



BUITEMS

Quality & Excellence in Education

ISO 9001-2008 certified

www.buitms.edu.pk

UAN: 081- 111-717-111



Name	Muhammad Najam Khan Malghani	
Designation	Professor	
Department	Chemical Engineering	
Research Profile	ORCID ID: https://orcid.org/0000-0002-3159-2390	
	Research Gate ID: researchgate.net/profile/Muhammad-Najam-Khan	
	Google Scholar Profile ID: Muhammad Najam Khan - Google Scholar	
E-mail address	Official	Najam.khan@buitms.edu.pk
	Personal	najammalgahni@gmail.com
Telephone Number	Office Extension	081-111-717-111 (740)
	Mobile	+923467145789

Qualification

Year	Degree/Certificate	Name of the Institute/ University	Field of study
2023	Post Doctorate	KTH Royal Institute of Technology, Stockholm Sweden	Nanotechnology
2014	PhD	Asian Institute of Technology (AIT), Bangkok Thailand	Nanotechnology
2008	MS/ Mphil	University of Adelaide, Australia	Chemical Engineering
2005	Graduation	Dawood College of Engineering and Technology Karachi, Pakistan	Chemical Engineering

Publications in HEC Recognized journals

S. No	Title of Paper	Name of Journal	National/ International	Publication date
1	Synthesis of Cu-doped ZnO for bulk heterojunction hybrid solar cells	Chemical Papers 76 (8), 4743-4748	International	2023
2	Synthesis of Ni-Ag-ZnO solid solution nanoparticles for photoreduction and antimicrobial applications	RSC advances 12 (13), 7661-7670	International	2022
3	Drying characteristics and impacts on quality of marine Chlorella sp. biomass and extracts for fuel applications	Journal of Environmental Chemical Engineering 9 (6), 106386	International	2021
4	Potential application of Allium Cepa seeds as a novel biosorbent for	Chemosphere 279, 130545	International	2021

	efficient biosorption of heavy metals ions from aqueous solution			
5	Ultrasound assisted adsorption of reactive dye-145 by biochars from marine <i>Chlorella</i> sp. extracted solid waste pyrolyzed at various temperatures	Journal of Environmental Chemical Engineering 8 (6), 104403	International	2020
6	Opto-Electrical Investigation of Zn Metal-Doped Cds and Their Application in Soft Lithographic Technique	Sains Malaysiana 49(8), 1875-1890	International	2020
7	Synthesis of zinc stannate nanoparticles by sol-gel method for photocatalysis of commercial dyes	Results in Chemistry 2, 100023	International	2020
8	Valorization of sugarcane bagasse waste for fly ash production and application as an adsorbent	Journal of Applied and Emerging Sciences 10 (2), pp 93-97	International	2020
9	Structural, optical and photovoltaic properties of P3HT and metal doped TiO ₂ quantum dots based bulk heterojunction layers	Optical Materials 91, 376-385	International	2019
10	Synthesis and antimicrobial activity of zinc oxide nanoparticles against foodborne pathogens <i>Salmonella typhimurium</i> and <i>Staphylococcus aureus</i>	Biocatalysis and agricultural biotechnology 17, 36-42	International	2019
11	Bioenergy production from waste mango seed shell by thermo-chemical conversion and its importance for mango fruit processing industry	Journal of Applied and Emerging Sciences 9 (1), pp 48-52	National	2019
12	INFLUENCE OF SILICON SOURCES & CONTROLLED RELEASE FERTILIZER ON THE GROWTH OF WHEAT CULTIVARS OF BALOCHISTAN UNDER SALT STRESS	Pakistan Journal of Botany 51 (5), 1561-1567	International	2019
13	Development of laboratory scale microbial fuel cell for electricity generation from cow dung manure using microbes	Journal of Applied and Emerging Sciences 8 (2), pp102-107	National	2019
14	Impact of wall properties on the peristaltic flow of Cu-water nano fluid in a non-uniform inclined tube	International Journal of Heat and Mass Transfer 125, 772-779	International	2018
15	Parametric effect of distillery effluent as substrate in microbial fuel cell for power generation	Journal of Applied and Emerging	National	2018

		Sciences 8 (1), pp58-64		
16	Synthesis of silica nanoparticles and their effect on priming of wheat (<i>Triticum aestivum</i> L.) under salinity stress	Biol. Forum 9, 150-157	International	2017
17	Pyrolysis Heating Performance of Oil Palm Shell Waste Biomass with Carbon Surfaces	JAES 7 (1), 70-75	National	2017
18	Perspectives and applications of nanotechnology in water treatment	Environmental chemistry letters 14, 1-14	International	2016
19	Photocatalytic inactivation of <i>Escherichia coli</i> using zinc stannate nanostructures under visible light	Advanced Materials Research 1131, 203-209	International	2016
20	Production of biodiesel through catalytic transesterification of jatropha oil	Journal of Applied and Emerging Sciences 6 (1), pp9-13	National	2016
21	Potential Effect of Biomass Addition with Pakistani Low Rank Coal on Emission of SO ₂	Journal of Applied and Emerging Sciences 6 (1), pp6-8	National	2016
22	Comparison of photocatalytic activity of zinc stannate particles and zinc stannate/zinc oxide composites for the removal of phenol from water, and a study on the effect of pH	Materials Science in Semiconductor Processing 36, 124-133	International	2015
23	Visible light photocatalysis of mixed phase zinc stannate/zinc oxide nanostructures precipitated at room temperature in aqueous media	Ceramics International 40 (6), 8743-8752	International	2014
24	Engineered Silica Nanoparticles and silica nanoparticles containing Controlled Release Fertilizer for drought and saline areas.	IOP: materials science and engineering 414, 012029	International	2018
25	In-plane shear strength analysis of Basalt Fiber-Reinforced Epoxy Laminates with Biowaste Catalyst Free Carbon	IOP: Materials Science and Engineering 414, 012031	International	2018
26	Investigation of raw materials for cement industry of Upper Hunza, Gilgit-Baltistan, Pakistan.	IOP: Materials Science and Engineering 414), 012012	International	2018

27	Extraction of oil from algae for biodiesel production, from Quetta, Pakistan	IOP: Materials Science and Engineering 414, 012022	International	2018
28	Features of convective heat transfer on MHD peristaltic movement of Williamson fluid with the presence of Joule heating	IOP: Materials Science and Engineering 414 (1), 012010	International	2018
29	Effective use of Enzyme Zymase for Enhancement of Ethanol Production Couple with Parametric Effect	IOP: Materials Science and Engineering 414 ,012039	International	2018
30	In-plane shear strength analysis of Basalt Fiber-Reinforced Epoxy Laminates with Biowaste Catalyst Free Carbon	IOP: Materials Science and Engineering 414 (1), 012031	International	2018

Paper Presented

S. No	Title of Paper	Name of Conference	National/ International	Date
1	Visible light photocatalytic inactivation of Escherichia coli using zinc stannate nanostructures synthesized at room temperature in aqueous media	Nano Thailand 2014 Bangkok	International	26 – 28 November, 2014
2	Nanotechnology Path for Sustainable Future and Better Living (Keynote Speaker)	ICMTSET 2017, Karachi	International	27-28, April 2017
3	Hydrothermal Synthesis of Zinc Stannate (ZTO) nanoparticles at lower temperature Effect of Mineralizer concentration on the size of particles	6 th (BICET) 2016 Brunei	International	4-Nov-2016 to 16-Nov-2016
4	Zinc stannate nanoparticles synthesized at room temperature: Effect of annealing on size, morphology and photocatalytic activity	Nano Thailand 2016 Khao Yai	International	27 – 29 November, 2016
5	Hydrothermal Synthesis of Zinc Stannate (ZTO) Nanoparticles at Lower Temperature, Effect of Precursor Concentration on the Size of Particles	ICMT 23 Slovenia	International	27-30 September 2015
6	Photocatalytic Degradation of Dyes using Hydrothermal Synthesized Zinc Tin Oxide (ZTO) nanoparticles at Room Temperature, Effect of	Nano Thailand 2018 Bangkok	International	12-14 December 2018

	Concentration of Dyes on photocatalytic Activity			
7	Nano-materials as Efficient Catalyst for various Application (Keynote Speaker)	CEMP 2017 NUST Islamabad	International	13-14, November,2017
8	Phenol Photodegradation by composite ZTO/ZnO nanostructures (Keynote Speaker)	SPI-2018 UET Peshawar	International	24-25, October 2018
9	Hydrothermal Synthesis of Zinc Stannate (ZTO) Nanoparticles at Lower Temperature, Effect of Mineralizer Concentration on the Size of Particles	ICMSN 2018 UOB Quetta	International	03-04, September 2018
10	Nanostructure for daily life usage	ICGSCS 2018 DUET Karachi	International	03-04, March2018
11	Municipal wastewater treatment phytoremediation with chlorella vulgaris: effects of pH regulation	SIMEC 2017 NED Karachi	International	25-25 March 2017
12	Nanomaterials as Efficient Catalyst for various Application	EESD 2017 COMSATS Lahore	International	21-23, February 2018
13	Annealing studies of Zinc Tin Oxide nanoparticles hydrothermally synthesized at lower temperature (Keynote Speaker)	ICCE2018 MUET Karachi	International	22-23, January 2018

Books Authored/ Edited

S. No	Name of book	Publisher	ISBN
1	Pollutants in Buildings, Water and Living Organisms	Springer International Publishing	2213-7122

Work Experience

S. No	From (year)	To (year)	Name of the Institution/ Organization	Position held
1	2021	To Date	BUIEMS	Professor
2	2014	2021	BUIEMS	Associate Professor
3	2009	2014	BUIEMS	Assistant Professor
4	2008	2009	BUIEMS	Lecturer
	2006	2008	BUIEMS	Research Associate

Area of specialization Nanotechnology

Research Interest Wastewater treatment

Future Research Plans Microplastic degradation using Prussian Blue Analogues

HEC Approved supervisor Yes

If Yes, provide HEC URL	https://www.hec.gov.pk/english/scholarshipsgrants/ASA/Pages/APS-EPORTAL.aspx
Research grants/ Projects	
Additional Information	