

PERSONAL INFORMATION

Waqas Ahmad, Lecturer



 Institute of Advanced Materials, Bahauddin Zakariya University Multan. Pakistan

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Sex Male | Date of birth 20/08/1988 | Nationality Pakistan.

WORK EXPERIENCE

Jan2021 to date

Lecturer

Institute of Advanced Materials, Bahauddin Zakariya University Multan.

<https://profiles.bzu.edu.pk/waqasahmad>

Main activities and responsibilities: As a full time faculty member my primary responsibilities include delivering lectures and facilitate learning for undergraduate students of Materials Science and Engineering along with design of new courses, selection of textbooks and reference materials, assessments and assignments. I am also acting as the director students affairs under which I provide academic support and guidance to students on course selection, help students plan their academic path, and provide advice on career options and graduate studies. Being members of different administrative committees, I also collaborate with colleagues, contribute to program reviews, and assist in the overall functioning of the department and faculty

Oct -2017 to Aug-2019

Lecturer

University of Sargodha. Sargodha, Punjab Pakistan

Main activities and responsibilities: At University College of Engineering & Technology, I have taught courses of Manufacturing Engineering, Introduction to Materials Engineering, Structural Materials and their applications at Undergraduate level of Mechanical , Materials and Civil Engineering along with their lab work for these courses

Aug- 2015 to Sept- 2017

Research Assistant

University of the Punjab, Lahore Punjab. Pakistan

Main activities and responsibilities: I worked on the development of graphene oxide layer on copper substrate for better electrochemical properties with development of solar cells of better efficiencies. I have successfully handled the development of Nano-coating and its characterization by using X-rays diffraction (XRD), Atomic force Microscopy (AFM), Raman Spectroscopy and Scanning Electron Microscope with EDX detector

Apr- 2012 to Feb -2013

Visiting Lecturer/Demonstrator

Bahauddin Zakariya University, Multan Punjab. Pakistan

Main activities and responsibilities: I have successfully handled the courses Met 208 – Mechanical Properties of Engineering Materials [Spring 2012], Met 203 – Fuel and Furnaces[Spring 2012], Met 104 – Mineral Processing and Techniques [Spring 2012], Met 304 Polymeric and Composite Materials [Fall 2012], Met 108 Ceramics and Refractory Materials at Undergraduate level of Materials Engineering along with their laboratory work.

Aug- 2010 to Sept- 2010

Engineer (Internee).

Fibre Craft Industries Canal Bank HarbansPura, Lahore 54580 Punjab Pakistan

Main activities and responsibilities : I have auspiciously completed training of basic processes like Hand Lay-Up (Open Molded), Resin Transfer Molding (RTM Closed Molding), Spray-Up Process (Open Molding),RTM Lite (Vacuum Infusion Processing), Closed Cavity Bag Molding (CCBM) being conducted in industry involved in the manufacturing of different fiber products of fibers and Composite

Jul- 2010 to Aug- 2010

Engineer (Internee).

Pakistan Foundry Association, Lahore 54580 Punjab Pakistan

Main activities and responsibilities : This association provided me an opportunity to get training at partner industries/organization like Millat Tractors (pvt) limited, Millat industrial Equipment and Supra Steel in the field of Engineering and management

EDUCATION AND TRAINING

Mar- 2013 to Sep 2015

Masters in Science, Metallurgical and Materials Engineering

University of Engineering and Technology, Lahore 54580 Punjab Pakistan.

Principal subjects: Deformation and Fracture, Welding Engineering, Coating Techniques, Solidification Processes, Corrosion Engineering, Electrical and Magnetic Materials, Engineering of Ceramics and Composites.

Thesis Title: Effect of Filler rod composition on Micro structural, Mechanical and Electrochemical properties of TIG welded 2219 Aluminium Alloy

Dec- 2007 to Jan-2012

Bachelors of Science (Engineering) Metallurgy and Materials Engineering

University of the Punjab, Lahore 54580 Punjab Pakistan.

Principal subjects: Material Science, Physical Metallurgy, Engineering Ceramics and Glasses, Surface Engineering and Tribology, Metal Shaping Processes, Composites and Polymeric Materials, Corrosion Engineering, Welding and Joining Processes, Nuclear Engineering Materials

Thesis Title: LASER welding of dissimilar materials (Stainless steel L to Titanium Ti-6Al-4V)

ADDITIONAL INFORMATION

Publications

- Book Chapter: Plasmonic 2D Materials: Overview, Advancements, Future Prospects and Functional Application.
IntechOpen, 21st Century Nanostructured Materials. Physics, Chemistry, Classification and Emerging Applications in Industry, Biomedicine and Agriculture
<https://www.intechopen.com/chapters/79872>
- Phase Based Study of Solidified Structures Evolved During the TIG Welding of 2219-T87 Aluminium Alloy. Journal of Pakistan Institute of Chemical Engineers.
Journal of Pakistan Institute of Chemical Engineers. (JPICHE 43 (2)2015: 45-56)

Conference Paper

- Investigation of Corrosion resistance and mechanical characterization of TIG welded Aluminum alloy 2219.
(International Conference on Industrial Engineering and Operation Management Washington DC September 27-29th, 2018)

Projects

- Flash Annealing of Fe₅₀Mn₂₇Ni₁₃Cr₁₀ High Entropy Alloy
- Micro-structural and Electrochemical study of Ni₆₀Cr₁₈Mo₁₃Fe₇ Cu₂ alloy for pump impeller application in fertilizer industry
- Development and Characterization of graphene oxide protective coating by Chemical vapours deposition (CVD) and electrophoretic deposition (EPD) methods on Copper substrate.
- Electrochemical behaviour of stainless steel 304 having cladding layer of 316 L through TIG welding
- LASER welding of dissimilar materials (Stainless steel L to Titanium Ti-6Al-4V)

PERSONAL SKILLS

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Technical skills/ Competences

- Arc Melter and casting process in furnace.
- Hardness testing
- Universal testing Machine (responsible for conduction of experiments during undergraduate and graduate studies along with teaching/demonstration at Undergraduate).
- Metallographic techniques for preparation of samples for Microscopy
- Optical microscopy, Scanning Electron Microscopy with EBSD, Transmission Electron Microscopy and Atomic Force Microscopy
- Gammry Apparatus to evaluate the Electro-chemical behaviour of Materials.
- TEM-EDS.
- Spectroscopic and x-rays diffraction analysis
- Clean Room Techniques

Organisational / managerial skills

- Enthusiastic, and Energetic
- Ability to work under pressure both individually as well as a team obtained through conduction of research studies during my career

Digital competence

SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Basic user	Proficient user	Basic user

Digital competences - Self-assessment grid

Mother tongue(s)

- Urdu

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B1	B2	B2	B1
Punjabi	C1	B2	C1	C1	A2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

Memberships

- Pakistan Engineering Council (Since 2013)
Registration No. Metal/2976
- Blood Donor Society (2013-15)
University of Engineering and Technology Lahore, Punjab. Pakistan.
- ASME UET Chapter (2013-2014)
University of Engineering and Technology Lahore, Punjab. Pakistan

- International Conference on Industrial Engineering and Operation Management Washington DC September 27-29th, 2018
- International Conference on Advance Materials and Emerging Technologies. 28th, 29th November 2016
University of Engineering and Technology Lahore Pakistan
- One day, CPD. Ceramics-Structural and Advanced (Smart) Applications, Workshop. 24th May 2016
University of Engineering and Technology Lahore Pakistan
- 6th Symposium on Engineering Sciences. 24th, 25th February 2016.
Institute of Chemical Engineering, University of the Punjab Lahore. Pakistan
- 2nd International Conference on Engineering Sciences (ICES 2015), 2nd, 3rd December 2015
Institute of Chemical Engineering, University of the Punjab Lahore. Pakistan
- 3rd Symposium on Engineering Sciences. 3rd, 4th September 2010.
Institute of Chemical Engineering, University of the Punjab Lahore. Pakistan.

References

- Dr. Gul Hameed Awan
Position: Professor
Organization: University of Engineering and Technology, Lahore, Punjab, Pakistan.
Email: gulhameed1961@hotmail.com
- Prof. Dr. Waheed Qamar Khan
Position: Director
Organization: Institute of Advanced Materials, Bahauddin Zakariya University Multan, Punjab Pakistan
Email: waheedkhan@bzu.edu.pk