

# Md Faisal Bin Shaikat

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**Seven years of experience in industrial and manufacturing engineering.** Skilled in industrial plant layout design, Lean methodology, and known for creative problem-solving through strong collaboration and teamwork.

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## EDUCATION

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**MASSACHUSETTS INSTITUTE OF TECHNOLOGY**, Online campus  
**Professional Education, Credential in Smart Manufacturing** December 2024

**LAMAR UNIVERSITY**, Beaumont, Texas  
**Master of Science, Industrial Engineering** December 2023  
CGPA 3.11/4.0

**SOUTHEAST UNIVERSITY**, Dhaka, Bangladesh  
**Bachelor of Science in Textile Engineering** December 2015  
CGPA 3.04/4.0

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## SKILLS

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• AutoCAD (2D) • SolidWorks • Catia • Microsoft Office • Python • MySQL • MATLAB • Minitab • Power BI • Visio • Quick base  
• Tableau • 5S • VSM • Poke Yoke • Six Sigma • ERP • Cycle Time studies • PFMEA • DFMEA • Kanban • Kaizen • Gemba

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## EXPERIENCE

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**FORM ENERGY**, (Contract based by Goken America )  
**Iron Air Batteries Manufacturing Company**, West Virginia, USA  
**Industrial Engineer** March 2024 to Present

- Designed industrial plant layouts for facilities ranging from 12.5 MW to 500 MW, optimizing 815K square feet of space. Considered key factors such as construction cost, process flow, material flow, warehouse layout, space utilization, and volumetric efficiency to achieve management approval.
- Conducted comprehensive CapEx and OpEx analyses for industrial facilities, focusing on factory-wide capital expenditures and operational costs related to material flow and staging.
- Optimized logistics operations for a 250 MW battery system plant using advanced industrial engineering models. Calculated optimal equipment quantities, including docks, pallets, and various carts, to ensure efficient parts replenishment and minimize downtime.
- Managed end-to-end procurement and implementation of industrial projects, from RFP development to final handover.
- Improved production efficiency by designing and implementing a robust material flow and storage system, including procurement of VRC, Roll Cart, Drum Handler, and Cathode Dunnage equipment.
- Optimized automated injection molding operations using 6 ENGEL machines. Designed layouts for drawing, loading/unloading areas, robot placement, and overhead conveyor delivery systems to streamline ring vessel production.
- Developed comprehensive product specifications and design documentation for battery systems, including anode, cathode, cell, module, and enclosure components. Collaborated with cross-functional teams to define business assumptions, product architecture, packaging requirements, process flow, headcount, installation drawings, BOM, waste management, and MEP needs.
- Demonstrated expertise in warehouse management by implementing strategies for efficient material handling and storage, including truck parts calculation, dock door optimization, and space allocation.
- Successfully implemented Lean manufacturing principles, driving a 22% improvement in cost through initiatives such as continuous improvement, 5S, and OEE.
- Led and executed comprehensive line balancing and installation projects for enclosure and module assembly in iron-air battery production, optimizing efficiency and minimizing downtime.
- Conducted a comprehensive capacity analysis for a 250 MW project, accurately determining direct and indirect headcount requirements to optimize resource allocation.
- Enhanced production efficiency by designing PFEP, IE model, optimizing buffer zones, and inbound/outbound logistics.
- Spearheaded comprehensive plant layout optimization initiatives, resulting in a substantial 35% reduction in footprint through innovative space-saving solutions.

**KOTTON FIELD INT LTD.**

January 2021- May 2022

**Clothing Manufacturing Company, Dhaka, Bangladesh****Industrial Engineer**

- Successfully Achieved a 27% reduction in defects and eliminated root causes of defects using Six Sigma tools, implemented Poka-Yoke devices to prevent errors, and fostered a culture of continuous improvement through Kaizen.
- Led the successful implementation of a Kanban system, resulting in an 11.7% increase in throughput and a 13.3% reduction in inventory by eliminating waste and optimizing production flow.
- Optimized apparel industry simulations and product design using Catia and SolidWorks, leading to a 7.732% reduction in development time and a 22.27% improvement in product quality.
- Experienced in applying MOST techniques to analyze and improve manufacturing operations, driving efficiency and cost savings.
- Successfully resolved warehouse capacity issues by utilizing FlexSim to simulate various scenarios and identify the most efficient layout and equipment configurations.
- Leveraged FMEA and PFMEA to identify potential failure modes in machines and processes, taking immediate action when RPN exceeded 100 to prevent adverse outcomes.
- Boosted line capacity OEE by 20% using VSM, and Takt Time, optimizing capacity planning and minimizing Capex.

**ARMANA GROUP LTD.**

January 2019 – December 2020

**A Renowned clothing manufacturing company, in Dhaka Bangladesh****Manufacturing Engineer**

- Oversaw comprehensive FAT and SAT testing to validate equipment performance and alignment with specifications for different types of Laser machines.
- Optimized inventory level of 1000+ SKUs using ABC segmentation analysis that reduced cycle stock by 31% and cost by \$50K+ also increased inventory turnover.
- Implement the 5S Lean method that increased warehouse capacity utilization by 28% and reduced waste by 42%.
- Meticulously documented dimensional data using Vernier Calipers, Height Gauges, and Tape Measures by reading blueprints containing GD&T and creating comprehensive Part Submission Warrants (PSW).
- Achieved 100% success rate in implementing engineering changes, with extensive experience in MIG welding and component assembly. Proficient in interpreting drawings and applying welding metallurgy principles.
- Conduct time studies, motion studies, work sampling, and quarterly projects with teams of mechanical and tooling engineers. Lead workshops and Gemba walks for 10+ people, including research for new \$75K A-Frames after the system incorrectly identified enough.

**ANANTA APPARELS LTD.**

February 2016 – December 2018

**A Renowned clothing manufacturing company, in Dhaka Bangladesh****Associate Manufacturing Engineer**

- Achieved a significant reduction in inventory defects by 2% per 1000 pieces through effective DMAIC implementation
- Streamlined operations through the development of new work instructions and manufacturing layouts using AutoCAD
- Leader of the KPO team for the improvement of productive processes, EHS, and quality.
- Consistently maintained scrap rates below 14.27% during ramp-up and post-SOP, ensuring optimal product quality and efficiency
- Worked with site leadership to set targets and projected costs for continuous improvement projects used to meet annual site goals for First Time Right, WCM savings, On Time Delivery (OTIF), and labor efficiency metrics.
- Conducted rigorous ROI analyses to support capital investment proposals, ensuring strategic allocation of resources
- Experienced in applying Six Sigma tools and techniques to drive continuous improvement and optimize manufacturing processes

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**Course and Certifications**

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- Osha-30 hour -General Industry
- Six Sigma Green Belt
- Six Sigma and the Organization (Advanced)
- Basic AutoCAD Learning (Lamar University)