#### **NATARAJ ASHOK MUNOLI**

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#### **SOFTWARE SKILLS**

- Solidworks
- AutoCAD
- Robot

Programming (Karel and V+)

- CNC Programming
- PLC Ladder Logic Programming (RSLogix 5000 & Studio 5000)
- Minitab
- MS Office
- Latex

### **TECJNICAL SKILLS**

- Lean Six Sigma
- Lean

Manufacturing (Kaizen, Kanban, 5S, Takt Time)

- New Product Development
- Design of Experiments (DOE)
- Improvement (DMAIC)
- DFX
- Six Sigma
- Statistical Analysis (Hypothesis testing & ANOVA)
- FMEA
- Reading drawings and GD&T
- ProjectManagement

#### **EDUCATION**

MS, Mechanical & Manufacturing Systems Integration
Specialization - Manufacturing Automation
Rochester Institute of Technology, Rochester NY
BS, Mechanical Engineering
B.V.B College of Engineering & Technology, India

2014 -2017
GPA: 3.2/4
CPA: 3.2/4
CPA: 7.7/10

### **EXPERIENCE**

### **Teaching Assistant**

**Robotics & Automation Lab** 

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 robotics & PLC lab by setting up and troubleshooting lab equipment, which included Fanuc LRmate, Adept, Cognex/iR vision systems, and Rockwell Automation PLCs.

# **Design Engineer Intern**

02/14 - 04/14

06/15 - 07/13

Microfinish Pumps

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**

08/13 - 01/14

**SRV Automations** 

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 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 manufacturing undergraduate capstone project (Automated S'mores Cell) with planning and integrating work cells with PLC (Rockwell Automation) and FANUC 200iC robot.

## **Lean Six Sigma Simulation Project**

Aim was to improve serving time of the SigmaBrew CoffeeFranchise.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.