

Snehal Dashpute

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SUMMARY

- Electrical Engineer with Hardware design experience, pursuing MS in Electrical Engineering at Syracuse University, New York.
- Experience with design analysis, design specification verification plus debugging and knowledge about Automobile Testing products.
- Experience with power systems, microgrids, power distribution systems, relay design, transformer design and microcontrollers system-based design.

EDUCATION

Master's in Electrical Engineering, – Syracuse University, Syracuse, NY

Dec 2020

Bachelor's in Electronics and Telecommunication, Mumbai University – Mumbai, India

June 2018

TECHNICAL SKILLS

Tools: MATLAB, AutoCAD, LT-Spice, Cad Soft Eagle, PCBA, Keilc51, Power World, Microsoft Office.

Lab Equipment: Multimeter, Oscilloscope, Signal generator, Spectrum analyzer.

Programing Languages: Python.

OS: Windows, Linux.

Knowledgeable in Compliance standards: UL, CSA, IPC, CAN, IEC.

TECHNICAL EXPERIENCE

R&D Electrical Engineer Intern

May 2020 – Oct 2020

INFICON, New York, USA

- Developed and researched on semiconductor - based silicon wafer project for sensor heating applications.
- Researched on Quartz Crystal Microbalance (QCM) and performed E-beam process for deposition on crystal for sensors.
- Tested oven sensor for Samsung, TSMC, Micron for quality, performance, reliability.
- Procured parts, built and tested temperature controller for Ru/Co, NH₄NO₃ and TiCl₄ applications. Built sensors for various companies.
- Built and tested Low Pass Filter, Detectors and Emitters for atomic sensor using Surface Mount Technology and lab equipment.
- Worked within a team on database migration and testing for OrCAD Component Information Portal (CIP).

Application & Service Engineer

May 2019 – Dec 2019

A-S Engineering Ltd, Mumbai, India

- Designed two-layer PCB board with low voltage and assembled by following IPC standards.
- Verified specifications using oscilloscope and managed mass production follow-up testing at production and manufacturing department.
- Evaluated requirements based on application for Refrigerant, Helium and Hydrogen leak detection, analyzed errors and debugged errors.
- Developed & defined test requirements to validate products.
- Gained Exposure to design qualification testing (EMI/EMC, Safety, and Environmental) and conformance standards such as FCC part 15, IEC 60601, EMI/EMC.

PROJECTS

Wireless Temperature Sensor, Wafer Sensing Technology

- Researched and developed wireless temperature sensor using silicon wafers.
- Power supply provided using 2032-coin battery cells, slide in and out, of 5mm height, battery holders for quick battery change.
- Experimented with using thin film batteries to replace coin batteries and making external power supply for the project.

Designed a Top Roof PV System with variable Characteristics using PowerWorld

- Developed model for a top roof PV system to process 5 kW of power at 220V, 60 Hz, single phase AC. Determined the total number of PV modules in a string & number of strings in an array using PowerWorld Software.
- Calculated DC output power, inverter specification M_a , M_f & sketched the one-line diagram. Similarly done for 500 kW of power at 460 V, 60 Hz, three phase AC. Calculated duty ratio, total string, array power and concluded total PV module weight and total area.

Eye Movement Controlled Wheelchair (Wireless)

- Interfaced an IR sensor with an 8051 microcontroller.
- Programmed microcontroller's functionality for various time periods for movements using Keil Software.
- Attached motors for mechanical testing for various loads and built a prototype of the project.
- Documented the entire project and presented it at the MULTICON 9th International Conference.

CERTIFICATIONS

Python, Solar Energy Course, Fundamentals of Electronics, Linux command line, Etap certifications for Distribution Automation, Etap Hazard Evaluation of Stored Capacitor Energy, Product Design, NAGPS Leadership Academy, Graduate Professional Student Leader.