ARYA VATS

EDUCATION

EXPERIENCE

Kalinga Institute Of Industrial Technology

Degree in Bachelor Of Technology In Electronics And Computer Science $\,$

Bhubaneshwar,India September 2022 - July 2026

CGPA: 8.54

IoT Lab | IoT developer

Bhubaneshwar,India | December 2023 - Present

- Developed an obstacle detection car using Arduino for autonomous navigation and collision avoidance.
- Created an ultrasonic radar system for real-time obstacle detection with mobile notifications.
- Designed a smart irrigation system with soil moisture sensors and WiFi connectivity for remote monitoring via ThingSpeak.
- Implemented an Arduino-based sensor system with feedback mechanisms for enhanced data accuracy.
- Engineered an automated water level indicator with integrated alerts to notify staff of critical levels; improved response time to water management issues by 30% and ensured compliance with safety regulations.
- Developed a weather station utilizing ThingSpeak for data collection and analysis.
- \bullet Organized and managed multiple large-scale events with 300+ participants each, showcasing strong event coordination skills.

SKILLS

Programming Languages: C, C++

Tools / Platforms: Git, VS Code, Operating System, DBMS, Algorithms, Discrete Mathematics,

Data Structures, AWS

Databases: SQL

PROJECTS / OPEN-SOURCE

Obstacle Detector Car | Associated With IoT Lab, KIIT

 $Arduino\ IDE\ ,\ C++$

Designed and built an autonomous obstacle detection car using an Arduino Uno, L293D motor driver, ultrasonic sensor, and Bluetooth module. Programmed the car for obstacle avoidance and remote control, and integrated hardware components including motors, wheels, and a power supply. Demonstrated skills in embedded systems, robotics, and wireless communication.

Implementing a Serverless Architecture for the Cafe website AWS Lambda, Amazon RDS, Amazon SNS, Amazon VPC

Designed and implemented a serverless architecture using AWS Lambda to generate daily sales reports for a thriving caf business.

Configured a Lambda function within a virtual private cloud (VPC) to securely connect to an Amazon RDS database and retrieve sales data.

Automated report generation and email delivery using Amazon Simple Notification Service (SNS). Set up scheduled events to trigger the Lambda function daily, optimizing performance and reducing operational costs compared to traditional EC2-based solutions.

Ultrasonic Radar With Real Time Obstacle Detector (Runner up in kiitfest, IoT event) c++

Designed an ultrasonic radar system for real-time obstacle detection using an Arduino and ultrasonic sensors. Implemented a communication module to send instant alerts and obstacle data to users' mobile devices. Demonstrated skills in real-time data processing, sensor integration, and mobile notifications.

CERTIFICATIONS

- Mastering Data Structures And Algorithms In C and C++ Udemy
- Runner-up Certificate In Kiit fest(IoT Tech Event) KIIT University.

- \bullet AWS Academy Graduate AWS Academy Cloud Architecting $\bf Amazon$ Web Services Training and Certification
- Fusing AI with VLSI chip TechBairn.
- \bullet AWS Academy Graduate AWS Academy Cloud Foundations **Amazon Web Services Training and Certification**

Honors & Awards

- Runner-up in Tech event(IoT) -> For developing Obstacle Detection and Surveillance System
- Winner In debating session organised by Khwahishein (HINDI SOCIETY OF KIIT UNIVERSITY)Hindi
- Pratibha Samman Awarded for being among the top 5 students in my school in the 10th standard.