wealth. Conference: 15th

Scientific Symposium for Hajj, Umrah and Madinah visit. Held on May 2015 in Medinah, Saudi Arabia. DOI: 10.13140/RG.2.1.4303.6560

233. R Miandad, M Barakat, M Rehan, I Khan, IMI Ismail, **AS Nizami***. The effect of temperature and retention time on the conversion of plastic waste into liquid fuel through pyrolysis. Seven Scientific Forum (SSF, 2015). Held at King Abdulaziz University, Jeddah. 9-10 December 2015. Saudi Arabia.
234. **AS Nizami***, M Rehan, J Gardy, A Hassanpour, T Iqbal, Iqbal MI Ismail. The potential of natural zeolites in energy recovery technology from waste plastic. The 7th International Conference on Sustainable Energy & Environmental Protection (SEEP), the British University in Dubai- UAE November 23-25, 2014. DOI: 10.13140/2.1.1227.1680
235. ZZ Asam, H Zhang, M O'Connor, C O'Driscoll, **AS Nizami**, L Xiao. Potential of using nano-articles to remove hydrocarbons and heavy metals from oil and gas industry wastewater. 6th International Conference on Chemical, Biological and Environmental Engineering (ICBEE 2014). 15-16 September 2014. Paris, France.
236. **AS Nizami***, M Rehan, R Rafique, IM Ismail. 2014. Development of waste to energy technologies in Saudi Arabia: perspectives and challenges. The 7th International Conference on Sustainable Energy & Environmental Protection (SEEP), the British University in Dubai- UAE on November 23-25, 2014.
237. JD Murphy, **AS Nizami**, T Thamsiriroj, B Smyth, N Korres, A Singh, J Browne, E Allen, D Wall. 2013. Biogas Process Optimisation. International Energy Agency workshop, Berne, Switzerland. 18th April 2013. DOI: 10.13140/2.1.2147.6647
238. Asam ZZ, Zhang H, Lei W, Chen Y, O'Connor M, O'Driscoll C, **Nizami AS**, Xiao L. 2014. Using nanotechnology to treat wastewater from offshore oil and gas industry – a feasibility study. The conference, Atlantic Ireland 2014. Organized by The Irish Shelf Petroleum Studies Group of the Petroleum Infrastructure Program (PIP-ISPSG). 20 October, Hilton Hotel Dublin, Ireland.
239. A Orozco, **AS Nizami**, JD Murphy, E Groom. Evaluation of a pretreatment process for improved methane production from grass silage. Progress in Biogas II. Biogas production from agricultural biomass and organic waste. International Congress, March 30-April 1, 2011. The University of Hohenheim, Stuttgart, Germany. DOI: 10.13140/2.1.3633.2488
240. JD Murphy, B Smyth, **AS Nizami**, T Thamsiriroj, A Singh, N Korres. The potential for biomethane as a transport fuel in Ireland. In, Biofuels Directive to biobased Transport Systems in 2020. IEA Bioenergy Task 39 Subtask Policy and Implementation Workshop, Dresden, Germany, June 2-5, 2009.
241. A Singh, NE Korres, **AS Nizami**, JD Murphy. Biomethane from agricultural waste: A clean vehicular biofuel. International Conference on Environment Energy and Development from Johannesburg to Kopenhagen ICEED-2010, Sambalpur University, Orissa, India. December 10-12, 2010. DOI: 10.13140/2.1.3895.3928
242. NE Korres, CO'Brien, B Smyth, **AS Nizami**, T Thamisirioj, R Schulte, JD Murphy. A preliminary analysis of energy balance and greenhouse gas (GHG) emissions of biomethane production as a transport fuel from grass/silage. A case study for Ireland. Society of Environmental Toxicology and Chemistry (SETAC) Conference, Goteborg, Sweden, 31 May – 4 June 2009.
243. R Rafique, TG Poulsen, **AS Nizami** and ZZ Asam. 2009. Pre-treatment of de-watered pig manure to enhance methane yield in anaerobic digestion plants. The 3rd International Conference on Sustainable Energy and Environmental Protection (SEEP 2009). Dublin, Ireland. Volume 2, pp 70-75.
244. **AS Nizami**, S Molander, ZZ Asam and R Rafique. 2009. The differences between EIA systems' In paper' and 'In practice' in developed and developing countries for hydroelectric power plants. The 3rd International Conference on Sustainable Energy and Environmental Protection. Dublin, Ireland. Volume 2, pp 314-318.
245. K Shahzad, I Ulfat, **AS Nizami**. The Issues of sustainable solid waste management system in developing countries. International seminar on 'Societies of Tomorrow,' held in Regina-Saskatchewan, Canada on 12-16 May 2008. DOI: 10.13140/RG.2.1.4223.0727/1.
246. ZZ Asam, TG Poulsen, **AS Nizami**, Rafique R. 2009. Optimization of biogas plants using energy crops and manure separation technologies. The 3rd International Conference on Sustainable Energy and Environmental Protection. Dublin, Ireland. Volume 2, pp 108-114.

Book Chapters

247. H Hosseinzadeh-Bandbafha, S Aghaei, M Aghbashlo, M Kiehbadroudinezhad, VK Gupta, P Mohammadi, **AS Nizami**, Y Yang, M Tabatabaei. 2023. Biodiesel plants: real-world sustainability analysis using environmental and social life cycle assessment. In, Biodiesel: real-world designs, economics, and sustainability. Elsevier Inc. ISBN: 978-0128203613. USA.
248. A Aqeel, J Zafar, P Mohammadi, M Tabatabaei, M Aghbashlo, TMI Mahlia, **AS Nizami**. 2023. Biodiesel: the fundamentals. In, Biodiesel: real-world designs, economics, and sustainability. Elsevier Inc. ISBN: 978-0128203613. USA.
249. P Mohammadi, A Zenouzi, M Chai, **AS Nizami**, SS Lam, VK Gupta, M Aghbashlo, M Tabatabaei. 2023. Biodiesel plants operation: prominent parameters, process control, and troubleshooting. In, Biodiesel: real-world designs, economics, and sustainability. Elsevier Inc. ISBN: 978-0128203613. USA.
250. P Mohammadi, **AS Nizami**, VK Gupta, M Aghbashlo, M Tabatabaei. 2023. Quality control in biodiesel production plants. In, Biodiesel: real-world designs, economics, and sustainability. Elsevier Inc. ISBN: 978-0128203613. USA.
251. H Hosseinzadeh-Bandbafha, M Kiehbadroudinezhad, P Mohammadi, **AS Nizami**, VK Gupta, S Aghaei, M Aghbashlo, M Tabatabaei. 2023. Biodiesel plants: real-world economics, case studies of plants failure, and way forward. In, Biodiesel: real-world designs, economics, and sustainability. Elsevier Inc. ISBN: 978-0128203613. USA.
252. M Shabbir, MN Anwar, H Saif, E Tahir, A Tahir, M Rehan, R Tanveer, M Aghbashlo, M Tabatabaei, **AS Nizami**. 2023. Policy and regulatory constraints in the biodiesel production and commercialization. In, Biodiesel: real-world designs, economics, and sustainability. Elsevier Inc. ISBN: 978-0128203613. USA.
253. H Amiri, M Tabatabaei, **AS Nizami**. 2023. Higher alcohols: applications as fuels and chemicals. In, Higher alcohols production platforms: from strain development to process design. Elsevier Inc. ISBN: 9780323917568. USA.
254. A Khalili-Samani, R Rezahasani, B Satari, M Aghbashlo, H Amiri, M Tabatabaei, **AS Nizami**. 2023. Sugar fermentation: C2 (ethanolic) platform. In, Higher alcohols production platforms: from strain development to process design. Elsevier Inc. ISBN: 9780323917568. USA.
255. H Hosseinzadeh-Bandbafha, M Kiehbadroudinezhad, M Aghbashlo, VK Gupta, P Mohammadi, H Amiri, **AS Nizami**, M Tabatabaei. 2023. Life cycle sustainability assessment of higher alcohol: energy, environmental, and social indicators. In, Higher alcohols production platforms: from strain development to process design. Elsevier Inc. ISBN: 9780323917568. USA.
256. R Rezahasani, A Khalili-Samani, M Aghbashlo, H Amiri, M Tabatabaei, **AS Nizami**. 2023. Sugar fermentation: C4 platforms. In, Higher alcohols production platforms: from strain development to process design. Elsevier Inc. ISBN: 9780323917568. USA.
257. M Tabatabaei, A Alidadi, M Dehhaghi, HKS Panahi, SS Lam, **AS Nizami**, M Aghbashlo, GS Jouzani. 2020. Fungi as Bioreactors for Biodiesel Production. In Fungi in Fuel Biotechnology. pp. 39-67. https://doi.org/10.1007/978-3-030-44488-4_3. Springer, Cham.
258. H Hosseinzadeh-Bandbafha, M Tabatabaei, M Aghbashlo, M Rehan, **AS Nizami**. 2020. Determining key issues in life-cycle assessment of waste biorefineries. In, Waste Biorefinery 2020 Jan 1 (pp. 515-555). https://doi.org/10.1016/B978-0-12-818228-4.00019-8. Elsevier.
259. SN Ali, MN Anwar, **AS Nizami**, M Baqar. 2020. Microbial and technological advancements in biogas production. Current Developments in Biotechnology and Bioengineering, pp.137-161. https://doi.org/10.1016/B978-0-444-64309-4.00006-4. Elsevier.
260. MN Anwar, M Shabir, H Saif, SH Khan, E Tahir, A Tahir, Z Naeem, M Rehan, **AS Nizami**. 2020. Microbial and Biotechnological Advancement in Biogas Production. In: Singh A., Srivastava S., Rathore D., Pant D. (eds) Environmental Microbiology and Biotechnology. Springer, Singapore. https://doi.org/10.1007/978-981-15-7493-1_2.
261. MN Anwar, M Iftikhar, B Khusbakhat, NF Sohail, M Baqar, **AS Nizami**. 2019. Carbon Dioxide; Sources of and Environmental Issues. In the book, 'Carbon Sequestration Vol 1: Introduction and Biochemical Methods', edited by Inamuddin. Springer.

262. M Waqas, NE Korres, MD Khan, **AS Nizami**, F Deeba, I Ali, H Hussain. 2019. Advances in the Concept and Methods of Seed Priming. In the book, Hasanuzzaman M., Fotopoulos V. (eds) Priming and Pretreatment of Seeds and Seedlings. Springer, Singapore. DOI: https://doi.org/10.1007/978-981-13-8625-1_2.
263. MN Anwar, M Baqar, **AS Nizami.** 2019. Nanotechnology application in biofuel production: applications, challenges, and future perspectives. In the book, 'Principles of Biofuels: Refining and Engine Performance'. McGraw Hill Publishers.
264. M Waqas, M Rehan, MD Khan, **AS Nizami***. 2018. Conversion of food waste to fermentation products. In the book, 'Encyclopedia of food security and sustainability,' edited by Pasquale Ferranti, Elliot Berry, Anderson Jock. Pages 501-509. ISBN: 9780128126875. DOI: 10.1016/B978-0-08-100596-5.22294-4. Elsevier.
265. M Saghir, M Rehan, **AS Nizami***. 2018. Recent trends in gasification based waste to energy. In the book, 'Gasification for low-grade feedstock' edited by Y Yun. ISBN 978-1-78923-288-2. Intech Publisher. DOI: 10.5772/intechopen.74487
266. M Waqas, M Rehan, AS Aburiazaiza, **AS Nizami***. 2018. Wastewater Biorefinery based on the microbial electrolysis cell: opportunities and challenges. In the book, 'Progress and Recent Trends in Microbial Fuel Cells,' edited by K Dutta and P Kundu. Elsevier Inc. USA. DOI: 10.1016/B978-0-444-64017-8.00017-8
267. R Miandad, M Rehan, OKM Ouda, MZ Khan, IMI Ismail, **AS Nizami***. 2017. Waste-to-Hydrogen Energy in Saudi Arabia: Challenges and Perspectives. In the book, 'Biohydrogen Production: Sustainability of Current Technology and Future Perspective.' DOI: 10.1007/978-81-322-3577-4_11. Springer India.
268. R Miandad, M Rehan, **AS Nizami***, M Barakat, IMI Ismail, 2016. The Energy and Value-Added Products from Pyrolysis of Waste Plastics. In the book, 'Recycling of Solid Waste for Biofuels and Bio-chemicals' under Series Title: Environmental Footprints and Eco-design of Products and Processes. DOI: 10.1007/978-981-10-0150-5_12. Springer Science+Business Media, Singapore.
269. **AS Nizami**, G Mohanakrishna, U Mishra, D Pant. 2016. Trends and Sustainability Criteria for the Liquid Biofuels. Biofuels: Production and Future Perspectives (Eds.) CRC Press. pp.59-95. DOI: 10.1201/9781315370743-1
270. **AS Nizami***, IMI Ismail. 2013. Life-cycle Assessment of Biomethane from Lignocellulosic Biomass. Chapter in 'Life cycle assessment of renewable energy sources.' Green Energy and Technology book series. DOI: 10.1007/978-1-4471-5364-1_4. Publisher: Springer-Verlag London Ltd.
271. **AS Nizami***. Anaerobic digestion: processes, products, and applications. 2012. Chapter in 'Anaerobic Digestion: Processes, Products, and Applications.' DOI: 10.13140/2.1.4550.7529, ISBN: 978-1-61324-420-3. Nova Science, Commack, New York.
272. **AS Nizami***, BA Saville, HL MacLean. 2013. Anaerobic Digesters: Perspectives and Challenges. Chapter in 'Bioenergy Production by Anaerobic Digestion Using Agricultural Biomass and Organic Waste.' Publisher: Routledge, Taylor, and Francis. DOI: 10.13140/2.1.1405.0241, US. Pp 139-151.
273. NE Korres, **AS Nizami**. 2013. Variation in Anaerobic Digestion: Need for Process Monitoring. Chapter in 'Bioenergy Production by Anaerobic Digestion Using Agricultural Biomass and Organic Waste.' Publisher: Routledge, Taylor, and Francis. DOI: 10.13140/2.1.3764.3202, US. Pp 194-231.
274. NE Korres, T Thamsiriroj, BM Smyth, **AS Nizami**, A Singh, JD Murphy. 2011. Grass Biomethane for Agriculture and Energy. Chapter in, 'Genetics, Biofuels and Local Farming Systems.' Volume 7, Pp 5-49. DOI: 10.1007/978-94-007-1521-9_2. Springer-Verlag London Ltd.

Books

275. S Zhang, G Luo, Y Shi, A Bialowiec, **AS Nizami**. 2024. Biomass Conversion and Organic Waste Utilization. MDPI-Multidisciplinary Digital Publishing Institute. ISSN 2227-9717
276. M Tabatabaei, Hamid Amiri, **AS Nizami**. 2023. Biodiesel: real-world designs, economics, and sustainability. Elsevier Inc. ISBN: 978-0128203613. USA

277. M Tabatabaei, Hamid Amiri. **AS Nizami**. 2023. Higher alcohols production platforms: from strain development to process design. Elsevier Inc. ISBN: 9780323917568. USA.
278. M Rehan, **AS Nizami**, M Tabatabaei, K Moustakas, AL Khan, MZ Khan. 2021. Nanocatalysts in Biofuel Process Optimization. ISSN 1664-8714. DOI 10.3389/978-2-88971-809-2. Frontiers.
279. M Rehan, **AS Nizami**, U Rashid, MR Naqvi. 2019. Waste Biorefineries: Future Energy, Green Products and Waste Treatment. ISSN 1664-8714. DOI 10.3389/978-2-88945-993-3. Frontiers.
280. OP Karthikeyan, R Banu, S Xu, **AS Nizami**, Kaliappan, Visvanathan. Organic Resource Management in Asia Pacific Countries. *In preparation*, Elsevier Inc. USA

Non-Peer Reviewed Publications (Newspaper, Magazine and Official report)

281. **EnviroCities e-Magazine**: Generating Revenue from Waste Management. Available from: http://en.envirocitiesmag.com/articles/issue-19/5.pdf
282. **Forbes Magazine**: Turning Waste into Fuel for a Greener Future. Forbes Middle East, Guide 2016.
283. **Arab News**: Jeddah researchers explore alternative energy sources. Published in Arab News on Friday 4 March 2016. Available from: http://www.arabnews.com/saudi-arabia/news/889996
284. **Makkah-Al-Mukarmmah**: 3-Electricity production scenarios of fuel from Makkah waste (سيناريوهات لإنتاج الكهرباء من نفايات مكة المكرمة). Makkah-Al-Mukarmmah Newspaper. April 25. 2005. Available from: http://cees.kau.edu.sa/Pages-Makkah-News-Ar.aspx
285. **Saudi Gazette**: Raising waste management awareness vital in the Kingdom. Published on October 12, 2015. Available from: http://saudigazette.com.sa/business/raising-waste-management-awareness-vital-in-kingdom/
286. **EcoMENA**: إعادة تدوير النفايات في المملكة العربية السعودية. Published on March 21, 2016. Available from: http://www.ecomena.org/recycling-saudi-arabia-ar/
287. **EcoMENA**: **AS Nizami***. Waste-to-energy potential in Saudi Arabia. Article Published in Blog Magazine' EcoMENA; Echoing Sustainability'. December 23, 2015. Available from: http://www.ecomena.org/wastetoenergy-saudiarabia/
288. **Bioenergy Consult**: **AS Nizami***. Recycling and waste-to-energy prospects in Saudi Arabia. Article Published in Blog BioEnergy Consult, Powering Clean Energy Future. November 10, 2015. Available from: http://www.bioenergyconsult.com/recycling-waste-to-energy-saudi-arabia/
289. **EPA-Ireland**: JD Murphy, NE Korres, A Singh, B Smyth, **AS Nizami**, T Thamsiriroj. 2010. Grass biomethane. Environmental Protection Agency (EPA), Ireland. EPA Climate Change Research Programme 2007-2013. (2007-CCRP-1.7), Johnstown Castle, Co. Wexford, Ireland. http://www.epa.ie/downloads/pubs/research/climate/
290. **EcoMENA**: **AS Nizami**. Recycling prospects in Saudi Arabia. Published in Blog, 'EcoMENA: Echoing Sustainability,' on 26 January 2016. Available from: http://www.ecomena.org/recycling-in-saudi-arabia/

Selected Invited Lectures/Talks

1. **AS Nizami**. How can we achieve circular economy and zero Landfilling through waste biorefinery in Pakistan? 5th International Conference on Sustainable Energy Technologies (ICSET 2023) 14-15 December 2023 U.S. Pakistan Centre for Advanced Studies in Energy. UET Peshawar.
2. **AS Nizami**. Implementing Zero Waste and Circular Economy Principles in Developing Nations. 4th International Conference on Emerging Trends in Earth and Environmental Sciences (ETEES 2023). 4-6 December 2023 at College of Earth and Environmental Sciences (CEES), University of the Punjab, Lahore, Pakistan
3. **AS Nizami**. How Can We Achieve Circular Economy and Zero Landfilling through Waste Biorefinery? 5th International Symposium on Architecture Research Frontiers and Ecological

Environment (ARFEE 2023) co-organized by Central South University and Zhejiang University of Water Resources and Electric Power. 25 December 2023.

4. **AS Nizami**. Zero Waste and Circular Economy in Pakistan. 2nd International Conference on Knowledge Based Textiles. February 14 – 15, 2023
5. **AS Nizami**. Identification of Hurdles in Transition Towards Hydrogen Economy and Solutions. Panel discussion, International Symposium on Hybrid Materials for Energy Conversion and Storage. Thursday, 16th Feb 2023 – GC University Lahore.
6. **AS Nizami**. Role of stakeholders in the development of industry-specific environmental quality standards. Symposium by Biological Club, Superior University Lahore. 7 June 2022.
7. **AS Nizami**. Why was my paper rejected? An editor's perspective. Kampus Bintulu Sarawak, University Putra Malaysia, 25 May 2022.
8. **AS Nizami**. A successful journey from research to publication. Office of research innovation and commercialization (ORIC), Government College University Lahore, Pakistan. 17th February 2022.
9. **AS Nizami**. Zero waste and circular economy. Zero waste lifestyle and circular economy emerging challenges and response action. Mission cleaner Pakistan. 4th February 2022.
10. **AS Nizami**. Potential of Integrated Waste Biorefinery in Circular Economy. 5th International Conference on Energy Conservation and Efficiency (ICECE 2022). IEEE. Virtual Event. 16-17 March 2022.
11. **AS Nizami**. Biorefinery; Emerging Trends in Circular Bioeconomy for Sustainable Development. 1st International Conference of Sustainable Development Goals. Lahore College for Women University Lahore, Pakistan. 29-31 March 2022.
12. **AS Nizami**. Bioenergy: emerging trends in circular bioeconomy for sustainable development. 4th National Symposium on Advances in Biotechnology Trends, Challenges and Opportunities. March 2-3, 2022. Department of Bioinformatics & Biotechnology, Government College University Faisalabad, Pakistan.
13. **AS Nizami**. Smog in Lahore; sources, impacts and its remedies. Government College Township, Lahore. 16 December 2021.
14. **AS Nizami**. An imperative need for integrated waste management system in Pakistan. Department of Environmental Sciences, University of Gujrat. 12 October 2021.
15. **AS Nizami**. Role of academia I energy transition of Pakistan. Road to COP26. Sustainable Development Policy Institute (SDPI), Islamabad. 26 August 2021.
16. **AS Nizami**. Integrated Waste Biorefinery for the Pakistan's Future. 4th International Conference on Biosciences – ICBS, Quaid-e-Azam University Pakistan, 15 June 2021.
17. **AS Nizami**. Role of Waste Biorefineries in Future Energy and Green Products. 8th International Conference on Sustainable Solid Waste Management – THESSALONIKI 2021. National Technical University of Athens. June 23-25, 2021.
18. **AS Nizami**. Plastics Waste Driven Factories: A Cure or Curse? International Webinar on Plastic Pollution Free Pakistan. 29 July 2021. College of Earth and Environmental Sciences University of the Punjab, Lahore Pakistan.
19. **AS Nizami**. Achieving Planet's Energy and Waste Treatment by Waste Biorefineries. International Conference on Sustainable Solid Waste Treatments and Management - SWTM 2021. July 15-18, 2021, Yangling, China
20. **AS Nizami**. Potential of Integrated Waste Biorefinery in Circular Economy. International Conference on Energy Conservation and Efficiency (ICECE 2021). IEEE. Virtual Event. 16-17 March 2021.
21. **AS Nizami**. Integrated Waste Biorefineries: Future for Sustainable Development Goals. International Forum on Aquaculture Services (FORAS). 10th Series: Green Technology. University Malaysia Terengganu, Malaysia. Virtual Event. 2 February 2021.
22. **AS Nizami**. Concept of Waste-driven Factory and Circular Economy. VENICE 2020. 8th International Symposium on Energy from Biomass and Waste. Virtual Event. 16-19 November 2020.

23. **AS Nizami**. Development of a Sustainable Biomass Supply in Pakistan. Webinar by UNIDO, NUST, gef, and Pakistan Biomass Cluster. August 27, 2020.
24. **AS Nizami**. Preparedness in Context of Climate Change Adaptation and Disaster Reduction. Master the Disaster – Digital Punjab Hackathon by UNDP. June 27-28, 2020.
25. **AS Nizami**, MN Anwar, M Rehan. Waste-to-energy options in municipal solid waste management. IEEC & BWR 2019, Integrated Management of Environment, Water, and Energy. December 10-13, 2019, Busan Korea.
26. **AS Nizami**. Waste-to-Energy Options in Municipal Solid Waste Management. Promotion of Energy Conservation in Municipalities of SAARC, Second Webinar - II. July 25, 2019. SAARC Energy Centre (SEC), Islamabad, Pakistan.
27. **AS Nizami**, M Rehan. How Far are We from Integrating the Waste-to-Energy Technologies? 7th International Conference on Sustainable Solid Waste Management (Herkalion2019), 26-29 June 2019, Aquila, Atlantis Hotel. Heraklion, Crete Island, Greece.
28. **AS Nizami**, M Rehan. Waste-driven factory to integrate waste-to-energy technologies. The 3rd International Conference on Bioresources, Energy, Environment, and Materials Technology 2019 (BEEM2019). The Hong Kong Polytechnic University, 12-15 June 2019.
29. **AS Nizami**. The Potential of Methane Energy in Saudi Arabia. Workshop organized by Clean Development Mechanism Designated National Authority (CDMDNA) and Madar Group. Held on 26 February 2019 at Al Mashreq Boutique Hotel, Riyadh, Saudi Arabia.
30. **AS Nizami**. Waste-driven Factories: A Promising Nexus of Energy-Waste-Economy, Research & Development. 2019 Seminar series. Held on 20 February at Center of Excellence in Environmental Studies (CEES), King Abdulaziz University. Jeddah, Saudi Arabia.
31. **AS Nizami**. Sustainable Solid Waste Management in Makkah. Saudi Society for Environmental Sciences. Held on 15 October 2018, King Faisal Conference Center, King Abdulaziz University, Jeddah, Saudi Arabia.
32. **AS Nizami**. Industrial Waste Management in Saudi Arabia: Current Perspectives and Future Directions. International Conference on Sustainability & Environment by the Royal Commission of Jubail and Yanbu. Held on 13-14 May 2018, Jubail industrial city, Saudi Arabia.
33. **AS Nizami**. Priorities for future sustainable and resilient cities in the Middle East. EnviroCities2017. 7th International EnviroCities Conference and Exhibition. 7-8 November 2017, held at King Fahad civic Center, Yanbu Industrial City, Saudi Arabia.
34. **AS Nizami**. An integrated waste management system in the Kingdom. 12 October 2017. CEES 2017 Seminar Series. Center of Excellence in Environmental Studies (CEES), King Abdulaziz University. Jeddah, Saudi Arabia.
35. **AS Nizami**. Environmental management within the frame of deregulation, localization, and technology. 6th GCC Environment Forum. 5-6 April. Jeddah Hilton, Jeddah, Saudi Arabia.
36. **AS Nizami**. Industrial Waste Management in Saudi Arabia: current perspectives and future directions. The 2nd Annual Kingdom Waste Management & Recycling Conference, held by Fleming Gulf on 26-27 April 2016 in Al-Khobar, Saudi Arabia.
37. **AS Nizami**. Connecting energy paradigms in Saudi Arabia: facts & hopes. 08 December 2016. Seminar in Center of Excellence in Environmental Studies (CEES), King Abdulaziz University. Jeddah, Saudi Arabia.
38. IMI Ismail. **AS Nizami**. Integrated solid waste management systems for economic and urban cities of Saudi Arabia. Scientific Meeting of Saudi Society of Environmental Sciences (SSES) on Sunday 24 April 2016 in King Fahd Library, King Abdulaziz University.
39. Al-Blooshi, UI Ahmed, W Ul-Hassan, M Shammuot, OKM Ouda, **AS Nizami**. Public awareness of MSW challenges in Greater Dammam area. The 2nd Annual Kingdom Waste Management & Recycling Conference, held by Fleming Gulf on 26-27 April 2016 in Al-Khobar, Saudi Arabia.
40. Miandad R, Barakat M.A.E.F, A.S. Aburiazaiza, Rehan M, Ismail IMI, **Nizami AS**. Conversion of plastics waste into pyrolysis liquid oil: a case study of Saudi Arabia. 4th Environmental Science Conference on "Water & Food Security in a Changing Environment." 8-10 August 2016. Baragali Campus, University of Peshawar, Pakistan.
41. **AS Nizami**. Potential of recycling and waste-to-energy in Jeddah. 5th Edition, Waste Management & Recycling Summit, Moving the Kingdom of Saudi Arabia towards a Sustainable Future and Zero

Waste. Conference organized by NISPANA Innovative Platforms on 11-12 October 2015 at Le Meridian Hotel Jeddah, Saudi Arabia.

42. **AS Nizami**. Where are we heading with renewable and conventional energy resources? GCC Environment Forum – GEF conference 2015, held on 24-26 May at Al Faisaliah Hotel, Riyadh, Saudi Arabia.
43. **AS Nizami**. Waste-to-energy (WTE) in Jeddah: options and opportunities. Kingdom Waste Management Workshop. Fleming Gulf, held on 11-12 May 2015, Jeddah Marriott Hotel, Saudi Arabia.
44. **AS Nizami**. Waste biorefinery in Haramain Sharifain cities - converting waste into wealth. 5th International Envirocities Conference 2015 on 'From Waste to Energy,' held at Taibah University, Medina on 5-7 May 2015.
45. **AS Nizami**. Generation of bioenergy from high solid content feedstocks. Earth Day Seminar at Faculty of Meteorology, Environment and Arid Land Agriculture, held on 21 April 2015, King Abdulaziz University (KAU), Jeddah, Saudi Arabia.
46. **AS Nizami**. Integrated waste biorefinery in Makkah city for treating Hajj and Umrah wastes into energy and value-added products. A scientific forum on Environmental Issues & New Trends, held on 16 February 2015 at King Abdulaziz University, Jeddah, Saudi Arabia.
47. **AS Nizami**. Waste biorefinery in Saudi Arabia; a way forward to a bio-based economy. The Royal Commission International Conference on Latest Technologies of Industrial Waste Recycle and Reuse, held in 3–4 December 2014, in Jubail Industrial City. Saudi Arabia.
48. **AS Nizami**. Saudi Arabian Waste biorefinery; from concept to production. First Scientific Forum in the Recycling of Municipal Solid Waste. The Center of Excellence in Environmental Studies (CEES), King Abdulaziz University, Jeddah. 24-25 November 2014.
49. **AS Nizami**. Potential digester configuration for Grass Biomethane. Environmental Protection Agency (EPA) conference on' Grass as a source of renewable gaseous fuel.' EPA Grass Biomethane, University College Cork (UCC), Cork, Ireland. 15 April. 2010.
50. A Singh, NE Korres, **AS Nizami**, JD Murphy. Biomethane from agricultural waste: A clean vehicular biofuel. International Conference on Environment Energy and Development from Johannesburg to Kopenhagen ICEED-2010, Sambalpur University, Orissa, India. December 10-12, 2010.

Poster Presentations

1. Rehan M, Ismail, I.M. **Nizami AS***. Hydrogen production and wastewater treatment through MEC technology in Saudi Arabia. KAUST research conference WDRC 'Changing Paradigms of wastewater treatment from waste to resource.' 27-29 March 2017. King Abdullah University of Science and Technology (KAUST), Thuwal. Saudi Arabia.
2. Miandad R, Barakat M.A.E.F, A.S. Aburiazaiza, Rehan M, Ismail, I.M. **Nizami AS***. Catalytic pyrolysis of plastic waste with natural zeolite. 9th International Workshop on Advanced Material. Ras Al Khaimah, UAE. 18-22 Feb 2017.
3. R Miandad, M Barakat, M Rehan, I Khan, IMI Ismail, **AS Nizami***. Influence of temperature and retention time on the pyrolytic conversion of Saudi Arabian waste plastic to liquid fuel. International Conference on Applied Chemistry (ICAC, 2015) held at King Abdulaziz University, Jeddah, Saudi Arabia. 18-19 November 2015.
4. **AS Nizami**, JD Murphy. Anaerobic digestion of grass using a continuously stirred tank reactor (CSTR). International Energy Agency Biofuels Symposium, University College Cork (UCC), Cork, Ireland. September 14, 2008.
5. **AS Nizami**, JD Murphy. Leach Beds coupled with UASB digester for optimal biogas production from the grass. In: Biofuels Directive to biobased Transport Systems in 2020, IEA Bioenergy Task 39, Subtask Policy and Implementation Workshop, Dresden, Germany, June 2-5, 2009.
6. T Mahmood, ZZ Asam, **AS Nizami**. 2013. Co-digestion of biodegradable municipal waste with agricultural residues – a developing concept and market. Presented at NUI Galway Energy Night held at the National University of Ireland (NUI) Galway, Ireland on 28th February 2013.

Achievements, Prizes and Awards

- Senior Editor - Renewable & Sustainable Energy Reviews (Elsevier - Impact Factor 16.3) 2017-2023
- Ranked among Top 2% Scientists Worldwide (for years 2020, 2021, 2022, 2023, 2024) by Stanford University, USA.
- Dr. Nizami's achievements have been selected as a Role Model by US Times Higher Education World University Rankings 2019.
- Dr. Nizami's UNEP report published, 'Waste Management Outlook for WEST ASIA 2019, WASTE TOWEALTH'
- Fellow of Stimulus Fund by the Irish Department of Agriculture, Food and Marine for the project, 'Developing grass for sustainable renewable energy generation and value-added products' under the National Development Plan 2007 – 2013.
- Outstanding achievement award in scientific publication as a faculty member at King Abdulaziz University for the academic year 2016-2017.
- Session Chair in the International Conference on Sustainable Solid Waste Treatments and Management—SWTM 2021. July 15-18, 2021, Yangling, China.
- Six research projects are approved and funded by the Ministry of Education, Saudi Arabia (2015 - 2019).
- A research project budget of US $518,000 is approved by NSTIP-KACST, Saudi Arabia (Approved 2016).
- 'Top ISI Cited Journals' award by Deanship of Scientific Research (DSR) at King Abdulaziz University, Saudi Arabia.
- Most downloaded and highly cited paper, 'Catalytic pyrolysis of plastic waste: a review' in Process Safety and Environmental Protection (Elsevier), Web of Science, 2016-Present.
- Outstanding reviewer award by Elsevier for Journals: BITE, CATENA, ECM, JCLP, RSER, JEM, Energy, Applied Energy, and Waste Management for 2016-Present.
- Top reviewers for King Abdulaziz University, Publons Peer Review Awards 2017.
- Top reviewers for Energy, Engineering, and Environmental Sciences subjects, Publons Peer Review Awards 2017.
- Top reviewers for Multidisciplinary, Social Science, General, Environment/Ecology, and Engineering subjects, Publons Peer Review Awards 2018.
- ResearchGate score (42.12) is higher than 97.5% of ResearchGate members.
- Highly cited paper, 'Waste to energy potential: a case study of Saudi Arabia,' in the top 1% of the academic field of Engineering, Web of Science.
- Highly cited paper, 'The potential of Saudi Arabian natural zeolites in energy recovery technologies,' in the top 1% of the academic field of Engineering, Web of Science.
- Most downloaded paper, 'Effect of plastic waste types on pyrolysis liquid oil' in International Biodeterioration & Biodegradation (Elsevier), April 2017-Present.
- Most downloaded paper, 'Influence of temperature and reaction time on the conversion of polystyrene waste to pyrolysis liquid oil' in Waste Management (Elsevier), (2017).
- Highly cited paper, 'Developing waste biorefinery in Makkah: A way forward to convert urban waste into renewable energy,' in the top 1% of the academic field of Engineering, Web of Science.
- Highly cited paper, 'Microbial electrolysis cells for hydrogen production and urban wastewater treatment: A case study of Saudi Arabia,' in the top 1% of the academic field of Engineering, Web of Science.

Organized Conferences

- 3rd International Conference on Environment and Sustainable Development (ICESD 2021). Sustainable Development Study Centre (SDSC), Government College University, 6-8 April 2021.
- First Scientific Forum in the Recycling of Municipal Solid Waste held in CEES, King Abdulaziz University, Saudi Arabia, 24-25 November 2014.

- Grass as a source of renewable gaseous fuel. Environmental Protection Agency-funded Conference. University College Cork, Cork, Ireland, April 15, 2010.
- Commercializing 1st and 2nd Generation Liquid Biofuels from Biomass. International Energy Agency Biofuels Symposium, IEA Bioenergy Task 39. University College Cork (UCC), Cork, Ireland. September 14, 2008.

Training/Professional Courses

- Blackboard Basics in English Course, Deanship of E-Learning and Distance Education, 19 September 2018, King Abdulaziz University, Jeddah, Saudi Arabia.
- Continuing Professional Development (CPD) Course, BME Global Ltd. 7-8 November 2017, held at King Fahad Civic Center, Yanbu Industrial City, Saudi Arabia.
- Continuing Professional Development (CPD) Course, BME Global Ltd. 5-6 April. Jeddah Hilton, Jeddah, Saudi Arabia.
- Anaerobic digestion, a training course & Site Visit to Ringsend Anaerobic Digestion Plant. Cré-Composting Association of Ireland, Ballsbridge Inn Hotel, Dublin. 24 June 2009.
- Current biosolids disposal options, a training course. University of the Punjab, Lahore. December 10-11, 2004.
- Waste management as a mean of resource protection, a training course. University of the Punjab, March 26-27, 2005.
- Solid waste disposal by a deep slurry injection method: a training course. University of the Punjab, February 10-13, 2005.

Established International Collaboration

- **USA** (South Dakota State University, University of Arkansas, University of Illinois)
- **UK** (University of Glasgow, Leeds University, De Montfort University, University of Bradford, University of Ulster, Newcastle University, Aston University)
- **Canada** (University of Western Ontario, London)
- **Belgium** (University of Antwerp, Flemish Institute for Technological Research (VITO), Aristotle University of Thessaloniki)
- **China** (Chinese Academy of Sciences, East China University of Science and Technology, Donghua University, Jiangnan University)
- **KSA** (Umm-Al Qura University, Prince Mohamed Bin Fahd University, King Khalid University)
- **Sweden** (Karlstad University, Malardalen University, Royal Institute of Technology)
- **Australia** (Macquarie University, RMIT University)
- **Ireland** (University College Cork)
- **Hungary** (University of Pannonia)
- **Pakistan** (National University of Science and Technology, University of the Punjab, Quaid-i-Azam University, University of Gujrat, COMSATS Institute of Information Technology, University of Engineering and Technology, National Centre for Physics, University of Sindh, Government College University Lahore, University of Peshawar)
- **Spain** (Polytechnic University Catalonia)
- **Austria** (Graz University of Technology)
- **Netherlands** (Netherlands Enterprise Agency,
- **Italy** (Italian National Agency for New Technologies)
- **Brazil** (Federal University of Vicosa)
- **Malaysia** (Universiti Teknologi PETRONAS, University Putra Malaysia, Universiti Technologi Malaysia, Universiti Teknologi MARA)
- **Greece** (National Technical University of Athens)
- **Egypt** (Cairo University, National research Centre, Central metallurgical R& D Institute)
- **Jordon** (Jordon University of Science and Technology)
- **Indonesia** (Janabadra University, Gadjah Mada University)