NATARAJ ASHOK MUNOLI

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Software Skills

Solidworks, AutoCAD, Robot Programming (Karel & V+), CNC programming, PLC Ladder Logic Programming(RS Logix 5000 & Studio 5000), Minitab, MS Office, Latex.

Technical Skills

Lean Six Sigma, Lean Manufacturing (Kaizen, kanban, 5S, Takt Time) , New Product Development, Design of Experiments (DOE), Process Improvement (DMAIC), DFX, Six Sigma, Statistical Analysis (Hypothesis testing & ANOVA), FMEA, Reading drawings and GD&T, Project Management.

Education

MS, Mechanical & Manufacturing Systems Integration — 08/14-05/17
Specialization - Manufacturing Automation — GPA : 3.2/4
Rochester Institute of Technology, Rochester NY

BS, Mechanical Engineering — 06/09-06/13
BVB College of Engineering, India — GPA : 7.7/10

Experience

Teaching Assistant, Robotics & Automation Lab at RIT, Rochester, NY — 06/15-07/16

Taught graduate and undergraduate students the fundamentals of robot programming, PLCs (Rockwell Automation), wiring I/O, and integrating PLCs with work cells. Ensured seamless functioning of the robotics lab by setting up and troubleshoot lab equipments, which included Fanuc LRmate, Adept, Cognex/iR vision systems, and Rockwell Automation PLCs

Design Engineer Intern, Microfinish Pumps, India — 02/14-04/14

Actively engaged in a cross functional team to review and select designs of existing valve operating systems. Designed different valve components using AutoCAD.

Design Engineer Intern, SRV Automations, India — 08/13-01/14

Successfully developed and tested hydraulic components complying to the constraints of limited tank capacity, washer size and water jet power for a washing machine unit for Caterpillar engine blocks. Used the actual engine block to map and place the water jets for best possible cleaning.

Thesis

3D Hybrid Model for New Product Development

The model employs iterative approach to facilitate innovative approach and risk management. Addresses and aids NPD procedures, such as, understanding needs & technical requirements better, cost control & scheduling activities, testing & validation, cross functional approach & decision making.

Projects

Candy Manufacturing Cell (STEM Education)

Designed components and layout and machined components for a prototype chocolate manufacturing cell. Worked with local STEM school teachers to develop a curriculum around the cell to help aid students understanding STEM concepts.

S'mores 2.0

Assisted the undergraduates' capstone project (S'mores Cell) with planning and integrating work cells with PLC (Rockwell Automation) and FANUC 200iC robot. The project was the most visited exhibit at Imagine RIT.

Lean Six Sigma Simulation Project

Aim was to improve serving time of the SigmaBrew Coffee Franchise. Result achieved was a 300% reduction in serving time, 12% ROI, and a Six Sigma level in this project. Conducted hypothesis using Minitab and analyzed data using process capability, measurement system analysis (Gage R-R), regression, and ANOVA.