

# MUHAMMAD NAUMAN ALAM SIDDIQUI

**Contact No. : 0092-321-414-1900**

**Email: nauman.imme@pu.edu.pk**

**Residence Status: Pakistani, Permanent**



## Career Objectives

As a Metallurgy and Materials Science engineer, seeking a position as a researcher and learn modern techniques in the area of advanced materials and then impart knowledge and skills in the industrial sector.

## Professional Employment History (2009 - Present)

- **Previous Employment as "Manager Research Technical"** in Advanced Engineering Research Organization (AERO), NESCOM Pakistan from **Sep 2009 to 01<sup>st</sup> July 2014**.

### **Detail Job Description:**

Root Cause Analysis (RCA) and its preventions, working experience on Material characterization equipments like Scanning Electron Microscope (SEM), Optical Microscope, Metallography of materials, Hardness testing, Tensile testing, Optical Emission Spectroscopy, Material testing on dynamic & Static Load frames of metallic and newly developed advanced composite materials for qualification i.e. short beam and long beam compression test for Flexural properties of sandwich Composite structures, In-plane shear, edge-wise compression, Flat Compression testing.

- Present Employment as **Assistant Professor** in Institute of Metallurgy and Materials Engineering, IMME, University of the Punjab from **July 2014 till Present**.

### **Detail Job Description:**

Teaching responsibilities of Welding and joining processes, mechanical properties of materials including Labs of undergraduate students, Pakistan engineering council documentation activities, industry-academia linkage development committee member, research activities, student final year projects activities, management of undergraduate internship program.

## Areas of Research Interest:

- Welding Metallurgy
- Aerospace Composite Structures
- Metallurgical Failure Analysis (MFA)
- Mechanical Testing of Metals and Composites

## On Going Research Projects:

- Study of Welding Metallurgy using spot welding techniques of thin metallic sheets.
- Development of aerospace grade novolac phenol epoxy resin for composite

structures.

- Non-Destructive Testing of Welded Metals

## Research Publications:

I am the First Author with name "Nauman A. Siddiqui" in first two international Publications and third Author with name N. A. Sadiqui in third publication:

- **Failure investigation of wheel gear hub assembly of an aircraft.**  
<http://www.sciencedirect.com/science/article/pii/S1350630712000052>
- **Investigating the Failure of Bevel Gears in an Aircraft Engine.**  
<http://www.sciencedirect.com/science/article/pii/S2213290212000077>
- **Diagnosing the Cause of Dynamic Compression plate premature failure.**  
<http://www.sciencedirect.com/science/article/pii/S1350630713002902>

## Conferences:

- **Fabrication of Superhydrophobic Coatings on AA6061 Alloy**, Poster presentation in Material Science & Technology MS&T, Salt Lake City UTAH, USA 2016.

## Educational History

- **Masters in Metallurgical & Materials Engineering.** ( 2007-2009)

University of Engineering & Technology Lahore, Pakistan.

**Grade: A (82.18%)**

**Research work:** Effect of multiple weld passes on the mechanical properties and microstructure changes on medium carbon steel AISI 1045.

**Modules study:** Metal Working Processes, Powder Metallurgy, Engineering Ceramics & Composites, Materials Characterization Techniques, Deformation & Fracture, Heat Treatment of Metals & Alloys, Electrical & Magnetic Materials and Solidification Processes.

- **Bachelor of Science Engineering (Metallurgy & Materials Science) (2003-2007)**

Institute of Chemical Engineering and Technology (ICET), University of the Punjab, 54590, Lahore, Pakistan

**Grade: A (78.18 %)**

**Research work:** Development of AA 2024 Aluminum Alloy indigenously on Lab scale and after different heat treatment processes; comparative study was carried out with the standard.

**Modules study:** Metallurgical Engineering Principles, Extractive Metallurgy, Polymeric & Composite Materials, Materials Science, Process Engineering, Mechanical Properties of Engineering Materials, Non-Metallic Materials, Thermodynamic and Kinetics, Physical Metallurgy, Metal Shaping & Treatment, Ceramic Materials, Surface Engineering tribology and Corrosion Engineering.

➤ **Higher Secondary Certificate (F.Sc. Equivalent to ‘A’ Level) (1999-2002)**

**Grade: A (77.54 %)**

**Major Subjects:** Mathematics (A), Physics (A), Chemistry (A)

➤ **Senior Secondary Certificate (Matriculation Equivalent to ‘O’ level)**

**Grade: A (74.0 %)**

**Major Subjects:** Mathematics, Physics, Chemistry, Biology.

**Trainings on Technical Software**

- MATLAB, SOLIDWORKS, INVENTOR, ANSYS.

**Memberships/ Registration**

- Pakistan Engineering Council (**PEC**) (METAL/2031).  
➤ Member of Pakistan “**Society of Corrosion Engineers Pakistan**” (**SOCEP**).  
➤ Member of Pakistan Institute of Metallurgy and Materials Engineers (**PIMME**).

**References:**

**Prof. Dr. Mohsin Ali Raza**

**Director**, Institute of Metallurgy and Materials Engineering (IMME), University of the Punjab, Pakistan.

**Phone:** 0092-3344007940,  
+92-42-99230999

**Fax:** +92-42-99231159

**Email:** director.imme@pu.edu.pk

**Prof.Dr. Tahir Ahmad**

**Professor**, Institute of Metallurgy and Materials Engineering (IMME), University of the Punjab, Pakistan.

**Phone:** +92 - 301-4696769

**Email:** tahir.imme@pu.edu.pk