

# 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

*August 2021 - September 2021*

Our group designed and prototyped an autonomous wall following and obstacle avoidance robot using fuzzy control algorithm on a Microchip PIC microcontroller. I developed the Bare-metal firmware and software stack in C for the project including the control algorithm while using Hardware in the Loop concepts to test and optimize the algorithm.

### BJT Audio Amplifier

*August 2021 - September 2021*

Our group designed an audio amplifier using a 2N2222A Bipolar junction transistor. I designed the PCB layout for the circuit using Autodesk Eagle after initial simulations and prototyping using National Instruments Multisim 14.

### Car Park Management System

*May 2021*

I 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*

I 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

C/C++, Python, Java

### Hardware Description Languages

System Verilog

### Software Tools

Matlab, Simulink, Proteus, Multisim, Eagle, Vivado

### Operating Systems

Linux, Windows, MacOS

### Hardware Platforms

MSP430, Microchip PIC