

Akszayan VL

ROBOTICS • EMBEDDED SYSTEMS • APPLIED AI

Tiruchirappalli, Tamil Nadu, India

krishnakanthakszayan@gmail.com

+91-6380035064

GitHub: github.com/Akszayan

LinkedIn: linkedin.com/in/akszayan-v-l



SUMMARY

Engineering student focused on building end-to-end robotic and AI-driven systems, with hands-on experience across embedded devices, computer vision pipelines, and backend services. Interested in translating experimental prototypes into reliable, deployable systems for real-world use.

EDUCATION

Bachelor of Technology (Mechanical Engineering)
SASTRA Deemed University
2024 – 2028

COMPETITIONS & HACKATHONS

Daksh 2025 (SASTRA University) – Won in AI and STEM tracks including AI for SDG and AI for Arts, developing applied AI and robotics prototypes.

Smart India Hackathon (SIH) 2025 – Selected in internal university rounds for a public-safety-oriented technology solution.

National Geo-AI Hackathon IITB 2025 – Worked on drone imagery-based geospatial feature extraction using deep learning and GIS workflows.

Robotics Competitions – RoboSoccer, Robo Sumo, Line Follower, and related autonomous and control-based events.

ACTIVITIES & CLUBS

Entrepreneurship Cell, SASTRA University

- Involved in technical outreach, event coordination, interaction with startup and industry participants.

Robotics Club, SASTRA University

- Hands-on robotics projects and technical demonstrations

Aeromodelling Club, SASTRA University

- Design-oriented activities related to aerial systems

PROJECTS

Face-Following Drone

Developed an autonomous drone with real-time face tracking, enabling intuitive human-drone interaction.

AR-Based Virtual Steering Car

Built a gesture-controlled robotic vehicle that uses computer vision-based hand tracking to enable contactless, intuitive steering control.

Autonomous Quadruped Rover (In Progress)

Designing an autonomous quadruped robotic platform focused on adaptive locomotion, terrain handling, and intelligent navigation strategies.

Hybrid Rover-Drone System (In Progress)

Developing a hybrid robotic system combining ground mobility and aerial capability to support multi-terrain exploration and deployment scenarios.

CURRENT AREAS OF EXPLORATION

- Internet of Robotic Things (IoRT)
- Autonomous robotic systems and control
- ROS 2-based simulation and system integration
- UAV navigation and aerial autonomy
- Uncrewed Underwater Vehicles (UUVs) and marine robotics
- Vision-guided navigation and perception
- Edge AI for safety-critical and defense-oriented systems

TECHNICAL SKILLS

Programming Languages

Python, C++, C#, JavaScript, Dart

Robotics & Embedded Systems

Arduino, ESP32, Raspberry Pi, ROS 2 (Humble)

AI & Computer Vision

OpenCV (cv2), MediaPipe, TensorFlow, PyTorch

Backend & Web Technologies

FastAPI, Django, REST APIs, WebSockets, MySQL, HTML, CSS, Next.js