Shashank Agarwal

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Education

•Punjab Engineering College, Chandigarh *2021-Present*
B.Tech In Electrical Engineering CGPA: 6.04

•SGGS Collegiate Public School, Chandigarh *2019-2021*
11th and 12th Percentage: 86.8%

•The Gurukul, Panchkula *2017-2019*
9th and 10th Percentage: 85%

Experience

•Statcon Electronics India Limited *Noida*
Embedded Software Internship January - June, 2024

- Studied and gained proficiency in PLL (Phase-Locked Loop), Park Clarke Transform, PI (Proportional-Integral) controller, and feedforward control concepts through self-directed learning and online resources.
- Practiced implementing these concepts in MATLAB simulations to understand their practical applications in control systems engineering.
- Explored the Zeigler-Nichols method for PI tuning to optimize controller performance in various control systems applications.
- Demonstrated ability to apply theoretical knowledge to real-world problems, enhancing understanding of electrical engineering principles and advanced control techniques.

Projects

•CanSat Ground Station *Ongoing*
Developing a ground station for CanSat using React Vite.

- Utilizing React Vite to create a web-based ground station interface for receiving and analyzing data from CanSat missions.
- Implementing real-time data visualization and telemetry features to monitor the CanSat's performance during flight.
- Integrating features for data logging, mission planning, and remote control functionalities into the ground station software.
- GitHub repository : https://github.com/Gagan-Space/Cansat-Ground-Station

•Dino Game *3rd Semester*
Made a replica of the famous Chrome Dino game

- Developed using an ESP8266 Xtensa-based 32 Bit Microcontroller, capable of scoring and storing the highest score in memory.
- Exploration project to showcase the capabilities of the ESP8266 Microcontroller.

•LiPo Charger *3rd Semester*
Designed and fabricated a lithium battery charger

- Designed and fabricated a LiPo charging circuit using a custom-designed PCB and TP4056 lithium battery charger IC.
- Suitable for embedding in low-power applications powered by lithium polymer cells.

Technical Skills and Interests

Technical Skills:Arduino, C++, Analog Electronics, Digital Electronics, PCB Designing, Circuit Simulation, MATLAB, Web Technologies, ROS, Linux
Soft Skills: Reverse Engineering, Problem Solving, Team Player, Critical Thinking
Areas of Interest: Computers and its history, Operating Systems, Robotics, Control Algorithms, Digital Signal Processing, Image Processing
Languages: English, Hindi

Achievements

•2nd Prize in Electrovis organised by IEEE PEC student chapter *2022*

•1st Prize in Robo Race organised by Robotics Society PEC at PECFEST *2022*