

Annas Khan

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EDUCATION

University of Waterloo | B.A.Sc. Chemical Engineering

Expected Grad: Apr 2019

Lean Six Sigma Canada | Lean Six Sigma Green Belt Certification

Apr 2018

SKILLS

Design: prototypes, material science, energy balance, process flow diagrams (PFDs) and P&IDs, DFM, DFA, GD&T

Testing: root cause failure analysis, FMEA, design of experiments (DOE), statistical analysis

Manufacturing: PLC, GMP, statistical process control (SPC), Six Sigma, 5S, TIM WOODS, kaizen, poka-yoke, Kanban system

Software: RS Logix, SolidWorks, AutoCAD, Minitab, MATLAB, ANSYS, MS Office, MS Excel VBA, SAP, SQL

Fabrication: CNC machining, soldering, wiring, lathe, band saw, mill, drill press, additive manufacturing

Food Science: HACCP, knowledge of food safety & regulations, formulation, Genesis R&D, microbiology, scale up, sensory

EXPERIENCE

Manufacturing Engineering Intern | Club Coffee | Toronto, ON

Sep 2018 – Dec 2018

- Created an opportunity to debottleneck a costly pinch point, generating \$150,000 in additional annual revenue
- Utilized SMED and Lean principles to reduce product changeover time by 35%, decreasing labor costs by \$192,000
- Set up and wrote software for a quality control vision system PLC using RS Logix
- Collaborated with a multidisciplinary team to develop a new package design with 7% less material usage
- Conducted labor and time studies to identify inefficiencies in existing processes, prioritizing based on total cost

Production Engineering Intern | Husky Energy | Lloydminster, SK

Sep 2015 – Aug 2016

- Managed the daily production and optimization of 115 oil wells, with 84% of wells above production targets
- Collaborated with cross functional departments to identify optimization opportunities for increasing oil production
- Conducted OPEX/CAPEX economics analysis and utilized FMEA principles to identify key risks associated with projects
- Prepared detailed service rig request programs for expense work overs and capital re-completion jobs
- Led multiple continuous improvement projects using the DMAIC Lean Six Sigma Framework, incorporating Design of Experiments (DOE), 5S, 8D and 5Whys problem solving tools

Quality Engineering Intern | Tenaris | Sault Ste. Marie, ON

May 2017 – Aug 2017

- Conducted a Gauge R&R study to reduce the measurement system variation in spectroscopy process of steel samples
- Developed detailed Control Plans to sustain gains from continuous improvement (CI) projects
- Coordinated and negotiated with suppliers to acquire quotes for new capital equipment within outlined budget
- Performed mill and lab audits to ensure department compliance with internal and ISO standards
- Established SOP's for lab equipment including spectroscope, tensometer and microscope to promote standardization

Product Development Intern | Maple Leaf Foods | Mississauga, ON

Jan 2015 – Apr 2015

- Identified the root cause of spice clumps in deli meat and implemented countermeasures to improve product quality, yielding \$50,000 in annual savings
- Developed a novel binder to replace the existing carrageenan based binder used in the MLF Value Chicken deli meat blend, incorporating DFM principles
- Commissioned a full scale 1000 kg deli meat plant trial to determine the feasibility of the new fiber based recipe
- Developed preventative maintenance (PM) documents for equipment to ensure total productive maintenance (TPM)

PROJECTS

Food Expiration Sensor

Feb 2017

- Developed a device to detect expired food using Arduino and electrochemical ammonia sensors
- Programmed an Android app in Java to communicate with device via Bluetooth and display expiration data
- Designed the housing for the sensors and Arduino in SolidWorks and printed using a 3D printer