

Mudassir Farooq

Karachi, Pakistan

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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)**
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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.
- 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.

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).

Professional Experience:

Lecturer in “Materials Engineering Department”

NED University of Engineering and Technology, Karachi

Since November 2018

Supervised following Final Year Design Projects:

- ❖ Graphene enhanced zinc epoxy coating for corrosion protection of carbon steel.
- ❖ Design and development of green composite using natural fibers and gelatin matrix.
- ❖ Strengthening of Insulating False ceiling with waste Plastic.

Taught following Courses:

- ❖ MM-301: Corrosion: Protection and Preventions
- ❖ MM-305: Polymer and Composite Materials
- ❖ MM-309: Construction Materials

Third Year Class Adviser since Spring 2019 and some duties include:

- ❖ Managing Third Year Classes and Time Table.
- ❖ Facilitating course Teachers and students.
- ❖ Arranging Students Industrial Internships and their Feedback.
- ❖ OBE (Out-come Based Education) design implementation on course level.

Research Publications:

Journal Articles:

1. A. A. Sorour, **Mudassir Farooq**, A.Mekki, and A. M. Kumar. [Corrosion of a spark plasma sintered Fe-Cr-Mo-B-C alloy in hydrochloric acid](#), *Metallography, Microstructure and Analysis*,**10**, 291- 301 (2021).
2. Muhammad Fahad Riaz, Muhammad Samiuddin, **Mudassir Farooq**, Intizar Ali shah. [Analysis of Tafel polarization scans of Magnesium-Steel galvanic couple under different Corrosive Environments at various Temperatures](#) (accepted in *Revista de Metalurgia*)
3. **Mudassir Farooq**, M.Sohail Hanif, A. A. Sorour. [Corrosion of spark plasma sintered Fe-Cr-Mo-B-C alloy in simulated seawater environment](#).(submitted in *Journal of Applied Sciences*.)
4. Muhammad Samiuddin, Jinglong Li, **Mudassir Farooq**, Jiangtao Xiong. [Nano-indentation and corrosion behavior of diffusion welded CoCrNi Medium-entropy alloy \(MEA\) and SUS 304 stainless steel joints](#).(submitted in *Transactions of the Canadian Society for Mechanical Engineering*)

Honors and Awards

- **Full MS-Merit Based International Scholarship**
King Fahd University of Petroleum & Minerals, Saudi Arabia Jan.2015 – June 2017
- **Bachelor of Engineering with Distinction**
NED University of Engineering and Technology, Pakistan Dec. 2012