

SHAH MD RAJIUR RAHMAN, P. Eng.
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PROFESSIONAL ENGINEER

Dynamic Leadership • Maintenance Management • Life Cycle Management

A transformational leader with experience in managing and overseeing highly professional technology group. A Professional Engineer by trade with a passion for data driven analysis and improvement. Capable of constructing complex numerical and statistical models using Python, R, SQL and Excel VBA. Very knowledgeable of **Maintenance Management, Preventive Maintenance** and **Evidence-based Decision Making process**. A proven track record of executing exceptionally critical and structured thinking and communicating concepts using visualizations and plain language briefing. Expert in **leading cross-functional teams**, contributing in **strategic planning** and **analysis**, planning work scope, **coordinating** and **executing** project activities, value stream mapping and improvement, engaging with stakeholders, establishing Key Performance Indicators (KPI). A quick learner, adaptable, an **excellent communicator** and an agent of change management to improve the productivity by making the process efficient and effective.

PROFESSIONAL EXPERIENCE

LRT Operations and Maintenance, ETS, City of Edmonton

Edmonton, AB

Methods Analyst

May 2019-Present

Data Analytics // Collaboration & Liaison // Project Management // Budget Forecasting

- Established data analytics platform (database, Tableau Server etc.) for LRT Operations and Maintenance section by working collaboratively with different city branches.
- Applied statistical analysis to estimate runtime between stations from a large dataset.
- Led mileage automation project (Derive mileage from ATS and auto update to SAP) from conception, design to implementation.
- Accomplished EPCOR LRT Process/System review project and made recommendation for improvement
- Developed section wide Gantt Chart in Smartsheet
- Analyzed reactive maintenance data for reliability based maintenance
- Analyzed LRT occurrence report and produced monthly presentation
- Working collaboratively with LRV Fleet team, LRT Operations, LRT System and Transit Facilities Maintenance group to analyze available data to bring insight for running the business effectively and efficiently.

McCoy Global

Edmonton, AB

Project Manager

December 2018-April 2019

Engineering Manager

April 2017–November 2018

Engineering Supervisor

January 2015–March 2017

Design Engineer

March 2011– December 2014

Strategic Planning // Leadership // Problem Solving // Budget Forecasting

- Worked with a project team to apply Industrial Internet of Things (IIoT) and cloud based solution for **predictive maintenance** of equipment with the application of Artificial Intelligence.
- Led productivity improvement project for a production cell and applied **Data Analytics** skill to analyze and optimize the production processes, determined inventory re-order point, forecasted long lead

items by analyzing past sales data, designed new shop floor layout for efficient production, material flow, and space utilization, applied **Lean Six Sigma** concepts and **5S**, made net present worth (NPV) and internal rates of return (IRR) calculations for new capital investment. The production capacity was doubled after the implementation of the project recommendations.

- Engaged directly with clients, assessed project scope and operating budget requirements, conducted elicitation process to understand stakeholder needs and synthesized information to work out SMART objective. Developed detail planning, managed a team of engineers, drafters and worked collaboratively with manufacturing personnel, vendors and QC specialists to accomplish the project objective on time and within budget.
- Managed multiple projects simultaneously by using advanced skills in Microsoft Project, forecasting assets, strategically allocating resources and steering operational efficiency through the engineering of innovative solutions to complex engineering challenges.
- Created macros and engineering worksheets by using Excel VBA to automate routine engineering and production tasks. Those programs improved the efficiency and repeatability of engineering and production work and are used extensively by those departments .
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- Worked closely with the IT department to develop an in-house tool "Request for Engineering Action", which is an online platform to make engineering request. The new tool enriched the communication between engineering and other departments. It is also used as a monitoring system to track the progress of specific request and it enhanced engineering resource utilization.
- Mapped, analyzed and improved the business processes in production control and engineering department. Created standard working procedure for various engineering and production control tasks.
- Conducted regular investigation and troubleshooting of production and customer issues, identified root causes, proposed solutions and produced detailed report to ensure proper action has been taken to eliminate the recurrence of similar event.
- Introduced "Skill Matrix" to a production cell to efficiently utilize resources and developed training plan for cross training. The concept has been adapted throughout the organization and has become standard procedure.
- Developed design procedure and guideline to standardize engineering design of McCoy products and conducted training sessions, mentored and coached engineering team members and shop personnels.
- Demonstrated system thinking skill by assessing and analyzing different options during decision making process and its impact to other departments or groups and made proactive action to mitigate any negative effect.

Project Highlights:

Project I: MHWIRTH—New Product Design & Development, Multi-Million-Dollar, 9-Month

Scope: Engaged with an international client in Western Europe to develop a casing model for their offshore drilling operations.

Efficiency Improvement: Pioneered practices that automated processes, enabled remote functionality of equipment's hydraulic system—integrated structural and mechanical components of the new design.

Workplace Safety: Enhanced workplace safety with the automation of remote functionality of the mechanical system. Led project design, development, quality control, installation and commissioning to exceed client's expectations.

Result: Executed the project and exceeded deliverables on time and budget—forged long-term agreement with the client to boost company’s annual revenues and market growth in Western Europe.

Project II: Stress Engineering & New Product Development, Multi-Million-Dollar, 6-Month

Scope: Led the development of a new product that surpassed quality expectations, enhanced revenues and drove client satisfaction ratings.

Quality Control: Pioneered finite element analysis and stress testing procedures that were integrated in the new product development phase. Led the design, development, testing and launch of the new Jaw series product line across Canada and internationally.

Results: Drove multi-million-dollars in annual revenues with the introduction of a new product line that catapulted company’s competitive advantage in Canada and International market.

COMPUTING SKILLS

Modeling Software: AutoCAD, SolidWorks, Autodesk Inventor, EPDM

Software: Word processing, presentations, spreadsheet, graphs, MS Project, Visual Basic Application, Visio, MySQL, R & Python, Tableau

EDUCATION, TRAINING AND CERTIFICATION

Master of Science in Mechanical Engineering—*University of Alberta*

2011

Bachelor of Science in Industrial and Production Engineering- *Bangladesh University of Engineering and Technology*

2006

Training & Certification:

- Project Management Certificate (2014, PMI Institute)
- Managing Big Data with **MySQL** (Jun 2018, Coursera)
- Business Metrics for Data-Driven Companies (Jan 2018, Coursera)
- Birkman Leadership Development Training (2018)
- Participated in business simulation “Pulling in the same direction” conducted by Celemi (2018)
- An Introduction to Operations Management (Nov 2012, Coursera)
- ISO 9001:2008 Internal Auditor Certification (2-day course, The Business Resource Center)
- Standard First Aid CPR/AED Level C (Expires: Apr 26, 2019, Canadian Red Cross)
- H2S Alive (Expires: Jul 5, 2020, ENFORM)

Professional Accreditation:

P.Eng.—APEGA, The Association of Professional Engineers and Geoscientists of Alberta

REFERENCES

Will be available upon request.