

PASAN SANJULA PERERA

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EDUCATION

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

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

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