AMAN KALRA

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Professional Experience

SCHNEIDER MILLS INC Taylorsville, NC, USA

Process Improvement Intern July 2019 – Aug 2019

- Used lean six sigma methodologies to determine hot ambient conditions in the slashing department were responsible for defective warps in the weaving room.
- Suggested and implemented ideas to cool the ambient temperature cost- effectively.
- Cooling the slashing department resulted in a 95% reduction in defective warps with negligible capital investment.

KK NONWOVENS (INDIA)- INTERLINING DIVISION New Delhi, India

Team Leader – Quality Control and Product Development Nov 2016 – July 2018

- Supervised the project from inception to implementation and played an instrumental role in streamlining production and quality.
- Solely set up a high- quality testing lab and imparted operations training to five personnel.
- Developed Polyamide and HDPE coated microdot fusible interlinings in collaboration with PCC, which could survive enzyme wash.
- Developed low melt fusible interlinings for domestic manufacturers that did not have standard fusing machines.

SAK FABRICS Himachal Pradesh, India

General Manager Dec 2015 – July 2018

- Solely responsible for the entire supply chain from sourcing to sales.
- Diversified applications of chemical bonded nonwoven fabric from interlinings to medical and insulation tapes, which resulted in a 100% increase of existing capacities.
- Suggested and implemented Pressure Reduction System and Condensate Recovery System for the steam boiler, which resulted in 60% saving in, fuel cost.

KK NONWOVENS (INDIA)- PACKAGING DIVISION Himachal Pradesh, India

Process Engineer and Team Member (Product Development) Sep 2014– Dec 2015

- Played a significant role in conceiving and implementing the idea of laminating on spun bond fabric and making the fabric hydrophilic which increased the turnover by 30% and profit margins by 10%.
- Individually conducted pan India field visits and devised marketing strategies for spun bond nonwoven.

Research Experience

The Nonwovens Institute / NC State University Raleigh, NC

Graduate Project Aug 2019 – Present

- Objective: To determine best Solution Blow Spinning process parameters for maximizing production rate and minimizing fiber diameter using PCL, PVDF and their blends as polymers and Acetone and DMF as solvents.
- Prepare a design of experiment (DOE) based on literature review and prepare solution blown samples based on DOE.
- Characterize samples using scanning electron microscopy (SEM) to determine fiber diameter, X- Ray diffraction to determine morphology and measure water contact angle to determine wettability of samples.

RV College of Engineering Bengaluru, India

Final Year Thesis Project Aug 2013 – May 2014

- Investigated vibration response analysis of vertical tail fin for unmanned aerial vehicles.
- Designed and Fabricated vertical tail fins using two different composites and conducted experimental modal analysis and verified results using finite element analysis.
- Published thesis in IOSR journals as co-author.

Education

M.S., Textile Engineering | North Carolina State University — Dec 2019
B.S., Mechanical Engineering | RV College of Engineering, Bengaluru, India — June 2014

Skills and Interests

Computer: Microsoft Office, Solid Edge, NX Unigraphics, CNC Train, Ansys, C++

Technical: DSC, SEM, Rheology, troubleshooting in textile production, fabric costing, Lean Six Sigma.

Languages: English (proficient), Hindi (native), French (intermediate).

Interests and Affiliations: Active volunteer at Savera Social Welfare Society, Vice General Secretary-RAAG- Social Club of RVCE, Zonal Level Squash Player