

## Curriculum Vitae



### • Personal Record

Name : **Dr. AQIL INAM**  
Father's Name : Inam ul Haq  
Designation : Assistant Professor of Metallurgy  
Department : Institute of Metallurgy and Materials Engineering,  
Quaid-e-Azam Campus, University of the Punjab,  
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### • Academic Record

Examination	Institution	Subject	Year of Passing	Division	Grade/CGPA
Matric /SSC	Govt. Model High School No. 1, Sargodha	Science	1988	First	A-One
F.Sc.	Govt. College University Lahore	Pre-Engineering	1991	First	A
B.Sc. (Engg.)	University of Engineering and Technology, Lahore	Metallurgical Engineering and Materials Science	1998	First	A
M.Sc. (Engg.)	University of the Punjab, Lahore	Metallurgy and Materials Science	2007	First	3.90
Ph.D. (Engg.)	University of Leeds, England.	Metallurgical Engineering	2013	N/A	N/A

### • Distinction

- Achieved 2nd prize in the "Science Mela" exhibition organized by BISE, Sargodha in 1987 at school level competition.
- Stood first in M.Sc. Metallurgy and Materials Engineering examination (session 2004-05) in the University of Punjab, Lahore.
- Won "Innovation Award" in Invention to Innovation Summit 2014 held at University of the Punjab, Lahore.
- Won two "Innovation Awards" in Invention to Innovation Summit 2015 held at University of the Punjab, Lahore.

- Won two "Technology Awards" in Invention to Innovation Summit 2016 held at University of the Punjab, Lahore.
  - Won "Technology Award" in Invention to Innovation Summit 2017 held at University of the Punjab, Lahore
  - Won "Innovation Award" of worth Rs. 50,000/- at Pakistan Auto Show 2018, 2-4 March at Lahore International Expo Centre organized by Pakistan Association of Automotive Parts & Accessories Manufacturers (PAAPAM)
  - Won "Technology Award" in Invention to Innovation Summit 2019 held at University of the Punjab, Lahore
  - Won "Innovation Award" of worth Rs. 75000/- at Pakistan Auto Show 2020, 21-23 February at Lahore International Expo Centre organized by Pakistan Association of Automotive Parts & Accessories Manufacturers (PAAPAM).
- **Professional Affiliations**
    - Professional Engineer, Pakistan Engineering Council (Metal/1322)
    - Associate Member, Pakistan Institute of Metallurgical Engineers (AM-1)
    - Member, Society of Corrosion Engineers Pakistan (SOCEP, M-76)
    - Member, The Institution of Engineers Pakistan (M-15740/LHR-4173)
    - Member, Pakistan Engineering Congress (M-4039)
    - Member, The American Ceramic Society, USA (ACerS, M-001190657)
    - Member, Association of Iron and Steel Technology (AIST), USA (M-174776)
    - Member, The Minerals, Metals and Materials Society, USA

- **Formal Training Courses**

Sr. No.	Name of Course Attended	Place	Type of training	Year		Certificate obtained
				From	To	
1.	“Corrosion Management in Industry”	Department of Chemistry, University of Engineering and Technology, Lahore	Theoretical	01-07-2002	12-07-2002	Yes
2.	“ Faculty Orientation Program”	HRDC, University of the Punjab, Lahore	Theoretical & Practical	July 2003		Yes
3.	“Corrosion Management and Integrity of Coating-cathodic Protection System (Level – I)”	I.C.E.T (Institute of Chemical Engineering and Technology), University of Punjab, Lahore	Theoretical & Practical	30-08-2004	03-09-2004	Yes
4.	“Corrosion Management and	I.C.E.T, University of Punjab, Lahore	Theoretical & Practical	04-09-2004	09-09-2004	Yes

	Integrity of Coating-cathodic Protection System (Level – II)”					
5.	“Plant Conditioning & Assets Optimization”	Avari Tower Hotel, Lahore	Theoretical & Practical	10-2004		Yes
6.	“Research & Development Needs in Pulp and Paper Industry”	I.C.E.T, University of Punjab, Lahore	Theoretical	20-09-2006		Yes
7.	“Safety Certificate Course”	IMR, University of Leeds, U.K.	Theoretical & Practical	26-02-2009		Yes
8.	“LabView course (Basic Level)”	School of Mechanical Engineering, University of Leeds, U.K.	Theoretical & Practical	15-12-2010		Yes
9.	“LabView course (Advance Level)”	School of Mechanical Engineering, University of Leeds, U.K.	Theoretical & Practical	12-01-2011		Yes
10.	“Advanced TEM Programme”	IMR, University of Leeds, U.K	Theoretical & Practical	04-08-2011	08-08-2011	

### • Employment Record

Sr. No.	NATURE OF EXPERIENCE	DESIGNATION	INSTITUTE	PERIOD	
				From	To
1.	Research & Development	Research Scholar	Institute of Chemical Engineering and Technology, University of the Punjab, Lahore.	06-12-2001	20-08-2002
2.	Teaching and Research & Development	Lecturer	Institute of Chemical Engineering and Technology, University of the Punjab, Lahore.	21-08-2002	31-12-2004
3.	Teaching and Research & Development	Lecturer	Department of Metallurgy and Materials Engineering, College of Engineering and Emerging Technologies, University of the Punjab, Lahore.	01-01-2005	13-01-2009
4.	Research & Development	Ph.D. scholar at University of Leeds, UK & Lecturer on study leave at University	Institute for Materials Research (IMR), University of Leeds, UK & Completed Ph.D. under supervision of Prof. David Edmonds and Prof. Rik	01-02-2009	26-04-2013

of the Punjab, Brydson in April 26, 2013.  
Lahore

5. Teaching and Research & Development Assistant Professor Department of Metallurgy and Materials Engineering, College of Engineering and Emerging Technologies, University of the Punjab, Lahore. 29-05-2013 To date

### • Teaching Experience

Taught following Subjects to the undergraduate and post graduate classes of Metallurgy & Materials Engineering and Electronics & Telecommunication Engineering:

- Physical Metallurgy
- Heat Treatment & Phase Transformations
- Iron Manufacturing Technology
- Steel Manufacturing Technology
- Non-ferrous Production Metallurgy
- Foundry Engineering
- Corrosion Engineering
- Mechanical Testing
- Materials Characterization
- Advance Materials

### • Research Experience

- Production of graphitic free-cutting steels
- Production of Ferrous and Non-ferrous Alloys
- Production of Advance High Strength Steels (AHSS), QP and QPT steels for producing automobile components.
- Foundry Engineering
- Heat Treatment & Phase Transformations
- Light Optical & Electron Microscopy
- Corrosion Engineering

### • Research Publications

#### Research Articles

Sr. No.	Title of Research Article	Published in
1.	“Porosity Formation and Remedial Measures in High Pressure Die Cast Aluminum Alloy Components”	“Proceedings of the Pakistan Academy of Sciences” (Journal of Pakistan Academy of Sciences). Vol. 39 No. 2, Published in December 2002

2. "Re-precipitation of Carbides in Austenitic Manganese Steel Parts in service" Proceedings of First International Conference on "Frontiers of Advanced Engineering Materials (FAEM- 04)" held on 20-22 September 2004 organized by PCSIR Labs Complex, Lahore. Published in 2005. ISBN 978-969-9457-00-5
3. "A Study of Electroplating of Nickel and Chromium on Mild Steel" "Journal of Faculty of Engineering and Technology", University of the Punjab, Lahore, Published in 2007
4. "Development of G-Al-Si 10 Mg (LM 09) Alloy and Effect of Artificial Aging Time on Its Hardness" Proceedings of Second International Conference on "Frontiers of Advanced Engineering Materials (FAEM-06)" held on 04-06 December 2006 organized by PCSIR Labs Complex, Lahore. 2008  
ISBN 978-969-9457-01-2
5. "Effect of Silicon Content on the Hardness of Artificially Aged LM25 Alloy" Proceedings of Third International Conference on "Frontiers of Advanced Engineering Materials (FAEM-08)" held on December 15-17, 2008 organized by PCSIR Labs Complex, Lahore. 2009  
ISBN 978-969-9457-02-9
6. "Heterogeneous Nucleation of Graphite in carbon steel" "Proceedings of 15<sup>th</sup> European Microscopy Congress", held in Manchester, U.K. on September 16-21, 2012. ISBN 978-0-9502463-5-2
7. "Machinability of Graphitised Carbon Steel" Ph.D. Thesis, University of Leeds, 2013.
8. "Corrosion Inhibition of 316L Stainless Steel in Plain Tap Water" "International Journal of Chemistry and Material Science", Vol. 2(2), March, 2014
9. "Effect of Post Heat-treatment on Hardness and Case Depth of 17NiCrMo6-4 Gear Steel after Liquid Carburizing" "Journal of Pakistan Institute of Chemical Engineers", JPICChE Vol. 42 (2) 2014: 87-92.
10. "Maleated High Oleic Sunflower Oil-Treated Cellulose Fiber-Based Styrene Butadiene Rubber Composites" "Polymer Composites", 2014.  
IF 2.3
11. "Effect of Starting Microstructure on Material Removal Rate (MRR) of AISI 1045 Steel in (Die-Sinking) Electric Discharge Machining" "Journal of Pakistan Institute of Chemical Engineers", JPICChE Vol. 43 (2) 2015
12. "Effect of starting microstructure upon the nucleation sites and distribution of graphite particles during a graphitising anneal of an experimental medium-carbon machining steel" "Materials Characterization" Vol. 106, pp. 86-92, May, 2015.  
IF 3.5
13. "Graphitisation: A Potential New Route to Free-machining Steels" Proceedings of "HSLA Steels 2015 and Microalloying 2015 and OES 2015 Conference" held in Zhejiang Hotel, Hangzhou, China on November 11-13, 2015 organized by The Chinese Society for Metals and Chinese

- Academy of Engineering. Online on 6 NOV 2015, Wiley Online Library.
14. "Carburising of Low-Carbon Steel Using Carbon Black Nanoparticles" "Arabian Journal for Science and Engineering" June, 2016  
IF 1.7
  15. "High-Resolution Metallography of a Coarse Microstructure: Graphite Formation in the Solid-State in Steel" "Published in the ASTM International Journal of Materials Performance and Characterization" Vol. 5, pp. 780-795, 2016.
  16. "Machinability of an Experimental Graphitised Carbon Steel" Online journal "Materials Science Forum" Vol. 879, pp. 477-482, 2017
  17. "Effect of Surface Profile of Mild Steel Substrate upon Adhesion Strength of WC-11%Co Flame Spray Coating" "Journal of Faculty of Engineering and Technology", University of the Punjab, Lahore, Vol. 24 No.2, 2017
  18. "A high-resolution study of graphite nodule formation in experimental Medium carbon machining steel" "Materials Characterization" Vol. 131, pp. 508-516, July, 2017  
IF 3.5
  19. "Quenching and Partitioning of AISI 4340 Steel" "Journal of Faculty of Engineering and Technology", University of the Punjab, Lahore, Vol. 24 No.2, 2017
  20. "Graphene Oxide Coatings Deposited on Steel Substrate Using Electrophoretic Deposition and Electrochemical Evaluation of Coatings in Saline Media" "Key Engineering Materials" 778, pp.111-117, 2018
  21. "Investigation on microstructural, mechanical, and electrochemical properties of water, brine quenched and tempered low carbon steel" "Materials Research Express" Vol. 6 (2019)  
IF 1.9
  22. "Development of high strength austempered ductile iron(ADI) from conventional pig iron" "Materials Research Express" Vol. 6 (2019)  
IF 1.9
  23. "Effect of morphology of manganese oxide on the capacitive behavior of electrodes" "Materials Research Express" Vol. 6 (2019)  
IF 1.9
  24. "Mechanical properties of graphene oxide coated-glass fiber reinforced unsaturated polyester composites" "Materials Research Express" Vol. 6 (2019)  
IF 1.9
  25. "Effect of tempering time on microstructure, mechanical, and electrochemical properties of quenched-partitioned-tempered Advanced High Strength Steel (AHSS)" "Materials Research Express" (2019)  
IF 1.9
  26. " $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> photo catalyst" "Journal of Nanoparticle Research" (2019)  
IF 2.1

- immobilized on a porous Ni substrate for recyclable solar photo catalysis”
27. “Effect of voltage and spray-off distance of electric-arc spray technique on surface properties of nickel-chrome (Ni-Cr) coating developed on 304L stainless steel”  
“Materials Research Express” (2019)  
IF 1.9
  28. “Mechanical and corrosion properties of medium carbon low alloy steel after cyclic quenching and tempering heat-treatments”  
“Materials Research Express” (2019)  
IF 1.9
  29. “Optimized Corrosion Performance of AISI 1345 Steel in Hydrochloric Acid Through Thermo-Mechanical Cyclic Annealing Processes”  
“Crystals” Vol. 10 (2020)  
IF 2.4
  30. “Effect of hot rolling on microstructures and mechanical properties of Ni base superalloy”  
“Vacuum” Vol. 174 (2020)  
IF 2.9
  31. “Raman spectroscopy study of the crystallinity of graphite formed in an experimental free-machining steel”  
“Materials Characterization” (2020)  
IF 3.5
  32. “Synthesis and characterization of titanium dioxide nanoparticles by chemical and green methods and their antifungal activities against wheat rust”  
“Chemosphere” Vol. 258 (2020)  
IF 5.1
  33. “Thermally Reduced Graphene Oxide-Reinforced Acrylonitrile Butadiene Styrene Composites Developed by Combined Solution and Melt Mixing Method”  
“Arabian Journal for Science and Engineering” (2020)  
IF 1.7
  34. “Microstructural, Mechanical, and Electrochemical Properties of Quenched and Partitioned 3 wt% Mn Steel”  
“Arabian Journal for Science and Engineering” (2020)  
IF 1.7
  35. “La<sub>0.75</sub>Sr<sub>0.25</sub>Cr<sub>0.5</sub>Mn<sub>0.5</sub>O<sub>3</sub> perovskite developed for supercapacitor applications”  
Journal of Energy Storage Vol. 32 (2020)  
IF 3.7

36. "Corrosion study of zinc rich epoxy ester paints for cold galvanizing of mild steel" Surface Review and Letters (2021) IF 0.77

### Books/Reports

Sr. No.	Title	Published by
1.	"A Manual of Corrosion Testing and Monitoring Using Advanced Electrochemical Techniques"	Corrosion Control Research Cell (ICET), Engineering Research Centre, Faculty of Engineering & Technology, University of the Punjab, Lahore. 2007
2.	"Recommended Standard Operating procedures For SSGC Future Gas Pipeline Projects"	Corrosion Control Research Cell (ICET), Engineering Research Centre, Faculty of Engineering & Technology, University of the Punjab, Lahore. 2007
3.	Final Technical Report of the Research Project "Disbondment of 3L Epoxy/PE Coating & Integrity of Gas Transmission Pipeline" (PSF/ILG/002/03)	Corrosion Control Research Cell (ICET), Engineering Research Centre, Faculty of Engineering & Technology, University of the Punjab, Lahore. 2008

### Paper Presented in Foreign Conferences

Sr. No.	Paper Presented	Conference
1.	"Heterogeneous Nucleation of Graphite in carbon steel"	"15 <sup>th</sup> European Microscopy Congress", held in Manchester, U.K. on September 16-21, 2012, organized by the Royal Microscopical Society, UK.
2.	"Machinability of an Experimental Graphitised carbon steel"	Thermec'2013 International Conference on Processing & Manufacturing of Advanced Materials (Processing, Fabrication, Properties, Applications) held in Rio Hotel, Las Vegas, USA on December 2-6, 2013.
3.	"Heterogeneous Nucleation of Graphite Nodules Formed in Medium Carbon Steel After Graphitising Anneal"	"Materials Science and Technology 2014 Conference (MS&T14)", held in Pittsburgh, PA, USA on October 12-16, 2014, jointly organized by American societies; AIST, ASM, TMS and ACerS.
4.	"Growth Morphology of Graphite Particles formed from Staring Microstructures, Ferrite-pearlite, Bainite and Martensite after Graphitising Anneal of Medium Carbon Steel"	"Materials Science and Technology 2015 Conference (MS&T15)", held in Greater Columbus Convention Center, Columbus, Ohio, USA on October 4-8, 2015, jointly organized by American societies; AIST, ASM, TMS and ACerS.
5.	"Corrosion Study of Quenched and Partitioned AISI 4340 Steel"	"Materials Science and Technology 2015 Conference (MS&T15)", held in Greater Columbus Convention Center, Columbus, Ohio, USA on October 4-8, 2015, jointly organized by American societies; AIST, ASM, TMS and ACerS.
6.	"Graphitisation: A Potential New Route to Free-machining Steels"	"HSLA Steels 2015 and Microalloying 2015 and OES 2015 Conference" held in Zhejiang Hotel, Hangzhou, China on November 11-13, 2015 organized by The Chinese Society for Metals and Chinese Academy of Engineering.



7. "Machinability of an Experimental Graphitised Carbon Steel" THERMEC' 2016, International Conference on Processing & Manufacturing of Advanced Materials, Processing, Fabrication, Properties, Applications, Graz, Austria, May 29- June 03, 2016
8. "Effect of Starting Microstructure on the Graphite Dispersion Size, Formed after Graphitising Anneal of High Si and Al Medium Carbon Steel" Materials Science & Technology Conference (MS&T 16), held in the Salt Palace Convention Center in Salt Lake City, Utah, USA on October 23-27, 2016. Jointly organized by American societies; AIST, ASM, TMS and ACerS.
9. "Characterization of TiC, TiN, TiAlN, TiO and TiCN PVD Nano Coatings on AISI 420 J1 Steel" Materials Science & Technology Conference (MS&T 16), held in the Salt Palace Convention Center in Salt Lake City, Utah, USA on October 23-27, 2016. Jointly organized by American societies; AIST, ASM, TMS and ACerS.
10. "Effect of Surface Profile of Mild Steel Substrate upon the Adhesion Strength of WC- 11%Co Flame Spray Coating" Materials Science & Technology Conference (MS&T 16), held in the Salt Palace Convention Center in Salt Lake City, Utah, USA on October 23-27, 2016. Jointly organized by American societies; AIST, ASM, TMS and ACerS.

- **Industrial Liaison**

- TATA Steel, Rotherham, Sheffield, UK
- Chenab Engineering Works & Foundries PVT Ltd. Faisalabad, Pakistan
- New Shalimar Steel Pvt. Ltd, Lahore, Pakistan
- Supras Steel, Gujranwala, Pakistan
- Universal Pistons, Lahore, Pakistan
- Hero Electric, Lahore, Pakistan
- Hero Electrical Wiring Accessories, Sargodha, Pakistan
- Prime Wire and Cable, Sargodha, Pakistan
- Heavy Industries of Taxila (HIT), Taxila, Pakistan
- Batala Steel Pvt. Lahore, Pakistan
- Afaq Steel Pvt. Lahore, Pakistan
- Quenchage Surgical, Sialkot, Pakistan

- **Research Liaison with Foreign Faculty**

**Professor (Emeritus) David Edmonds (my Ph.D. Supervisor)**

- Ex Director IMR, University of Leeds
- University of Oxford
- University Cambridge

**Email:** D.V.Edmonds@leeds.ac.uk



**Professor Rik Brydson (my Ph.D. Co-Supervisor)**

- Director LEMAS, & Head Nanoengineering and Nanotechnology Courses, University of Leeds
- Founder of SuperSTEM Project ([www.superstem.org](http://www.superstem.org))
- Member Executive committee Royal Microscopy Society, UK
- Member Management Board European Microscopy Society

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