

HIFSA MAZHAR

Materials Engineer

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Dedicated Materials Engineer with a Master's degree, bringing over seven years of experience in academia as a Lab Engineer. Proven expertise in teaching diverse laboratory courses and serving as a Quality Assurance Coordinator, ensuring adherence to rigorous standards and procedures. A key contributor to the successful accreditation of the Pakistan Engineering Council by the Washington Accord, demonstrating strong leadership and collaborative skills. Committed to advancing materials science through innovative research and effective students mentorship.

SKILLS

- Technical Skills
- Teaching and Communication Skills
- Project Management
- Research and Analytical Skills
- Professional Development
- Laboratory Techniques
- Quality Control and Assurance
- Accreditation and Compliance
- Team Leadership
- Software Proficiency
- Collaboration and Interdisciplinary Work
- Safety Management and Protocols
- Process Improvement

PROFESSIONAL EXPERIENCE

Lab Engineer | Department of Materials Science and Engineering, Institute of Space Technology, Islamabad | 30th May 2021- 24th Nov 2022

- Taught different Undergraduate courses i.e. Polymers, Manufacturing and Casting, Composites and smart structures and their respective Labs.
- Designing of Complex Engineering Problems for various Labs and assessment of students as per provided rubrics.
- As a Quality Assurance Coordinator, developed and maintain quality assurance policies and procedures for academic activities.
- Served as a member of Outcome Based Education Committee (OBE) to devise courses learning outcomes for Undergraduate courses, curriculum planning and analyze current achievements.
- Organizing seminars, workshops and conferences.
- Operation of various research equipment (TGA, DSC, Viscometer, UV visible Spectrometer etc.).
- Implementation of Outcome Based Education (OBE) and Outcome Based Assessment (OBA) for accreditation from Washington Accord, a USA based Engineering Governing Body.

Teaching / Research Associate | Department of Materials Science and Engineering | Institute of Space Technology, Islamabad

18th Aug 2016-29th May 2021

- Taught different Undergraduate courses i.e. Polymers, Manufacturing and Casting, Composites and smart structures and their respective Labs.
- Designing of Complex Engineering Problems for various Labs and assessment of students as per provided rubrics.
- As a Quality Assurance Coordinator, developed and maintain quality assurance policies and procedures for academic activities.
- Served as a member of Outcome Based Education Committee (OBE) to devise courses learning outcomes for Undergraduate courses, curriculum planning and analyze current achievements.
- Organizing seminars, workshops and conferences.
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- Implementation of Outcome Based Education (OBE) and Outcome Based Assessment (OBA) for accreditation from Washington Accord, a USA based Engineering Governing Body.

Graduate Research Associate | | Institute of Space Technology, Islamabad | 11th Sep 2015-17th Aug 2016

- Designing of rubrics for various lab assessments
- Designing of course learning outcomes
- Assisting Professor in various tasks (marking of papers, formulation of result, invigilation duties etc.)
- Designing of blooms taxonomy and assessment of CLOs.
- Designing of KPIs for BS program

EDUCATION

- **MS (Materials Science & Engg.)**
Institute of Space Technology,
Islamabad, Pakistan – 2019
- **BS (Materials Science & Engg.)**
Institute of Space Technology,
Islamabad, Pakistan – 2014

PUBLICATIONS

- **Hifsa Mazhar**, Wilayat Hussain. "Synthesis and Characterization of MnBi Magnetic Alloy via Two Different Processing Routes." Key Engineering Materials 875 (2021): 76 - 80.
- Muhammad Abdul Moiz, Abdullah Mumtaz, Muhammad Salman, **Hifsa Mazhar**, Muhammad Abdul Basit, Syed Wilayat Husain, Muhammad Ramzan, "Enhancement of Dye Degradation by Zinc Oxide via Transition-Metal Doping: A Review". Journal of Electronic Materials 50, 2021, 5106–5121

CERTIFICATIONS

- International Workshop on 'Finance', Jointly organized by International Finance Corporation, Business Edge training programs and IST Pakistan.
- International Workshop on 'Marketing', Jointly organized by International Finance Corporation, Business Edge training programs and IST Pakistan.
- International Workshop on 'Business planning', Jointly organized by International Finance Corporation, Business Edge training programs and IST Pakistan.
- Workshop on 'Outcome Based Accreditation for faculty and quality directors' organized by Pakistan Engineering Council.
- Workshop on 'Project Management in MS Project' organized by Pakistan Manpower Institute.
- Training course on 'Reveling and understanding microstructure of engineering materials', NCNDT.
- Workshop on 'Electronic ceramic materials' jointly organized by IST and Institute of Technical Sciences, Serbia.
- Training on 'XRD, FTIR and LUMOS FTIR Microscope', Allama Iqbal Open University
- Workshop on 'magnetic materials', 15th ISAM held at National Center of Physics
- Training course on 'Rescue and First Aid at work place' by Directorate of Workers Education, Govt. of Pakistan