

AKBAR NIAZ

RESEARCH INTERESTS

High Velocity Oxyfuel Coatings Characterization, Physical features modulation by Impedance Spectroscopy, Reaction Kinetic study by Scanning Electrochemical Microscopy, Coating Sensitization study by Electrochemical Potentiokinetic Reactivation, Powder Atomization

EDUCATION

The University of Nottingham, Nottingham UK

Doctor of Philosophy in Mechanical Engineering

April 2009 to April 2013

Mechanical Material and Manufacturing Department,
University of Nottingham, NG7 2RD Nottingham, UK

eaxanb@nottingham.ac.uk

Thesis: *Complementary Use of Electrochemical Testing Techniques to Study Corrosion Processes of HVOF Inconel 625, CoNiCrAlY and WCCoCr Coatings*

The University of Manchester, Manchester UK

Master in Corrosion Control Engineering

September 2001 to September 2003

Thesis: *Corrosion Mechanism Study of Laser Melted Al-2024 and Al-2014 Alloys*

University of the Punjab, Lahore PAK

Bachelor in Metallurgy and Material Sciences and Engineering

April 1996 to April 2000

Thesis: *Tungsten Inert Gas, Metal Inert Gas (TIG & MIG) Welding and Non-Destructive Testing (NDT) of Mild Steel*

Swedish Collage Gujarat PAK

Diploma of Associate Engineer in Welding and Sheet Metal Technology

April 1992 to 1995

EXPERIENCE

Ghulam Ishaq Khan Institute of Engineering and Technology (Pakistan)

Research Associate/Lecturer, December 2006 to Feb 2009

Faculty of Material Sciences and Engineering,
Ghulam Ishaq Khan Institute of Engineering and technology
Topi, Swabi. Khabar Pakhtoon Khaw 23640 Pakistan,

butt111us@yahoo.com

- Responsible for teaching following courses at undergraduate level;
 - Corrosion and protection (MM451)
 - Powder Metallurgy (MM420)
 - Joining of Materials (MM324)
 - Deformation and Fracture (MM322)

- Involved in undergraduate research project:
 - Pitting tendency of pipe material used in Oil and gas industry
 - Corrosion Testing of shape memory alloys
 - Micro-electrodes testing in different neuron-transmitters

University of the Punjab (Pakistan)

Research Scholar, May 2006 to December 2006

- Involved in ongoing projects and undergrad research;
 - Disbondment of 3 layer polyethylene coating on gas transmission pipe lines
 - Effect of welding heat on corrosion rate

Industrial Work

- Logistic Engineer for Joseph Gleaves, Manchester (UK), 2004-06
- Multi-skilled Engineer for Government Contractors, Karak (Pak), 2000-01
- Shift Engineer at Ace Indigo, Lahore (Pak), 1999-00
- Welding/NDT inspector for JIACO, Lahore (Pak), 1995-96

SHORT COURSES

Personal skills development

- Intensive Learning Teaching Training Course
 - Foundation of Teaching in higher education
 - Lecturing for Learning
 - Small Group Teaching
 - Video Presentation
 - Assessment and Feedback
 - Teaching a Diverse Audience
- Personal skill development course on
 - Communication skills
 - Confidence building
 - Body language
 - Effective power point use
- ISO introductory course
- Chub fire warden

Technical skills development

- Lab demonstration
- Fundamental of Corrosion and Cathodic Protection
- Cathodic protection system for underground pipe lines
 - Radiographic of welding joints

SCHOLARSHIPS

- University of Nottingham Developing Solution Scholarship
- International merit Scholarship of Islamic Development Bank

PROFESSIONAL MEMBERSHIPS

- East midland material society
- Society of Chemical Industry
- Society of Corrosion Engineers
- Pakistan Engineering council

PUBLICATIONS

1. L. Johnson, **A. Niaz**, A. Boatwright, K.T. Voisey, and D.A. Walsh, *Scanning electrochemical microscopy at thermal sprayed anti-corrosion coatings: Effect of thermal spraying on heterogeneous electron transfer kinetics. J. Electroanal. Chem.*, 2011. 657(1-2): p. 46-53.
2. Bakare, M.S., **Butt, A.N.**, Voisey, K.T and McCartney,, D.G, 2010., *Microstructural Modifications and Corrosion Behaviour of HVOF sprayed Coatings Using Laser Surface Melting-Inconel 625 and FeCrAlY. In Proceedings of Materials Science and Technology (MS&T) 2010 pp. 296-306.*
3. Liu, Z., P. H. Chong, **A.N. Butt**, P. Skeldon and G.E. Thompson., *Corrosion mechanism of laser-melted AA2014 and AA2024 alloys. Applied Surface Science*, 2005. 247 (1-4) p. 294-299.
4. Virk, M.A., I.H. Khan, K.M. Deen, M. Ahmad and **A.N. Butt.**, *Corrosion failure analysis of spent caustic drainage line pipe. Engineering Failure Analysis*, 2010. 17(1): p. 128-134.