ENGR. MUHAMMAD MUBASHAR OMAR

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Address Department of Energy Systems Engineering, Faculty of Agricultural Engineering & Technology, University of Agriculture, Faisalabad, Pakistan. 38000

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Research Interest

Renewable energy, Thermochemical and biochemical conversion techniques for biofuel production, High temperature reactors, CFD analysis for fluid flow, Small Farm Machinery and Power (Design Development and optimizations), Precision Agriculture.

Experience

Post held	Where employed	Dates	
		▒▒Kwtr ▒▒▒▒▒▒▒▒Yt%	
Assistant Professor (TTS)	Department of Energy Systems Engineering, University of Agriculture Faisalabad PAK	23.09.2019	Currently
Assistant Professor (BPS-19)	Department of Energy Systems Engineering, Faculty of Agricultural Engineering & Technology PMAS Arid Agriculture University Rawalpindi PAK	17.9.2018	16.09.2019
Researcher	University of Minnesota USA Bioproduct Biosystems Engineering	1.01.2017	30.08.2017
Lecturer BPS-18	GC University Faisalabad, Pakistan Mechanical Engineering & Technology	15.09.2015	18.10.2016
Teaching Assistant	University of Agriculture, Faisalabad-Pakistan		

Projects

%

PI: Dr. Muhammad Mubashar Omar CO PI: Dr. Muhammad Umair

Design, Development of fixed bed continuous feeding cleaning updraft gasifier for power generation using Agricultural waste and other solid waste. Funded by: Higher Education Commission of Pakistan

Skills

Auto CAD, Solid Works, ANSYS, Origin.

Achievements

International Research Support Initiative Program (HEC)

HEC start up project

Honors & Awards

PhD Indigenous Scholarship

Publications (Impact Factor)

%

Technoeconomic analysis: The potential and opportunities of transforming Saudi Arabian scrap tires into synthetic fuel via vacuum pyrolysis. Sulaiman Al Yahya and **Muhammad Mubashar Omar***. Frontiers in Energy Research, Solar Energy. 2024. DOI: 10.3389/fenrg.2024.1415901.

Empirical and Numerical based Predictive Analysis of Single Axis PV System under Semi-Arid Climate Conditions of Pakistan. Farwa Saeed, Abdul Ghafoor, Muhammad Imtiaz Hussain, Kamran Ikram, **Muhammad Mubashar Omar*** and Gwi Hyun Lee5*. Frontiers in Energy Research, Solar Energy. 2024. DOI:10.3389/fenrg.2023.1293615.

Graphene synthesis from organic substrate: A Review. 2023. Faisal Mahmood, Shazma Ashraf, Muhammad Shahzad, Bin Li*, Furqan Asghar, Waseem Amjad, **Muhammad Mubashar Omar*.** Industrial and Engineering Chemistry Research. https://doi.org/10.1021/acs.iecr.3c01715

Designing and performance evaluation of continuously stirring anaerobic batch reactor for biomethane production from biowaste. Muhammad Nauman, Muhammad Tayyab, Muhammad Faheem, Kamran Ikram, Muhammad Waqar Akram, Muhammad Asif, **Muhammad Mubashar Omar***. Biomass conversion and Biorefinery, 2023. https://doi.org/10.1007/s13399-023-04203-y

Computer vision-based prototype robotic picking cum grading system for fruits. Meer Hannan Dairath, M. Waqar Akram, M. Ahmad Mehmood, H. Umair Sarwar, M. Zuhaib Akram, **M. Mubashar Omar**, M. Faheem. Smart Agricultural Technology, 2023. https://doi.org/10.1016/j.atech.2023.100210

Socioeconomic and Environmental Impact Assessment of Different Power-Sourced Drip Irrigation Systems in Punjab, Pakistan. Iftikhar ul Hassan, Muhammad Nadeem, Muhammad Yamin, Sikandar Ali, **Muhammad Mubashar Omar**, Shaheer Ahmad, Mamoona Zulfiqar and Tallat Mahmood. AgriEngineering 2023, 5, 236-256. https://doi.org/10.3390/agriengineering5010016.

Perspectives into intensification for aviation oil production from microwave pyrolysis of organic wastes. Yaning Zhang, Sichen Fan, Tao Liu, **Muhammad Mubashar Omar**, Bingxi Li. Chemical Engineering & Processing: Process Intensification 176 (2022) 108939. https://doi.org/10.1016/j.cep.2022.108939

Co-gasification of different biomass feedstock in a pilot-scale (24KWe) downdraft gasifier: An experimental approach. Muhammad Awais, **Muhammad Mubashar Omar**, Anjum Munir, Wei li, Muhamad Ajmal, Sajjad Husain, Syed Amjad Ahmad, Amjad Ali. Energy 238 (2022) 121821. https://doi.org/10.1016/j.energy.2021.121821.

Techno-Economic Analysis of Fast pyrolysis of Date-Palm Wastes for Adoption in Saudi Arabia. Sulaiman Al Yahya, Tahir Iqbal, **Muhammad Mubashar Omar**, Munir Ahmad. Energies 2021, 14, 6048. https://doi.org/10.3390/en14196048.

Downdraft gasifier structure and process improvement for high quality and quantity producer gas production. **Muhammad Mubashar Omar***, Anjum Munir, Manzoor Ahmad, Asif Tanveer. http://dx.doi.org/10.1016/j.joei.2017.07.005

Experimental investigation of downdraft biomass gasifier fed by sugarcane bagasse and coconut shells. Muhammad Awais, Wei Li, Anjum Munir, **Muhammad Mubashar Omar**, Muhammad Ajmal. Biomass Conversion and Biorefinery. https://doi.org/10.1007/s13399-020-00690-5. March 2020.

Enhanced Biogas Production in the Duckweed Anaerobic Digestion Process. Hongyan Ren, Nan Jiang, Tao Wang, **M. Mubashar Omar**, Wenquan Ruan and Abdul Ghafoor. JOURNAL OF ENERGY RESOURCES TECHNOLOGY. APRIL 2018, Vol. 140 / 041805-1.

Bio-oil from fast pyrolysis of lignin: Effects of process and upgrading parameters. Fan L, Zhang Y, Liu S, Zhou N, Chen P, Cheng Y, Addy M, Lu Q, **Omar M.M**, Liu Y, Wang Y, Dai L, Anderson E, Peng P, Lei H, Ruan R. DOI: 10.1016/j.biortech.2017.05.129.

Oil production from microwave-assisted pyrolysis of a low rank American brown coal. Yaning Zhang, Shiyu Liu, Liangliang Fan, Nan Zhou, **Muhammad Mubashar Omar**, Peng Peng, Erik Anderson, Min Addy, Yanling Cheng, Yuhuan Liu, Bingxi Li, John Snyder, Paul Chen, Roger Ruan. doi.org/10.1016/j.enconman.2018.01.004.

In-situ and ex-situ catalytic upgrading of vapors from microwave-assisted pyrolysis of lignin. Liangliang Fan, Paul Chen, Nan Zhou, Shiyu Liu, Yaning Zhang, Yuhuan Liu, Yunpu Wang, **Muhammad Mubashar Omar**, Peng Peng, Min Addy, Yanling Cheng, Roger Ruan. https://doi.org/10.1016/j.biortech.2017.09.200.

Breakthrough Technologies for the Biorefining of Organic Solid and Liquid Wastes. Paul Chen,Erik Anderson,Min Addy, Renchuan Zhang, Yanling Cheng, PengPeng, Yiwei Ma, Liangliang Fan, Yaning Zhang, Qian Lu, Shiyu Liu, Nan Zhou, Xiangyuan Deng,Wenguang Zhou, **Muhammad Omar**, Richard Griffith, Faryal Kabir, HanwuLei,Roger Ruan. https://doi.org/10.1016/j.eng.2018.07.004.

Journals Reviewer (Elsevier)

Journal of energy resource technology ASME

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Chemical Engineering and Processing

Renewable Energy

International Journal of Hydrogen Energy