Muhammad Hassan

Associate Professor

US-Pakistan Center for Advanced Studies in Energy

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About

Dr. Muhammad Hassan is working as Associate Professor in the US-Pakistan Center for Advanced Studies in Energy. Dr. Muhammad Hassan has a PhD in Bioenvironmental & Energy Engineering. Dr. Muhammad Hassan has published 97 research articles & conference papers having a citation count of 2745, carried out 5 projects and filed 2 intellectual property.

Qualifications

PhD in Bioenvironmental & Energy Engineering 2014 - 2017
Nanjing Agricultural University , China

MS in Bioenvironmental & Energy Engineering 2013 - 2014
Nanjing Agricultural University , China

B.Sc (Hon) in Energy Systems Engineering 2007 - 2011
University of Agriculture Faisalabad , Pakistan

Experience

Associate Professor 2024- Present
US-Pakistan Center for Advanced Studies in Energy

Associate Professor 2022 - 2024
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2019 - 2022
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2018 - 2019
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2017 - 2018
US-Pakistan Center for Advanced Studies in Energy

Assistant Executive Engineer 2012 - 2013
University of Agricultural Faisalabad , University of Agricultural Faisalabad

Awards

Young Scientist by CSC 2016
Young distinguished scientist award is provided by Chinese scholarship council is the highest rank award provided to young PhD scholars for their notable contribution and publication to highest rank peer reviewed journals.

Professional Memberships

PEC Since 2011

Research Projects

National Projects

Adsorptive recovery of phosphate from eutrophic water using biowaste derived carbonaceous material and its feasibility in fertilizer use 2022

Funding Agency: NUST
Amount: PKR 1,000,000.00
Status: Completed

Bench-Scale Demonstration of an Integrated Waste-to-Energy Process for Municipal Solid Waste Management: A Step Toward Circular Bio-economy 2022

Funding Agency: HEC
Amount: PKR 11,000,000.00
Status: Approved_inprocess

Demonstration of Technical Feasibility, Cluster Development and Commercial Viability of Modern Biomass Energy Conversion Technologies in Pakistan. 2019

Funding Agency: UNIDO
Amount: PKR 11,200,000.00
Status: Completed

Designing and Fabrication of Semi-Continuous Stirring Tank Reactors to Evaluate and Optimize the Anaerobic Co-Digestion of Poultry Manure 2017

Funding Agency: USAID
Amount: PKR 3,000,000.00
Status: Completed

Methane enhancement by treatment of rice husk co-digested with cow manure 2017

Funding Agency: HEC
Amount: PKR 500,000.00
Status: Completed

International Projects

Research Articles

An integrated evaluation framework for evaluating renewable-based building sector implementation in remote/off-grid areas with varying climatic zones 2025

Rida Maryam Syed Ali Abbas Kazmi Muhammad Hassan Mustafa Anwar
Energy and Buildings , Volume:341, Article Number 115803
Impact Factor: 6.600 | **Quartile:** 1
DOI: https://doi.org/10.1016/j.enbuild.2025.115803

Socio-Economic Analysis for Adoption of Smart Metering System in SAARC Region: Current Challenges and Future Perspectives 2025

Muhammad Hassan Syyed Ahmad Ali Shah Mustafa Anwar Muhammad Yousif Abdul Haseeb Tariq Syed Ali Abbas Kazmi Zain Khalid
Sustainability , Volume 17(15), Article Number 6786
Impact Factor: 3.300 | **Quartile:** 2
DOI: https://doi.org/10.3390/su17156786

Advanced characterization of hemp biomass pyrolysis: Bioenergy recovery and environmental implications 2025

Rashid Minhas Asif Hussain Hajirah Kanwal Muhammad Hassan Arslan Khan Syed Sheraz Daood Israf Ud din Ali Bahadar
Sustainable Chemistry and Pharmacy , Volume 45, Article Number 101989
Impact Factor: 5.500 | **Quartile:** 1 | **Citations:** 1
DOI: https://doi.org/10.1016/j.scp.2025.101989

Application of Portable Near-Infrared Spectroscopy for Quantitative Prediction of Protein Content in Torreya grandis Kernels Under Different States 2025

Yuqi Gu Haosheng Zhong Jianhua Wu Kaixuan Li Yu Huang Huimin Fang Muhammad Hassan Lijian Yao Chao Zhao
Foods , Article Number 14(11), Article Number 1847
Impact Factor: 4.700 | **Quartile:** 1
DOI: https://doi.org/10.3390/foods14111847

Photo- and electrocatalytic hydrogen production from dye-degraded wastewater using samarium-doped ceria as a catalyst 2025

Hijab Haider Hira Azeem Asif Hussain Muhammad Hassan Rabia Liaquat Ali Bahadar Muhammed Ali S.A. Mustafa Anwar

International Journal of Hydrogen Energy, Volume:111, Pages:606-622

Impact Factor: 8.100 | **Quartile:** 1 | **Citations:** 4

DOI: https://doi.org/10.1016/j.ijhydene.2025.02.188

Reinforcement of smart campus grid infrastructure for sustainable energy management in buildings across horizon 2030 2025

Mahnoor Abbasi Syed Ali Abbas Kazmi Muhammad Zubair Iftikhar Mustafa Anwar Muhammad Hassan Thamer A.H. Alghamdi Mohammed Alenezi

Results in Engineering, Volume:25, Article Number:104300, Pages:30

Impact Factor: 6 | **Quartile:** 1 | **Citations:** 2

DOI: https://doi.org/10.1016/j.rineng.2025.104300

Influences of Granular Activated Carbon on Methane Production Performance of Cow Manure and Corn Straw in Semi-continuous Stirring Tank Reactor: Organic Loading Rate Optimization and Economic Considerations 2025

Muhammad Aamir Muhammad Hassan

Waste and Biomass Volarization, Pages 1-13

Impact Factor: 2.600 | **Quartile:** 3

DOI: https://doi.org/10.1007/s12649-025-02983-0

Techno-economic and composite performance assessment of fuel cell-based hybrid energy systems for green hydrogen production and heat recovery 2025

Abdul haseeb Tariq Mustafa Anwar Syed Ali Abbas Kazmi Muhammad Hassan Ali Bahadar

International Journal of Hydrogen Energy, Volume:104, Pages:444-462

Impact Factor: 8.100 | **Quartile:** 1 | **Citations:** 22

DOI: https://doi.org/10.1016/j.ijhydene.2024.04.018

Effect of dental ceramic coating on thermal, mechanical, and dielectric properties of glass fiber-reinforced wave transparent composite 2025

Muhammad Qasim Muhammad talha Shabbir Tayyab Hussain Imran Haider Muhammad Hassan Mustafa Anwar

Journal of Materials Science: Materials in Electronics, Volume:36, Issue:6, Article Number 391

Impact Factor: 2.800 | **Quartile:** 2

DOI: https://doi.org/10.1007/s10854-025-14388-9

Co-Pyrolysis of Almond Shells and Polyurethane: Pyrolytic Products Distributions, Parametric Influences Through Machine Learning, Economic Feasibility and Contributions Towards Circular Economy 2025

Muhammad Aamir Muhammad Hassan

Waste and Biomass Valorization, Pages:13

Impact Factor: 2.6 | **Quartile:** 3

DOI: https://doi.org/10.1007/s12649-025-02921-0

Techno-economic analysis of green hydrogen production from wind and solar along CPEC special economic zones in Pakistan 2024

Joshi Laila Mustafa Anwar Muhammad Hassan Syed Ali Abbas Kazmi Rizwan Ali Muhammed Ali S.A. Muhammad Zeeshan Rafique

International Journal of Hydrogen Energy, Volume 96, Pages 811-828

Impact Factor: 8.100 | **Quartile:** 1 | **Citations:** 8

DOI: https://doi.org/10.1016/j.ijhydene.2024.11.140

Socio-economic benefits and policy implications of generating sustainable energy from municipal solid waste in Pakistan 2024

Waqas Ahmad Muhammad Hassan Shah Fahad Bin Masud Muhammad Saad Amjad Fatin Samara Zeshan Mustafa Anwar Muhammad Zeeshan Rafique Tahir Nawaz

Energy and Climate Change, Volume 5 , Article Number 100124

Impact Factor: 5.800 | **Quartile:** 2 | **Citations:** 8

DOI: https://doi.org/10.1016/j.egycc.2023.100124

Thermokinetic investigation of Polyethylene Terephthalate (PET) plastic over biomass fly ash (BFA) catalyst using pyrolysis process through non-isothermal thermogravimetric analysis 2024

Ali Raza Waqar Ul Habib Khan Asif Hussain Khoja Arslan Khan Muhammad Hassan Rabia Liaquat Majid Ali Israf Ud Din Abdulaziz Al-Anazi

Sustainable Chemistry and Pharmacy, Volume: 42, Article Number: 101856, Pages:15

Impact Factor: 5.5 | **Quartile:** 1 | **Citations:** 2

DOI: https://doi.org/10.1016/j.scp.2024.101856

Grade Classification of Camellia Seed Oil Based on Hyperspectral Imaging Technology 2024

Yuqi Gu Jianhua Wu Yijun Guo Sheng Hu Kaixuan Li Yuqian Shang Liwei Bao Muhammad Hassan Chao Zhao
Foods , Volume 13(20), Article Number 3331
Impact Factor: 4.700 | **Quartile:** 1 | **Citations:** 2
DOI: https://doi.org/ 10.3390/foods13203331

Quantitative Prediction of Acid Value of Camellia Seed Oil Based on Hyperspectral Imaging Technology Fusing Spectral and Image Features 2024
Yuqi Gu Lifang Shi Jianhua Wu Sheng Hu Yuqian Shang Muhammad Hassan Chao Zhao
Foods , Volume 13(20), Article Number 3249
Impact Factor: 4.700 | **Quartile:** 1 | **Citations:** 6
DOI: https://doi.org/ 10.3390/foods13203249

Colimoxin influences on the anaerobic co-digestion performance of chicken manure and wheat straw: volatile fatty acids generation and utilization trends and regression modelling 2024
Muhammad Aamir Muhammad Hassan
Environment, Development and Sustainability , Pages 1-20
Impact Factor: 4.700 | **Quartile:** 2 | **Citations:** 2
DOI: https://doi.org/10.1007/s10668-024-05375-x

Techno-economic and performance assessment of a hybrid fuel cell-based combined heat and power system for dairy industry 2024
Kashif Najeeb Abdul Haseeb Tariq Muhammad Hassan Mustafa Anwar Ali Bahadar Syed Ali Abbas Kazmi Muhammad Yousif
Environment Development and Sustainability , Pages 1-29
Impact Factor: 4.700 | **Quartile:** 2 | **Citations:** 3
DOI: https://doi.org/10.1007/s10668-024-05044-z

Techno-economic and environmental analysis of renewable energy integration in irrigation systems: A comparative study of standalone and grid-connected PV/diesel generator systems in Khyber Pakhtunkhwa 2024
Sheharyar Khattak Muhammad Yousif Shabieh Ul Hassan Muhammad Hassan Thamer A.H. Alghamdi
Heliyon , Volume 10, Issue 10, Article Number e31025
Impact Factor: 3.400 | **Quartile:** 1 | **Citations:** 18
DOI: https://doi.org/10.1016/j.heliyon.2024.e31025

Current and future implications of bitcoin mining on energy and climate change 2024
Muhammad Yousaf Bukhari Dr Abeera Ayaz Ansari Dr Muhammad Yousif Dr Muhammad Hassan Usama Hassan
MRS Energy and Sustainability , Pages: 14
Impact Factor: 3.300 | **Quartile:** 3 | **Citations:** 5
DOI: 10.1557/s43581-024-00084-4

Synergistic transformation: Kinetic and thermodynamic evaluation of co-pyrolysis for low-rank bituminous coal and polyurethane foam waste 2024
Zaid Mohammad Banyhani Waqar Ul Habib Khan Hala H. Abd El-Gawad Dr. Mustafa Anwar Dr. Asif Hussain Khoja Dr. Muhammad Hassan Dr. Rabia Liaquat Zeinhom M. El-Bahy
Process Safety and Environmental Protection, Volume 184, Pages 907-921
Impact Factor: 7.8 | **Quartile:** 1 | **Citations:** 16
DOI: 10.1016/j.psep.2024.01.041

Synergistic production of fuels from co-pyrolysis of lignite coal and waste plastic 2024
Asif Khan Dr Naseem Iqbal Dr. Tayyaba Noor Dr. Muhammad Hassan Dr. Javaid Akhter
Journal of the Energy Institute, Volume 113, Article Number: 101527
Impact Factor: 5.7 | **Quartile:** 2 | **Citations:** 7
DOI: 10.1016/j.joei.2024.101527

Energy, economic and environmental (3E) analyses of solar photovoltaic and fuel cell based hybrid energy system for a developing country: a worldwide approach to sustainable energy 2024
Maham Fazal Abdul Kashif Janjua Mustafa Anwar Muhammad Hassan Sehar Shakir Ali Bahadar
Environment, Development and Sustainability , Pages 1-28
Impact Factor: 4.9 | **Quartile:** 2 | **Citations:** 4
DOI: https://doi.org/10.1007/s10668-024-04677-4

Thermodynamic analysis of different modes of a multigeneration SOFC-CCHP system with freshwater production and LNG cold energy utilization 2023
Muhammad Uzair Azhar Mustafa Anwar Uneeb Masood Khan Muhammad Hassan Muhammed Ali S.A. Adeel Waqas Mahendra Rao Somalu Dr. Faisal Alresheedi

Energy Conversion and Management, Volume 297, Article Number 117730

Impact Factor: 10.4 | **Quartile:** 1 | **Citations:** 25

DOI: https://doi.org/10.1016/j.enconman.2023.117730

Efficient removal of hexavalent chromium Cr (VI) using magnesium-iron layered double hydroxide supported on orange peel (Mg-Fe LDH@OPP): A synthetic experimental and mechanism studies 2023

Waleed Usmani Muhammad Ali Inam Rashid Iftikhar Iqra Irfan Rabia Adnan Muhammad Bilal Khan Niazi Rizwan Khan Muhammad Hassan

Journal of Water Process Engineering, Volume 55, Article Number: 104233

Impact Factor: 7 | **Quartile:** 1 | **Citations:** 14

DOI: 10.1016/j.jwpe.2023.104233

A Sustainable Way to Determine the Water Content in Torreya grandis Kernels Based on Near-Infrared Spectroscopy 2023

Jiankai Xiang Yu Huang Shihao Guan Yuqian Shang Liwei Bao Xiaojie Yan Muhammad Hassan Lijun Xu Chao Zhao

Sustainability , Volume 15(16), Article Number 12423

Impact Factor: 3.9 | **Quartile:** 2 | **Citations:** 9

DOI: https://doi.org/10.3390/su151612423

Enhancement in anaerobic biogas conversion by visible light photocatalytic Pre-treatment of rice husk with indium vanadate decorated titanium dioxide nanocomposite 2023

Jamshaid Rashid Muhammad Hassan M. A. Barakat Ming Xu Talha Tufail Bhati Rajeev Kumar

Fuel , Volume 346, Article Number 128289

Impact Factor: 8.035 | **Quartile:** 1 | **Citations:** 10

DOI: https://doi.org/10.1016/j.fuel.2023.128289

Site suitability for solar and wind energy in developing countries using combination of GIS- AHP; a case study of Pakistan 2023

Muhammad Ali Raza Muhammad Yousif Muhammad Hassan Muhammad Numan Syed Ali Abbas Kazmi

Renewable Energy , Volume 206, Pages 180-191

Impact Factor: 8.634 | **Quartile:** 1 | **Citations:** 66

DOI: https://doi.org/10.1016/j.renene.2023.02.010

Physiochemical characteristics and methane yield of pretreated rice straw, canola straw, and banana plant substrate with buffalo dung by anaerobic co-digestion: sustainable future for Pakistan 2023

Altaf Alam Noonari Muhammad Hassan Rasool Bux Mahar

Biomass Conversion and Biorefinery , Pages 1-23

Impact Factor: 4.050 | **Quartile:** 2 | **Citations:** 2

DOI: https://doi.org/10.1007/s13399-023-03802-z

Techno-economic analysis of PV systems installed by using innovative strategies for smart sustainable agriculture farms 2023

Yahya Aziz Abdul Kashif Janjua Muhammad Hassan Mustafa Anwar Saira Kamwal Muhammad Yousif

Environment, Development and Sustainability , Pages 1-22

Impact Factor: 4.080 | **Quartile:** 2 | **Citations:** 15

DOI: https://doi.org/10.1007/s10668-023-02919-5

Mussel shell based CaO nano-catalyst doped with praseodymium to enhance biodiesel production from castor oil 2022

Sana Gohar Khan Muhammad Hassan Mustafa Anwar Zeshan Uneeb Masood Khan Chao Zhao

Fuel , Volume 330, Article Number 125480

Impact Factor: 8.035 | **Quartile:** 1 | **Citations:** 40

DOI: https://doi.org/10.1016/j.fuel.2022.125480

Technical and Economic Evaluation of a 50 MW Solar Power Plant in Quetta † 2022

Gohram Khan Dr. Muhammad Hassan Dr. Mustafa Anwar Dr. Adeel Waqas Dr. Sehar Shakir Jamsheed Sajid

Engineering Proceedings , Volume:20, Issue:1, Article Number: 46

Impact Factor: N/A | **Citations:** 2

DOI: 10.3390/engproc2022020046

Operation of microalgal horizontal twin layer system for treatment of real wastewater and production of lipids 2022

Sahar Saleem Zeshan Rashid Iftikhar Muhammad Arshad Muhammad Zeeshan Ali Khan Muhammad Hassan

Journal of Water Process Engineering, Volume 48, Article Number 102932

Impact Factor: 7.340 | **Quartile:** 1 | **Citations:** 7

DOI: 10.1016/j.jwpe.2022.102932

Investigating the characterisation, kinetic mechanism, and thermodynamic behaviour of coal-biomass blends in co-pyrolysis process 2022

Hamad Gohar Asif Hussain Khoja Abeera Ayaz Ansari Salman Raza Naqvi Rabia Liaquat Muhammad Hassan Khalil Hasni Umair Yaqoob Qazi Imtiaz Ali

Process Safety and Environmental Protection, Volume 163, Pages 645-658

Impact Factor: 6.158 | **Quartile:** 1 | **Citations:** 52

DOI: 10.1016/j.psep.2022.05.063

Challenges and Applications of Graph Signal Processing 2022

Muhammad Yousif Muhammad Yasin Mohsin Sohaib Tahir Chaudhary Muhammad Hassan Muhammad Abdul Manan Khan Waqas Ahmad Wattoo

International Journal of Electrical Engineering & Emerging Technology (IJEEET), Volume 5(1), Pages 08-15

Impact Factor: N/A

DOI: http://www.ijeeet.com/index.php/ijeeet/article/view/105

Proximate and elemental analysis of solid recovered fuel, its comparison with existing fossil fuels in terms of physical characteristics and economic benefits 2022

Waqas Ahmad Muhammad Hassan Zeshan Shah Fahad Bin Masud Saira Kamwal Ram Sarup Singh Mustafa Anwar Esmaeil Mehryar Chao Zhao

Bioresource Technology Reports, Volume 18, Article Number 101049

Impact Factor: 0 | **Citations:** 10

DOI: https://doi.org/10.1016/j.biteb.2022.101049

Praseodymium-doped Sr2TiFeO6-δ double perovskite as a bi-functional electrocatalyst for hydrogen production through water splitting 2022

Qassam Sarmad Uneeb Masood Khan Mutawara Mahmood Baig Muhammad Hassan Faaz Ahmed Butt Asif Hussain Rabia Liaquat Zuhair Subhani Khan Mustafa Anwar Muhammed Ali S.A.

Journal of Environmental Chemical Engineering, Volume 10, Issue 3, Article Number 107609

Impact Factor: 5.909 | **Quartile:** 1 | **Citations:** 38

DOI: 10.1016/j.jece.2022.107609

Co-digestion of chicken manure with goose manure and thermo-oxidative-treated wheat straw in CSTR: co-digestion synergistics and OLR optimization through kinetic modeling 2022

Muhammad Hassan Mustafa Anwar Ram Sarup Singh Chao Zhao Esmaeil Mehryar

Biomass Conversion and Biorefinery, Pages 1-12

Impact Factor: 4.987 | **Quartile:** 1 | **Citations:** 7

DOI: https://doi.org/10.1007/s13399-022-02757-x

Environmental Impact Assessments of the Renewable Energy Technologies Adaptation 2022

Abdul Basit Muhammad Hassan Saira Kamwal Mustafa Anwar Syed Ali Abbas Kazmi Abeera Ayaz Ansari

Pakistan Journal of Engineering and Technology, Volume 5, Number 2, Pages 100-103

Impact Factor: N/A

DOI: 2664-2042, ISSN (e): 2664-2050

Methane enhancement by the co-digestion of thermochemical alkali solubilized rice husk and cow manure: Lignocellulosics decomposition perspectives 2022

Muhammad Hassan Shah Fahad Bin Masud Mustafa Anwar Chao Zhao Ram Sarup Singh Esmaeil Mehryar

Biomass Conversion and Biorefinery, Pages 1-13

Impact Factor: 4.987 | **Quartile:** 1 | **Citations:** 9

DOI: https://doi.org/10.1007/s13399-022-02310-w

Combined oxidization and liquid ammonia pretreatment of bamboo of various ages and species for maximizing fermentable sugar release 2022

Jiajun Lu Mingyang Cheng Chao Zhao Qianjun Shao Muhammad Hassan

Bioresource Technology, Volume 343, Article Number 126085

Impact Factor: 11.4 | **Quartile:** 1 | **Citations:** 17

DOI: https://doi.org/10.1016/j.biortech.2021.126085

Effect of ZnO nanostructures on the performance of dye sensitized solar cells 2021

Ahad Hussain Javed Nadia Shahzad Muhammad Abdullah Khan Muniba Ayub Naseem Iqbal Muhammad Hassan Naveed Hussain Muhammad Imran Rameel Muhammad Imran Shahzad

Solar Energy, Volume 230, Pages 492-500

Impact Factor: 7.188 | **Quartile:** 2 | **Citations:** 41

DOI: https://doi.org/10.1016/j.solener.2021.10.045

Methane Refnement by Iron Oxide, Packed Column Water Scrubbing, and Activated Charcoal Scrubbing Techniques 2021

Shah Fahad Bin Masud Muhammad Hassan Faaz Ahmed Butt Ram Sarup Singh Asif Hussain Khoja Mustafa Anwar Waqas Ahmad

Waste and Biomass Valorization, Pages 1-13

Impact Factor: 3.703 | **Quartile:** 2 | **Citations:** 6
DOI: https://doi.org/10.1007/s12649-021-01629-1

Synthesis of cobalt loaded double perovskite Sr2TiFeO6-δ (STF) as a stable catalyst for enhanced hydrogen production via methane decomposition 2021

Uneeb Masood Khan Qassam Sarmad Mustafa Anwar Asif Hussain Khoja Muhammed Ali S.A. Zuhair S. Khan Muhammad Hassan Sehar Shakir

International Journal of Energy Research, Volume 45, Issue 14, Pages 20073-20088

Impact Factor: 4.672 | **Quartile:** 1 | **Citations:** 9
DOI: http://dx.doi.org/10.1002/er.7084

Design, sizing and economic feasibility of a hybrid PV/diesel/battery based water pumping system for farmland 2021

Muhammad Zeeshan Abid Muhammad Yousif Saleem Ullah Muhammad Hassan

International Journal of Green Energy, Pages 1-24

Impact Factor: 2.459 | **Quartile:** 2 | **Citations:** 21
DOI: https://doi.org/10.1080/15435075.2021.1954007

Techno-economic modeling of biomass gasification plants for small industries in Pakistan 2021

Muhammad Ali Qamar Adeel Javed Rabia Liaquat Muhammad Hassan

Biomass Conversion and Biorefinery, Pages 1-11

Impact Factor: 4.050 | **Quartile:** 2 | **Citations:** 3
DOI: https://doi.org/10.1007/s13399-021-01767-5

Performance Analysis of TiO2-Modified Co/MgAl2O4 Catalyst for Dry Reforming of Methane in a Fixed Bed Reactor for Syngas (H2, CO) Production 2021

Arslan Mazhar Asif Hussain Khoja Abul Kalam Azad Faisal Mushtaq Salman Raza Naqvi Sehar Shakir Muhammad Hassan Rabia Liaquat Mustafa Anwar

Energies, Volume 14(11), Article Number 3347

Impact Factor: 3.004 | **Quartile:** 3 | **Citations:** 24
DOI: https://doi.org/10.3390/en14113347

Multiple (TEES)-Criteria-Based Sustainable Planning Approach for Mesh-Configured Distribution Mechanisms across Multiple Load Growth Horizons 2021

Syed Ali Abbas Kazmi Usama Ameer Khan Waleed Ahmad Muhammad Hassan Fahim Ahmed Ibupoto Syed Basit Ali Bukhari Sajid Ali M. Mahad Malik Dong Ryeol Shin

Energies, Volume 14(11), Article Number 3128

Impact Factor: 3.252 | **Quartile:** 3 | **Citations:** 6
DOI: https://doi.org/10.3390/en14113128

Enhancing biogas production through co-digestion and thermal pretreatment of wheat straw and sunflower meal 2021

Asad Ayub Rajput Zeshan Muhammad Hassan

Renewable Energy, Volume 168, Pages 1-10

Impact Factor: 8.634 | **Quartile:** 1 | **Citations:** 39
DOI: https://doi.org/10.1016/j.renene.2020.11.149

Current challenges and innovative developments in pretreatment of lignocellulosic residues for biofuel production: A review 2021

Bilal Beig Muhammad Riaz Salman Raza Naqvi Muhammad Hassan Zhifeng Zheng Keikhosro Karimi Arivalagan Pugazhendhi A.E. Atabani Nguyen Thuy Lan Chi

Fuel, Volume 287, Article Number 119670

Impact Factor: 6.609 | **Quartile:** 1 | **Citations:** 189
DOI: https://doi.org/10.1016/j.fuel.2020.119670

Biomass ash characterization, fusion analysis and its application in catalytic decomposition of methane 2021

Muhammad Assad Munawar Asif Hussain Khoja Muhammad Hassan Rabia Liaquat Salman Raza Naqvi Muhammad Taqi Mehran Ali Abduallah Faisal Saleem

Fuel, Volume 285, Article Number 119107

Impact Factor: 6.609 | **Quartile:** 1 | **Citations:** 68
DOI: 10.1016/j.fuel.2020.119107

Enhanced methane generation and biodegradation efficiencies of goose manure by thermal-sonication pretreatment and organic loading management in CSTR 2020

Muhammad Hassan Chao Zhao Ding Weimin Chao Zhao Ding Weimin

Energy , Volume 198, Article Number 117370

Impact Factor: 7.147 | **Quartile:** 1 | **Citations:** 20

DOI: https://doi.org/10.1016/j.energy.2020.117370

Evolution of the Lignin Chemical Structure during the Bioethanol Production Process and Its Inhibition to Enzymatic Hydrolysis 2020

Chao Zhao Xianliang Qiao Qianjun Shao Zhongqing Ma Chao Zhao Xianliang Qiao Qianjun Shao Muhammad Hassan Zhongqing Ma

Energy Fuels , Volume 34(5), Pages 5938–5947

Impact Factor: 3.605 | **Quartile:** 2 | **Citations:** 131

DOI: https://doi.org/10.1021/acs.energyfuels.0c00293

Evolution of Lignin Chemical Structure during Bioethanol Production Process and Its Inhibition to Enzymatic Hydrolysis 2020

Chao Zhao Xianliang Qiao Qianjun Shao Zhongqing Ma Muhammad Hassan

Energy & Fuels , Volume 34, Issue 5, Pages 5938–5947

Impact Factor: 3.605 | **Quartile:** 2 | **Citations:** 131

DOI: DOI: 10.1021/acs.energyfuels.0c00293

Synergistic effect of hydrogen peroxide and ammonia on lignin 2020

Chao Zhao Xianliang Qiao Qianjun Shao Zhongqing Ma Lijian Yao Chao Zhao Xianliang Qiao Qianjun Shao Muhammad Hassan Zhongqing Ma Lijian Yao

Industrial Crops and Products , Volume 146, Article Number 112177

Impact Factor: 5.645 | **Quartile:** 1 | **Citations:** 115

DOI: https://doi.org/10.1016/j.indcrop.2020.112177

Effect of Buried Straw Layer Coupled with Fertigation on Florescence and Yield Parameters of Chinese Cabbage Under Greenhouse Environment 2020

Ghulam Rasool Xiangping Gou Zhenchang Wang Muhammad Hassan Muhammad Aleem Qaiser Javaid Sheng Chen Ghulam Rasool Xiangping Gou Zhenchang Wang Muhammad Aleem Qaiser Javaid Sheng Chen

Journal of Soil Science and Plant Nutrition, Pages 1-12

Impact Factor: 3.872 | **Quartile:** 2 | **Citations:** 15

DOI: https://doi.org/10.1007/s42729-019-00149-1

Methane enhancement by the co-digestion of soybean straw and farm wastewater under different thermo-chemical pretreatments 2020

Jiading Xiong Muhammad Hassan Wang Wenxin Ding Weimin

Renewable Energy , Volume 145, Pages 116–123

Impact Factor: 8.001 | **Quartile:** 1 | **Citations:** 28

DOI: https://doi.org/10.1016/j.renene.2019.05.102

Determination of moisture content in corn stover silage using near infrared spectroscopy 2019

Chao Zhao Qianjun Shao Zidong Yang Xiaofeng Xu Maoqun Zhang Xuefen Zhang Muhammad Hassan

International Journal of Agricultural and Biological Engineering, Volume 12(6), Pages 143-148

Impact Factor: 1.731 | **Quartile:** 2 | **Citations:** 72

DOI: 10.25165/j.ijabe.20191206.4914

Enhancement Methane Generation by Co-Digestion of Cow Dung and Grass (Cynodon dactylon) with Activated Sludge 2019

Fiaz Ahmad Sajid Maqbool Zahid Mehmood Khan Muhammad Hassan Baijing Qui Jing Ma Tahir Jameel

BioResources , Volume: 14, Issue: 3, Pages: 6822-6836

Impact Factor: 1.409 | **Quartile:** 2 | **Citations:** 3

DOI: 10.15376/biores.14.3.6822-6836

Structural Characterization of Corn Stover Lignin after Hydrogen Peroxide Presoaking Prior to Ammonia Fiber Expansion Pretreatment 2018

Xianliang Qiao Chao Zhao Qianjun Shao Muhammad Hassan

ENERGY & FUELS , Volume 32, Issue 5, Pages 6022-6030

Impact Factor: 3.021 | **Quartile:** 2 | **Citations:** 134

DOI: 10.1021/acs.energyfuels.8b00951

Ultrasound assisted alkaline pre-treatment of sugarcane filter mud for performance enhancement in biogas production 2018

Zahir Talha Abdelbagi Hamid Dong Guo Muhammad Hassan Cedric Okinda Weimin Ding Esmaeil Mehryar

International Journal of Agricultural and Biological Engineering, Volume 11, Issue 1, Pages 226-231

Impact Factor: 1.349 | **Quartile:** 2 | **Citations:** 11

DOI: 10.25165/j.ijabe.20181101.3441

Modeling and multi-response optimization for anaerobic co-digestion of oil refinery wastewater and chicken manure using by artificial neural network and the Taguchi method 2017

Esmaeil Mehryar Weimin Ding Abbas Hemmat Muhammad Hassan Zahir Talha Jalal Kafashan Hongying Huang

BioMed Research International, Article Number: 2036737

Impact Factor: 2.583 | **Quartile:** 2 | **Citations:** 11

DOI: https://doi.org/10.1155/2017/2036737

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Bioresource Technology 2024
Reviewed Papers for Journals
Impact Factor: 9.70

Heliyon 2024
Reviewed Papers for Journals
Impact Factor: 3.4

Water 2024
Reviewed Papers for Journals
Impact Factor: 3.0

Water 2024
Reviewed Papers for Journals
Impact Factor: 3.0

Waste and Biomass Valorization 2024
Reviewed Papers for Journals
Impact Factor: 2.6

Bioresource Technology 2024
Reviewed Papers for Journals
Impact Factor: 9.70

Wate 2024
Reviewed Papers for Journals
Impact Factor: 3.0

Water 2024
Reviewed Papers for Journals
Impact Factor: 3.0

Environment, Development and Sustainability 2024
Reviewed Papers for Journals
Impact Factor: 4.70

Water 2024
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Impact Factor: 3.0

Water 2024
Reviewed Papers for Journals
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Impact Factor: 4.70

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Reviewed Papers for Journals
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Resources 2023
Reviewed Papers for Journals
Impact Factor: 3.60

Resources 2023
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Impact Factor: 2.80

Membranes 2023
Reviewed Papers for Journals
Impact Factor: 3.09

Sustainability 2023
Reviewed Papers for Journals
Impact Factor: 3.889

Water 2023
Reviewed Papers for Journals
Impact Factor: 2.06

Sustainability 2023
Reviewed Papers for Journals
Impact Factor: 3.89

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Environmental Progress & Sustainable Energy 2023
Reviewed Papers for Journals
Impact Factor: 2.8

Agronomy Research 2023
Reviewed Papers for Journals
Impact Factor: 0

Biomass Conversion and Biorefinery 2023
Reviewed Papers for Journals
Impact Factor: 4.98

International Journal of Energy Research 2023
Reviewed Papers for Journals
Impact Factor: 4.6

Applied Sciences 2023
Reviewed Papers for Journals
Impact Factor: 2.7

Water 2023
Reviewed Papers for Journals
Impact Factor: 3.53

Catalysts 2022
Reviewed Papers for Journals
Impact Factor: 4.50

Sustainability 2022
Reviewed Papers for Journals
Impact Factor: 3.889

Processes 2022
Reviewed Papers for Journals
Impact Factor: 2.75

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Edited Journal Issue / Proceeding / Book
Impact Factor: 5.89

Biomass Conversion and Biorefinery 2022
Reviewed Papers for Journals
Impact Factor: 4.050

International journal of plant and soil sciencs 2022
Reviewed Papers for Journals
Impact Factor: NA

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Reviewed Papers for Journals
Impact Factor: 10.530

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Impact Factor: 3.889

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Reviewed Papers for Journals
Impact Factor: NA

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Reviewed Papers for Journals
Impact Factor: 5.19

International Energy Journal 2021
Reviewed Papers for Journals
Impact Factor: NA

2021
Edited Journal Issue / Proceeding / Book
Impact Factor: 5.89

2021
Reviewed Papers for Journals

2021
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2021
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Impact Factor: 4.22

2021
Reviewed Papers for Journals

2021
Reviewed Papers for Journals

2021
Reviewed Papers for Journals

2020
Reviewed Papers for Journals

2020
Reviewed Papers for Journals
Impact Factor: 5.164

2020
Reviewed Papers for Journals
Impact Factor: -

2020
Reviewed Papers for Journals
Impact Factor: -

2019
Reviewed Papers for Journals
Impact Factor: 3.021

2018
Reviewed Papers for Journals
Impact Factor: -

2018
Reviewed Papers for Journals
Impact Factor: 1.126

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Packed column water scrubbing with H2S and activated charcoal scrubber 2021

Status: Filed

Continuous stirring tank reactor with heat exchangers 2021

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