Bharadwaj A V K

+91 7695905818 bharadwajavkb@gmail.com Bharadwaj A V K

EDUCATION

Amrita Vishwa Vidyapeetham **2020 – 2024**
Bachelor of Technology in Electronics and Communication Engineering *Coimbatore, Tamil Nadu*

Rasi International School **2017 – 2020**
CBSE XII and CBSE X *Namakkal, Tamil Nadu*

RESEARCH EXPERIENCE

Amrita Vishwa Vidyapeetham **Coimbatore, Tamil Nadu**
Research *Oct 2023 – May 2024*

- Worked under the supervision of Dr. R Karthika in the area of image enhancement techniques. The focus was on improving the quality of images through various enhancement methods. This work aimed to achieve clearer and more visually appealing results.

Analog Electronics Laboratory in Amrita Vishwa Vidyapeetham **Coimbatore, Tamil Nadu**
Research *May 2022 – Jan 2023*

- Worked under the supervision of Prof. Sabarish Narayanan B on the characteristics and types of analog sensors. The research focused on understanding the various types of sensors and their behavior in different applications. This work aimed to enhance sensor performance and selection for various use cases.

Electronics Laboratory in Amrita Vishwa Vidyapeetham **Coimbatore, Tamil Nadu**
Research *Jun 2022 – May 2023*

- Worked under the supervision of Prof. Ganesan M on research in the domain of filters for noise reduction. The focus was on designing and implementing efficient filtering techniques to minimize signal noise. This work aimed to improve signal clarity and performance in various applications.

TECHNICAL SKILLS

Languages and Tools: Python, C, SQL, MATLAB, VHDL/Verilog
Libraries & Frameworks: LTspice, AutoCAD, ModelSim, Win spice, Proteus, Keil, MongoDB, HDFS, MapReduce, Hive, Hadoop
Certifications and Training:

- AWS Academy Graduate - AWS Academy Introduction to Cloud Semester 1
- AWS Academy Graduate - AWS Academy Introduction to Cloud Semester 2
- Build a Quiz App with HTML, CSS, and JavaScript
- Amazon Web Services (AWS) - Zero to Hero
- LTspice
- AutoCAD

PROJECTS

- **Underwater Image Enhancement** – The objective is to enhance underwater images using image enhancement techniques to improve visibility. These methods address challenges like low contrast and color distortion caused by underwater conditions. The result is a clearer, more detailed output image.
- **Coral helath Classification** – The aim is to classify coral health based on the coral images extracted from the enhanced underwater images.
- **Automatic Exhaust System** – The objective of an automatic exhaust system with MQ2 sensor is to detect smoke or gases in the air and automatically turn on the exhaust fan to remove the harmful fumes.
- **Wavelet Transform and Signal Denoising using Wavelet Method** – To decompose a signal into its frequency components and then remove the noise components, resulting in a denoised signal.
- **Automatic Braking System** – To design and simulate an automatic braking system that uses an ultrasonic sensor to detect obstacles and apply the brakes accordingly.

ACTIVITIES and ACHIEVEMENTS

- Participated in an AI-based image creation competition and won a prize.
- Scout in Bharat Scouts and Guides for 2 years.