

## Curriculum Vitae

### Dr. M SAJID ALI ASGHAR

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#### Academic Qualifications

- **PhD:** **Nano Materials (for Engineering and Biomedical Applications)**  
The University of Sheffield, Sheffield, UK
- **M-E:** **Materials Engineering**  
NED University Of Engg. & Tech. Karachi Pakistan
- **B-E:** **Metallurgy & Materials Engineering**  
Dawood University of Engineering & Technology, Karachi, Pakistan
- **HSC:** **Pre - Engineering**  
Malir Cantt Govt Science College, Karachi, Pakistan
- **SSC:** **Science,**  
P.I.A Model P& S School, AirPort Karachi, Pakistan

#### Research Area

- **Synthesis of Functional (Ceramic and metallic) Nano Materials for Engineering and biomedical applications**

#### Working Experience

##### **NED UNIVERSITY OF ENGINEERING & TECHNOLOGY**

- **Assistant Professor** in Materials Engineering Department from  
**10th April 2012 to date**
- Joined as **Lecturer** in Materials Engineering Department from  
**30th April 2008 to 9th April 2012**

##### **ATLAS ENGINEERING FORMERLY ALLWIN ENGINEERING INDUSTRIES**

**Production Engineer**

**May, 2007 to April, 2008**

## Other Experiences

- 2010 to Date** Member/Secretary Board of Studies, NED University of Engineering & Technology
- 2010 to Date** Member/Secretary Industrial Advisory Board of MMD, NED University of Engineering & Technology
- 2009 to date** Final Year Design Project Coordinator, Department of Materials Engineering, NED University of Engineering & Technology
- 2012 to 2014** M. Engg Coordinator, Department of Materials Engineering, NED University of Engineering & Technology
- 2011 to 2014** PEC Coordinator, Department of Materials Engineering, NED University of Engineering Technology
- 2010 to 2014** Area Coordinator, Department of Materials Engineering, NED University of Engineering & Technology
- 2009 to date** Class Advisor (BE) Department of Materials Engineering, NED University of Engineering & Technology

## International Research Publication

1. Asghar, M.S.A.; Inkson, B.; Möbus, G. Giant radiolytic dissolution rates of aqueous ceria observed insitu by liquid-cell TEM. *ChemPhysChem* **2017**, 18, 1-6.
2. Asghar, M.S.A.; Sabri, M. Mohammad; Tian, Z. ; and Möbus, G, “In-situ irradiation of cerium precursors in TEM to study nanocrystal formation” *Journal of Physics: Conference Series*, Volume 902, conference 1. (<http://iopscience.iop.org/article/10.1088/1742-6596/902/1/012003>)
3. Asghar, M.S.A.; Inkson, B.; Möbus, G. “Ceria-Water-Reactions Studied by Liquid Cell TEM” *Journal of Physics: Conference Series*, Volume 902, conference 1. (<http://iopscience.iop.org/article/10.1088/1742-6596/902/1/012004>)
4. Asghar, Muhammad Sajid Ali<sup>1</sup>, Inkson, Beverley<sup>1</sup>, Seal, Sudipta<sup>2</sup>, Molinari, Marco<sup>3</sup>, Sayle, Dean<sup>4</sup>, Möbus, Günter<sup>1</sup>, In-situ observation of radiation chemistry of nanostructured cerium oxide in water. *Mater. Res. Express* Vol. 6, Issue No. 1 (2019) 015032 (<https://doi.org/10.1088/2053-1591/aae634>).
5. Asghar, Muhammad Sajid Ali, Ashraf Ali and Tariq Fawad, Failure Analysis of AISI-304 Stainless Steel Styrene Storage Tank., *Journal of Failure Analysis* (Springer) Published online: 30 April 2010, ASM International 2010

## Research Projects

1. Fabrication of Antimicrobial nano structure coatings.
2. Synthesis and Characterisation of TiO<sub>2</sub> Nano materials by chemical and Green method.
3. Synthesis and Characterisation of MgO Nano materials by chemical and Green method.
4. Synthesis and Characterisation of WO<sub>3</sub> Nano materials by chemical and Green method.

Manufacturing of Automotive Parts (**Al-alloys**) through DIE CASATING TECHNIQUES at Atlas Engineering Formerly Allwin Engineering

- Melting of Aluminum Alloys in Resistance Furnace
- Permanent Mould Casting and Problem arises during casting process
- Mechanical and Chemical Properties of Alloy and Micrographic examination of grade.
- Defect/Rejection and their solutions during casting

### International Trainings

- **Laser Work Station MICOS GMBH Germany** May, 2010.  
Operational and Routine Maintenance Training  
Laser Work Station for Laser Cutting, laser Engraving and Laser welding etc
- **X-Ray Fluorescence Spectroscopy (XRF) InovXsystem Netherlands**  
December, 2011.  
Operational and Routine Maintenance Training of Portable XRF
- **Scanning Electron Microscopy Training, UK 2014**
- **Transmission Electron Microscopy Training, UK 2015**
- **Electron Energy Loss Spectroscopy (EELS) Training, UK 2015**
- **TEM Liquid Cell Holder Training, UK 2015**
- **High Resolution Electron Microscopy Training, UK 2016**
- **Image-J software Training, UK MMC-2017, 1-4 July 2017**
- **Advanced Training of TEM Liquid Cell Holder, The University of York, UK, August, 2017**

### Local Trainings

- Installation and Operational Training of **Scanning Electron Microscope, FEI Quanta 200**
- Installation and Operational Training of **Energy Dispersive Spectroscopy EDS System ( OXFORD)**
- Operational Training of Portable **Phenom** for Optio-Electron Imaging
- Operational Training of **Olympus & Leica** Optical Microscope
- Installation and Operational Training of **Carbon Sulpher(CS 230)** Rapid Analyser
- Operational Training of **Ultrasonic, Eddy Current and Magnetic Particle** Analyser
- Operational Training of **TEM and STEM** in NIBJE, Faislabad, Pakistan

### Certification & Memberships

- **Level 1 Eddy Current Testing From NCNDT Islamabad**
- **Member of Pakistan Engineering Council**
- **Nano Materials Research Group NMR, Materials Department NEDUET.**