

# PASAN SANJULA PERERA

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## EDUCATION

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### **Sri Lanka Institute of Information Technology**

*2020 - Present*

Bachelor of Science in Engineering

Specializing in Electrical and Electronic Engineering

Expected Graduation: *March, 2024*

### **Ananda College, Colombo 10**

*2011 - 2019*

*G.C.E Advanced Level Examination*

*Physical Science (Combined Mathematics, Physics, Chemistry)*

## TECHNICAL PROJECTS

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### **Autonomous wall following robot (Group) [Ongoing]**

*August 2021 - October 2021*

Designing and engineering an autonomous wall following and obstacle avoidance robot using fuzzy control algorithm on a Microchip PIC microcontroller. I am developing the Bare-metal firmware and software stack in C for the project including a custom library for PIC16 8-bit microcontroller family and planning to use Hardware in the Loop designing concepts to optimize the algorithm.

### **BJT Audio Amplifier (Group) [Ongoing]**

*August 2021 - October 2021*

Designing an audio amplifier using a 2N2222 Bipolar junction transistor. I am responsible for designing and manufacturing a PCB for the project after initial simulations and prototyping.

### **Car Park Management System**

*May 2021*

Designed and developed a car park management system in Java using only standard libraries and following Fundamental Object Oriented design patterns. The program was developed as a console application with the ability to improve over time.

### **Queue Length Counter**

*May 2021*

Designed and simulated a digital circuit using only logic gates to count the occupied slots and to check the availability of slots in a queue where the number of slots are predefined. Used National Instruments Multisim 14 as the simulation environment.

### **Battle of the Maroons Live Score Application**

*November 2017 – March 2018*

Developed a cross platform mobile application along with the team using Angular, Ionic and Firebase in order to provide live updates of 89th Battle of the Maroons cricket encounter. I managed the project as the project coordinator and contributed to the design of the core architecture.

## TECHNICAL SKILLS AND COMPETENCIES

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### **Programming Languages**

Python, C/C++, Java

### **Hardware Description Language**

System Verilog

### **Software Tools**

Matlab, Simulink, Proteus, Multisim, Vivado

### **Operating Systems**

Linux, Windows, MacOS

### **Hardware Platforms**

MSP430, Microchip PIC