ENGINEERING OFFICER

Objective

Looking for opportunities to work in an research environment for creating solutions using digital systems at circuit as well as system level.

Education

Master of Science : Electrical Engineering 2017 North Carolina State University City , State , USA

Bachelor of Engineering : Instrumentation and Control Engineering 2013 Netaji Subhas Institute Of Technology City , State , India

Majored with **78.34 %, First Class With Distinction** Â

Academic Merit Award 2011-12 and 2012-13

Experience

Engineering Officer 07/2014 to 06/2015 Company Name City , State

Spearheaded a team of electricians and technicians to carry out preventive maintenance of equipment of LPG bottling plant. Role also entailed procurement of spares and materials and maintain inventory at plant. Major tasks involved:

- Maintenance and calibration of equipment such as cylinder gas leak detectors, washer leak detectors, gas analyzers etc.
- Upkeep of electrical panels and control systems.
- Maintenance of drive units, compressors, LPG pumps etc.
- **Modified and developed various plant equipments to improve production line throughput.**

Operations Officer 06/2013 to 06/2014 Company Name City , State

Oversaw the operations of LPG bottling plant production activities.

- Managed workforce on the production line to give maximum production while maintaining safety standards.
- Optimized the production line equipment and maintained regular calibration checks of equipments like quality check machines to produce hazard free bottled cylinders.

Intern 06/2012 to 07/2012 Company Name City , State

Engaged in various automation and control system design using Distributed Control Systems and Programmable Logical Controllers. Learned interfacing of instruments with Controllers and their respective communication protocols.

Documented and created a report as a reference manual on the technical details of various systems and instruments which was presented to the company.

Intern 06/2011 to 07/2011 Company Name City , State

Learned about the various instruments used in different process applications of the petroleum refinery. Knowledge of the use of intrinsically safe devices in hazardous areas and the ratings of equipment as per the hazardous zones. Interfacing of these instruments with Distributed Control Systems and parameters of tuning the PID controllers

Published Work

Research Paper: Â

K.P.S. Rana, N. Mittra,**N. Pramanik** , P. Dwivedi and P. Mahajan: " **Virtual Instrumentation Approach to Neural Network Based Thermistor Linearization on Field Programmable Gate Array** "; Experimental Techniques Volume 39, Issue 2, pages 23â€"30, **Jan 2013** Â

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Conference Presentation: Â

K. P. S. Rana, Vineet Kumar,**Neel Pramanik** , Nishant Mitra, Sumit Kumar Shakya: "**Some Applications of FPGA in Custom Waveform Generation and Triggering for Metrology** ";Conference: 8th International Conference on Advances in Metrology (AdMET), Organised jointly by CSIR-NPL and Metrology Society of India, At New Delhi, India, **Feb 2013** Â

Projects

Company Name City , State

Engineering Officer 12/2014

Programmable Logic Controller (PLC) Based Chain Conveyor Tripping System

- Designed a control loop which was interfaced with a Allen Bradely PLC controller to read the current readings of individual drive units and provide appropriate tripping signals as per the motor health.

Engineering Officer 06/2014

Infrared Sensor based telescopic boom tripping system

- IR sensor based intrinsically safe system that detects presence of objects in front of moving machinery and trips them instantly.

Operations Officer 01/2014

Infrared sensor based automatic hot air sealing machine

- Modified old pneumatic based cylinder sealing system to an electro-pneumatic and infrared sensor based sealing system. Improved production line performance by 1000 cylinders/ hour.

Company Name City , State
Bachelor of Engineering 06/2013

Some Intelligent Controllers for HVAC system

- Implementation of various control techniques for power management like PWM, PI control , Fuzzy PI control on FPGA target which was the standalone controller for the HVAC system. Designed and implemented a modern Fractional Order PI controller on target which obtained better results.

Skills

- **Design Software:** LabVIEW, Synopsys Design Vision, Modelsim, Cadence Virtuoso
- **Programming Languages:** C/C++, Verilog
- **Operating Systems:** Windows, Linux, OSX
- **Equipment:** Oscilloscope, Spectrum Analyzer, Multimeter

Accomplishments

- Certificate of Merit in academics, NSIT, 2011-12, 2012-13
- Green House Vice Captain, Senior Secondary
- Black Belt in Taekwon-do