Mudassir Farooq

Email: engr.mudassirfarooq@gmail.com

Profile: A bright and energetic team player having good academic and professional background seeking to join a dynamic research environment to pursue an active career.

Education:

Master of Science in Materials Science & Engineering

King Fahd University of Petroleum & Minerals, Saudi Arabia Jan. 2015 – June 2017

- Thesis: **Effect of microstructure and densification of FeCrMo based nano-crystalline alloy on the corrosion performance in chloride environment**.
- CGPA: **3.71/4.0**

Bachelor of Engineering in Metallurgical Engineering

NED University of Engineering & Technology, Pakistan Jan. 2009 – Dec. 2012

- Final Year Project: **Reasons of excessive industrial corrosion rate and its remedies on steel structures located near coastal area of Karachi.** (Proposed and facilitated by Tuwairqi Steel Mills Limited, Port Qasim, Karachi.)
- Percentage: **81% (1218/1500)**

Research Experience

Master's Research in Materials Science & Engineering

King Fahd University of Petroleum & Minerals, Saudi Arabia Sept. 2015 – June 2017

Fabrication, characterization and corrosion behavior analysis of nano-crystalline bulk FeCrMo alloy, produced from amorphous alloy powder through spark plasma sintering technique.

- Characterization (From initial amorphous powder to final sintered samples).
- FE-SEM, EDS, XRD, DSC, Optical Microscope and XPS are some main characterization tools used in this work.
- Density measurement of samples sintered at different temperatures.
- Corrosion behavior analysis in chloride environments through electrochemical techniques such as Electrochemical Impedance Spectroscopy (EIS), Linear Polarization Resistance (LPR) and Potentiodynamic Polarization (PDP).
- Passive Film study through XPS and FE-SEM.

Professional Experience:

Lecturer in Materials Engineering Department

NED University of Engineering & Technology, Karachi, Pakistan Since November 2018

- Taught following courses with Practical (if applicable):
  - MM-305: Polymer & Composite Materials (Spring-2020)
  - MM-309: Constructional Materials
  - MY-201: Metallurgical

- MM-301: Corrosion: Protection & Preventions (Fall-19)
- MM-305: Polymer & Composite Materials (Spring-19)
- MM-301: Corrosion Protection & Preventions (Fall-18)

Thermodynamics & Kinetics (Fall-19)

- MM-307: Joining of Materials (Spring - 19)
- MM-204: Engineering Ceramics & Refractory Materials (Fall-18)

- Trained on Higher Education "**Outcome Based Education (OBE)**" system through local and **Harvard Online Teacher Training Course** arranged by NEDUET.
- Successfully complete one month "**Faculty Development Program**" arranged by NEDUET.
- Attain various training and lectures arranged by NEDUET time to time.

Management Duties in Department include:

- Class Advisor of Third Year since Feb-2019.
- Implementing **OBE** system on course level by guiding Course Teachers of Third Year.
- Arranging Internships for Third Year Students along with Industrial Liaison Department.

Research Assistance in "Center of Excellence in Nano-Technology" (CENT)

King Fahd University of Petroleum & Minerals, Saudi Arabia March 2015 – June 2017

- Proficient in operating Field Emission Electron Microscope equipped with EDS, FIB, GIS and EBDX camera.
- Operating XRD and proficient in using XRD data analysis software (PDXL).
- Managing Characterization & Imaging Lab of CENT having FE-SEM, XRD, DSC.

Industrial Internship Experience:

Intern in QAD/QC

People Steel Mills Limited, Karachi, Pakistan May2011- June 2011

Intern in Cast Iron/Aluminum Foundry

Atlas Engineering, Karachi, Pakistan July 2011