

Electrical Engineer

Sagar Anilkumar Shah.

Career Objective

Highly skilled and resourceful Entry Level Electrical Engineer with a superb work ethic and engineering research background. Adept at explaining extremely complex engineering principles and procedures to a wide variety of professional and non- professional audiences. Up-to-date with changes in technology & business implications

/ applications of new technologies aspire to yearn my career as a **Electrical Engineer** in **Any Domain** with capabilities to generate innovative ideas and integrate them into desired results.

Education

Bachelor of Engineering in Electrical with 6.58 CGPA

Gujarat Power Engineering College and Research Institute, Mevad
- Mehsana **Completed Courses in Major:**

Circuits And Networks, Analog And Digital Electronic, Basic Electronics, Electrical And Electronic Measuring Instrument, Electrical Power, Electrical Machines, Power Electronics, High Voltage Engineering, Theory Of Electromagnetics

H.S.C (Science Stream) with 51.4% in year 2013

Laxmichand Sunderji Vidhayalay Siddhpur, GSSHEB

S.S.C. (Science) with 61.92% in year 2010

Laxmichand Sunderji Vidhayalay Siddhpur.– Gujarat Secondary Education Board

Technical Skills

Inverter, Alternator, Potential Transformer, Current Transformer, Ac–Drive, Dc–Motor, Ac– Motor, Dc–Generator, Basic electronic, Vector network analyzer, Spectrum analyzer, electrical circuit making compact

Program :- MATLAB, PSIM, Proteus Professional

Experience

- 1 year experience in Taksh Agro & Electricals private Limited **as line supervisor in Transmission line field work.**
- Graduated apprenticeship in **Institute for plasma research** in department of **Microwave absorption tiles for stealth application (MATS)** training last 11 months to till now.

Project

➤ **Working with microwave signals:**

I have a working knowledge of microwave signal transmission, reception and its analysis. The experiments were carried out in free space as well as in the anechoic chamber to characterize various devices. Primary instruments that were used were standard gain horn antenna, microwave source, microwave spectrum analyzer and Vector Network Analyzer. This also involved microwave connections using SMA and N-type low loss cables, adapters and connectors. I have an experience of using these networks efficiently.

➤ **Etching and disposition to the plasma**

NF3 Glow Discharge RF Plasma System: I work on the NF3 glow discharge RF plasma system used to etch the silicon wafer. NF3 glow discharge RF plasma system includes the Gas distribution system, NF3 leak detection system, Plasma reactor and RF power supply. Gas distribution system includes the gas cabinet including NF3, Argon and nitrogen cylinders along with pressure regulators and Mass flow controller (MFC) to measure the gas flow rate. A typical 13.56 MHz radio-frequency (with help of RF power supply) glow discharge plasma drives highly mobile electrons to collide with neutral gas atoms and molecules, resulting in ionization and dissociation of a reactant gas. In this plasma etching system, the substrate is placed in a vacuum chamber on the powered electrode connected to the RF generator and gases are introduced to produce the plasma. NF3 gas in plasma generates many Fluorine atoms (free radicals), which are highly reactive and spontaneously react with substrate (Si) to produce volatile product (SiF4) which will be pumped away by the vacuum pump.

➤ **Arduino based solar power parameter measurement and storage system**

This project aims to develop a measurement of solar energy using Arduino. In this research, four parameters that been measured are temperature, light intensity, voltage and current. The temperature was measured using temperature sensor. The light intensity was measured using light dependent resistor (LDR) sensor. The voltage was measured using the voltage divider because the voltage generated by the solar panel are large for the Arduino as receiver. Lastly for the current was measured using the current sensor module that can sense the current generated by the solar panel. These parameters as the input value for the Arduino and the output was display at Liquid crystal Display (LCD) screen. The LCD screen display output of the temperature, the light intensity, the voltage and the current value. The purpose of Arduino to covert the along input of parameter to the digital output and display via LCD screen. Other than that, this project involves with a design to ensure that device case are easy to be carry around.

Publication:

1. Transmission Characteristics of plasma based microwave absorbing panel on near and far field region of testing antenna **(Technical Report IPR)**
2. Transmission Characteristics of plasma based microwave absorbing panel on near and far field region of testing antenna **(2022 IEE Microwaves, Antenna, and propagation conference MAPCON)**
3. Measurement of plasma frequency and collisional frequency of plasma-based microwave absorber using microwave diagnostics – a simulation and experimental approach **(national conference on recent developments and evolving trends in plasma science and technology & pre-workshop on modeling and simulation of industrial plasma 22-24, Bharthiaruni university, Coimbatore, tamilnadu)**

Personal details

Date Of Birth	25 September 1996
Marital Status	Single
Languages Known	English, Hindi, Gujarati.
Nationality	Indian
Personal Interests	Listening Music, travelling
Address	17, Suryodaypark society near Somnath circle Mehsana,384001 Gujarat

References

H.L.Swami (IPR)
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