

# ASHVIN MENDIS

#### **OBJECTIVE**

To attain a position based on Electronic and IT in a renowned organization in the dynamics and competitive fields with the intention of contributing to the growth of the company with my knowledge while uplifting my professional skills.

#### PERSONAL INFORMATION

Full Name: Balapuwaduge Dinindra Ashvin Mendis

Gender: Male

Birthday: 24<sup>th</sup> August 1995 Nationality: Sri Lankan

## CONTACT DETAILS

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Gampaha.

#### Portfolio Profile:

<u>ashvinmendis.github.io/ashvinm</u> <u>endis</u>

# **ACADEMIC QUALIFICATION**

- Master of Engineering (Hons) Mechatronics Engineering (2018-2019)
   Classification: Second class upper division
   Awarded by University of Wolver Hampton UK.
   Institute CINEC Campus, Malabe.
- Bachelor of Engineering (Hons) Mechatronics Engineering (2015-2018)
   Awarded by University of Wolver Hampton UK
   Institute CINEC Campus, Malabe.

# Project: Smart Gloves for Deaf (Group)

Smart-gloves convert the sign language into words (voice) via a mobile application. This creates the opportunity for the deaf persons to communicate with others. Solely designed the smart-glove circuit -PCB (similar to the size of a smart-watch) and the Bluetooth master-slave programming with Arduino.

### Project: Pet Feeder Robot (Individual)

Enable to feed pets with the Pet Feeder Robot by using the mobile application without distance barriers and watch the pet with mini-cameras of the robot. Can fully control by a smart phone. Designed the robot by Solidworks and lacer cut from metal and acrylic. Designed the circuit (PCB) and programed with Raspberry Pi. Designed the GUI with Python.

## Project: 3 in 1 Electric Coconut Scraper (Group Innovation)

3 in 1 Electric Coconut Scraper can grind, scrape the coconut and squeeze the scraped coconut. Designed a new mechanism as a group to control all the tasks from one gear motor. Contributed in Solidworks designing and intellectual part of the innovation.

#### Project: Smart Railway Gate System (Group Project)

Automatically the railway gates get open and closed with the IR sensors and active the railway signal lights. Solely did the programing with Arduino.

- Currently following certificate course in web developing design and development at NIBM.
- Advance Level- Bandaranayake College Gampaha (2014)
   Project: Gasoline Two Passenger Motorcar (School 90<sup>th</sup> Anniversary)
   A motor car fully designed and developed by the group. Solely build the electronic security system to start the motor car.

#### TECHNICAL KNOWLEDGE & SKILLS

- Programming: C++|Python| HTML| CSS | JavaScript | PHP | MySQL
- **Development Tools:** Arduino | Android Studio | Node Red | Visual Studio
- Designing Tools: Eagle | Proteus | Solidworks
- Microcontrollers: ESP8266 | ESP32 | ATmega Microchips | PIC
- Other: Microsoft Office | Adobe Elastrator
- Have advance skill of designing circuits and soldering SMD.
- Excellent with Arduino, Eagle CAD, Proteus simulator.
- GPIO, I2C, MQTT protocols.
- Intermediate with Android studio, Solid work, Raspberry Pi and PIC programming and Matlab.

## **WORKING EXPERIENCE**

## 1. DIMO LANKA – DIMO Digital (August 2019-December 2020)

- **Project: IR AC Controller** Designed a circuit and programmed which can turn off and turn on any air conditioner with the window state (window open or close). Implemented the unit hardware and software for sate of a door and human detection.
- Project: Power monitoring Designed circuit which can measure voltage, current & power and send values to MQTT server true WIFI. Used ESP-12F microcontroller. Edited firmware and developed programming code by Arduino. Developed an Android mobile application and designed a dashboard using Node-Red to monitor the live data values by using MQTT messaging protocol.
- Inspect the BYD full electronic car chargers of DIMO clients, Worked on GPS platform.

# 2. ORANGE ELECTRIC – Research and Development (July 2017- January 2018)

- **Project: Touch switch Panel (Individual)** 8 gang touch switch board, which can be controlled by Bluetooth. Designed the circuit, Arduino programming and developed demonstrate mobile application using MIT app inventor.
- **Project: Light Dimmer (Individual)** Designed the circuit which can dim AC 230V bulbs and the Arduino programming.
- **Project: Power Supply (Individual)** Designed 230V AC to 5V DC power supply circuit.
- Participated and conducted as an Orange volunteer in MICROBIT project which have organize by the government and Orange Electric for school students and teachers at BMICH.

## PERSONAL PROJECTS

- **Smart Curtain System** Designed a circuit and a mechanism to roll up and roll down the curtain. It is controlled by smart phone with WIFI. Used ESP-12F microchip.
- **RFID Smart Gate Lock System** Designed a circuit and a mechanism to integrate the gate locker which can unlock by RFID card and smart phone. Used RFID module and ESP-12F microchip.
- Automatic Room Lightning Controller- Used IR proximity sensor. Designed a circuit. When entering the room,
   the light automatically turns on and when leaving it automatically turns off.
- Obstacle Avoiding Robot- A robot which can move avoiding the physical obstacles on the way.

## **EXTRACURRICULAR ACTIVITIES**

- Member of chess club CINEC (2018-2019).
- President (2018) and Vice president (2017) of youth fellowship St. John the Baptist Gampaha.
- Member of school Aeronautical Society (2013-2014).
- Member of school Chess Club, Karate team (participated for tournaments) and Environmental Conservation Circle.
- Interest in Kung Fu, Badminton, swimming and playing guitar, violin & piano.

#### NON-RELATED REFEREES

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