

Jeevan Kumar

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EDUCATION

B.E IN ELECTRONICS AND COMMUNICATION

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Sahyadri College of Engineering and Management

2018 - 2022 | Karnataka, India

CGPA: 8.91/10

SKILLS

Robotics • Embedded system
Edge computing • Firmware
Control system • Computer Networks
OS • Data structures • Algorithms
IoT • Automation • Multi-threading
Linux • ROS2 • DO-178B/C
FMS • ARINC protocols • OOP
Design patterns • Computer Vision
C • C++ • Python • Ada • Shell
Matlab • UAV • Problem solving

AWARDS

Smart India Hackathon

Govt. of India, 1st Place - 2020

India International Science Festival

Govt. of India, 2nd Place - 2021

NXP Hovergames 2

Bonus Prize Winner - 2021

DBIT TechExpo 2021

1st Place - 2021

IEEE BMS, IEEE BIT

1st Place - 2021

PUBLICATION

Conference paper on

Design and Development of Autonomous VTOL for Medicine Deliveries in Hilly Areas

Conference paper on

Implementation and Design of Agile and Multipurpose Autonomous Robot Using ROS

COURSES

Self-Driving Car Engineer

Nanodegree, Udacity

EXPERIENCE

THALES | SOFTWARE REAL-TIME EMBEDDED ENGINEER

Aug 2022 - Present | Bangalore, India

- Developing next generation FMS (Flight Management System) Pureflyt, for Airbus A320 and A330 aircraft.
- Focused on logical components such as Flight planning, Datalink, Connectivity and HMI (Human Machine Interface)
- Technical referent for improving the team competency in Software Design
- Won quarterly award under 'Make it happen' category for valuable contribution towards the FMS project

UNBOX ROBOTICS | ROBOTICS SOFTWARE INTERN

Aug 2021 - Nov 2021 | Pune, India

- Responsible for developing and improvising the software of sorting robots
- Automated repetitive tasks involved in development and testing cycle using shell scripting in Linux.
- Designed and developed error logging library in both C++ and Python which increased the efficiency of team while troubleshooting and debugging by 20%.
- Provided features like file-rollover, thread-safety, and faster execution.

CSD LAB, NIT-K | RESEARCH AND DEVELOPMENT INTERN

Jan 2021 - Apr 2021 | Karnataka, India

- Worked on designing Ground-Station software for tracking the location of UAV and retrieving essential data like battery percentage, sensor readings, system errors.
- Integrated 2D LiDAR sensor onboard the UAV for avoiding obstacles while traversing thereby decreasing the collision rate.

PROJECTS

HYBRID VTOL FOR MEDICAL DELIVERY IN HILLY AREAS | C++, PYTHON, OPENCV, PIXHAWK, PX4

- Developed perception and navigation software for VTOL with safe landing features, successfully demonstrating a working prototype.
- This approach enables the rapid delivery of essential medicines to hilly regions, significantly reducing transit time compared to traditional methods.

AGILE AND MULTIPURPOSE AUTONOMOUS ROBOT | C++, LINUX, SHELL, ROS, SLAM, GAZEBO

- Implemented autonomous navigation in indoor environments with obstacle avoidance for contactless operations during pandemic.
- Simulated robot operations in Gazebo, reducing real-world prototyping efforts.

EXTRA-CURRICULAR

Robotics Lead, Team Challengers

Mentored over 20 students in robotics, embedded systems, and UAV.

Lead Coordinator, ISRO Hackathon - Aerophilia

Managed 100+ participants along with 6 experts on a 36 hour hackathon.