



Mahima Varkey

Home : Thellakom P.O., Kottarathil House, 686630, Kottayam, India | Email: varkeymahima@gmail.com | Phone: (+91) 8269502080

Date of birth: 04/01/2001 | Nationality: Indian

www.linkedin.com/in/mahimavarkey/

EDUCATION

FISAT, APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY | Kochi, India

GPA: 8.49/10

Bachelor of Technology: Electrical and Electronics Engineering

June 2019 - August 2023

M.G.M. Senior Secondary School | Chhattisgarh (C.G.), India

High school: Physics, Chemistry, Maths, Computer Science, English

April 2017 - March 2019

WORK EXPERIENCE

Research Intern

September 2023 - February 2024

Robert Bosch Centre for Cyber-Physical Systems, Indian Institute of Science And Technology (IISc), Bangalore, India

SKILLS

Technologies: MATLAB, Arduino, Machine Learning, TinkerCad, PSCAD, CAD

Languages: Python, C++, C

PROJECT EXPERIENCE

Trust scoring of industrial IoT device - *collaboration with Siemens*

December 2023 - February 2024

- Worked on gathering critical trust indicators from IoT devices.
- Used Wifi module (ESP8266) to send control signals and receive interrupt data.
- Tested and validated the efficacy of the trust scoring system.

Self Balancing Cube

September 2023 - November 2023

- Worked on edge and corner balance of a cube based on the principle of Inverted Pendulum.
- Implemented PWM control using PID.
- Designed a math model of the system.

Video Processing based Vibration Analysis

October 2022 - February 2023

- Implemented phase-based video motion processing for amplifying micro-vibrations in civil structures.
- Achieved an accuracy of 98.22% on verification with a standard spring mass balance.

Voice Activity Detection using FFT

May 2022 - June 2022

- Detect human voice using Fast Fourier Transform (FFT).

Solar Power System using MATLAB

May 2022

- Built a model of a solar power system for domestic use in MATLAB.

Home Automation Using Arduino

November 2021

- Built an electronic circuit to communicate with the Blynk Home Automation system.
- Showcased the product for a 1/10 scale model using LEDs, alarm and relay.

AWARDS & ACHIEVEMENTS

- Awarded the most innovative project in ILUMINAR, the final year project expo.
- 3rd highest cumulative GPA amongst 60 students in the 2019-2023 batch of Electrical and Electronics Engineering.
- Ranked 3rd in C.G. in the 2015 International English Olympiad (IEO) by the Science Olympiad Foundation.
- Finalist (top 10) in a state-level quiz competition in 2017 in C.G.

WORKSHOPS & CERTIFICATIONS

- Add-on course on embedded controllers by NeST Cyber Campus, Kerala, India.
- Add-on course on AutoCAD by CADCENTER, Cochin, India.
- Add-on course on Revit MEP by CADCENTER, Cochin, India.

- Attended weeklong robotics workshop conducted by Alphasys 3D Printing Solutions, Bengaluru, India.
- Participated in a workshop on Automated Diagnostics and Tuning conducted by IIT BHU, Varanasi, India.
- Attended a workshop on practical approaches to robotic implementation using Tinkercad, Alphasys 3D Printing Solutions

LEADERSHIP & TEAMWORK

- Core team member of CosPhi, Electrical Engineering tech-fest conducted by FISAT
- Content and sponsorship team member of Nautilus, bi-annual tech-fest conducted by FISAT

LANGUAGES KNOWN

English (*full professional proficiency*), Hindi (*native or bilingual proficiency*), Malayalam (*native or bilingual proficiency*)

INTERESTS

- School band -vocalist and keyboardist
- Reading fiction and thriller books
- Cooking east-Asian cuisine