



### **EDUCATION**

**PROGRAM** INSTITUTE **MARKS** COMPLETION 7.05(CGPA) -BTECH **NIT CALICUT** 2021

(Electrical and electronics)

-AISSCE(XII) ST.ANTONY'S PUBLIC SCHOOL 95.6% 2017

-AISSE(X) JNV TRIVANDRUM 96% 2015

#### **WORK EXPERIENCE**

#### **ROBOTIC INTEREST GROUP** | Electronics Coordinator

- --Mentoring Electronics project and handling stock of all electronics components in mechatronics lab.
- --Mentored 2 Students in Projects
- --Taught Arduino-C++ coding to more than 400 first year students during workshop

## **AMPC-TATHVA'19** | Commitee Head

(Anand memorial project competition)

- --Lead and guided a team of First year freshers to make projects on annual Tech Fest of NIT Calicut-Tathva'19.
- --Mentored and taught about 40 students (10-Teams) on lot based projects

# **PROJECTS**

## 3 Way Adjustable Bed with Blink detection enabled control for paralyzed patients

- --A bed with actuators powering 3 way adjustment and controlling through Android app, Blink Detection and remote.
- --Applied for Patent
- --Brief documentation: https://bit.ly/34Dr7tw

## **CONTROLLING HUMANOID USING HUMAN POSE DETECTION**(Ongoing)

- --By Improvising 2D human pose detection algorithm (Tensor flow -pose estimation, alpha-pose estimation, Vnect)
- -- Using a single camera
- --Realised through Unity or Vrep simulation

#### **COMPUTER VISION ALGORITHMS INTO PYTHON CODE**

- --Concepts like Retinex Algorithm, Water shed Algorithm, Morphological Noise removal, Histogram equalisation.
- --Using OpenCV library and MatplotLib
- --Codes available in github: https://github.com/sreyasis

# **SKILLS AND TOOLS**

Programming languages: C, C++, **Python** 

Frameworks & Tools: Node.js, HTML, CSS, Bootstrap.

**IoT Platforms and** 

Microcontrollers: Arduino and Ide,

RaspberryPi, NVIDIA JETSON TX2,

NodeMCU, Wemos, PIC

Microcontroller-Assembly language,

Atmel Microcontrollers.

**Concepts:** OOPS, Data Structures, Neural Networks, Image Processing and OpenCV, Responsive Web Development with backend, Advanced lot Applications, Networking concepts.

**Electrical Engineering: Circuit** Board Designing and making, Motor And driver circuits, Buck-Boost converters.

# **CREATIVE SKILLS**

**VIDEO EDITING:** Motion Graphics Using ADOBE AFTER EFFECTS, Video Colour correction and editing using ADOBE PREMIER PRO **UI/UX/POSTER:** UI/UX Using ADOBE XD and FIGMA, Photo editing and graphics design using ADOBE PHOTOSHOP. **WRITING:** Story board writing

## **LANGUAGES**

**ENGLISH:** Working proficiency Malayalam: Full proficiency **Hindi:** Medium proficiency

# **HOBBIES**

Gaming, Badminton, Cricket, Web Design Freelancing, Video editing Freelancing, Traveling