



Mustabin Intsam Afzal Ch

Results-driven Mechanical Engineer specializing in renewable energy and energy management, sustainability, and manufacturing industry. Proven track record in leading complex projects, optimizing engineering processes, and implementing innovative solutions. Skilled in energy and HSE/OHS audits, project management, vendor management, stakeholder collaboration and supply chain with a passion for driving sustainable practices in the industry. Currently leading 20+ professionals of Kohat Cement Company Limited.

Personal Details

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Achievements

- Sponsored project by NESCOM on RBCC engine design for suborbital vehicles (2021).
- Published paper on automatic temperature-sensitive fluid flow control in International Conference on Science, Engineering & Technology (2021).
- Awarded Team Head Award in Pakistan's largest technical Olympiad, Air-Tech (2019).
- Recognition for leading solar power project at Kohat Cement Company Limited (2023,2024).
- Awarded as a result-oriented employee of Kohat Cement Company Limited (2025).

Certifications

- Energy Audits- Developing your energy efficiency blue print – SGS Pakistan (2024)
- Inventory, Warehouse Management & Six Sigma – National Textile University (2024)
- Huawei Fusion Certified Installer (2023)
- Project Planning & Execution – University of Colorado (2023)

Key Contributions

- Lead development and execution of **35MW Solar systems** for Kohat Cement Co. Ltd, Gharibwal Cement Co. Ltd, Ultra pack Pvt. Co. Ltd, Nutribel Pvt. Ltd, and Art vision Pvt, Ltd.
- Implemented **complete energy management system with SCADA integration**, automating energy generation and suppression across 4 production lines for KCCL.
- Spearheaded **carbon footprint reduction initiatives** through renewable integration and process optimization.
- Developed dashboards, reports, and **benchmarking insights for energy/resource consumption** across multiple business units.
- Directed **25MW Coal Fire Power Plant (CFPP) project**, integrating renewable and conventional energy sources.

Professional Experience

Project Lead Operations

01/2023- present

[Kohat Cement Company Limited, Lahore/Kohat, Pakistan](#)

- Lead technical and commercial aspects of WHR, Wartsila engines, CFB energy, and PV generation systems
- Conducted internal energy and HSE/OHS audits and collaborated with third-party consultants to ensure compliance with standards.
- Prepared and maintained dashboards, and sustainability reports for internal and external stakeholders.
- Delivered trainings and awareness sessions on energy efficiency and sustainability practices.
- Negotiated contracts, managed procurement, and ensured cost-effective and timely project execution.
- Collaborated cross-functionally to align energy projects with business objectives and sustainability goals.

Management Trainee Engineer

07/2022 - 12/2022

[Kohat Cement Company Limited, Lahore, Pakistan](#)

- Supported implementation of annual HSE and energy targets through audits and SOP development.
- Developed centralized plant equipment and energy database, reducing downtime and maintenance costs by 20%.
- Managed \$8M inventory, introducing FIFO system and reducing waste by \$3.6M.
- Oversaw vendor performance for 1500+ accounts, increasing business contributions by 20%.
- Collaborated with auditors and stakeholders for compliance with environmental and energy standards.

Skills

- Energy Management Systems
- Audits & Compliance
- Renewable Energy Systems (Solar, WHR, Thermal)
- Carbon Footprint Reporting & Sustainability Dashboards
- Project & Stakeholder Management
- SCADA, Pvsyst, MATLAB, SolidWorks, ANSYS, SketchUp
- Communication, Leadership, Training Delivery

International Exposure

- China (02/2024): PV manufacturing plant visit, renewable technology exploration.
- China (06/2024): Attended Cement tech Conference and BESS manufacturing plant visit.
- China (05/2025): Participated in 3rd Sinoma Cement Green & Intelligence Summit, engaging with global leaders on sustainable cement production and carbon reduction strategies.

Languages

- English
- Urdu

Research Assistant

06/2021 - 06/2022

Shocks & Stars Engineering Pvt Ltd, Islamabad, Pakistan

- Conducted design exploration of Rocket Based Combined Cycle (RBCC) Engine for Sub Orbital Vehicles.
- Performed CAD modeling and CFD analysis using SolidWorks® and ANSYS®.

Design Internee Engineer

08/2022 - 10/2022

National Engineering & Scientific Commission (NESCOM), Islamabad, Pakistan

- Design Exploration of 3DOF Motion Platform (Crank Arm Based).
- Conceptual Design modeling was done on SOLIDWORKS® and computational fluid analysis was done on ANSYS®.

Maintenance Internee Engineer

08/2022 - 08/2022

Honda, Islamabad, Pakistan

- Experience in the general assembly department of Automobiles.
- Hand-on experience in the Periodic maintenance and General repair department. Gained experience in the paint and body department.

Education

Bachelor of Mechanical Engineering

2018 - 2022

Air University, Islamabad, Pakistan

Fsc Pre-Engineering

2016 - 2018

Punjab College, Arifwala, Pakistan

Matriculation

2014 - 2016

Iqra Public High School, Arifwala, Pakistan