Vivek Kamble

 UK (Open For Relocation)   ✉ vivekkamble1912@gmail.com   🔗 vivekkamble.com   📞 +44 7407 853032

in in/kamblevivek

ABOUT ME

Robotics and Automation Engineer with Master's degree from the University of Sheffield and hands-on experience in industrial automation, PLC programming, and robotic systems integration. Proven ability to design, commission, and troubleshoot automated systems through practical experience in control systems, SCADA, and ROS-based robotics. Seeking to apply technical expertise in hardware integration and automation engineering within advanced manufacturing and robotics sectors.

EDUCATION

The University of Sheffield   *Sheffield, GB*
Master of Science in Robotics   *2023 - 2024*
Automation Control and System Engineering

Shri Vaishnav Institute of Technology and Science   *Indore, India*
Bachelor of Technology in Mechatronics   *2018 - 2022*
Department of Electrical and Electronics Engineering

Technical Competencies

Industrial Automation & Control Systems: PLC Programming (training and academic projects), SCADA Systems, HMI Development, Industrial Control Systems, System Commissioning, Troubleshooting & Diagnostics

Robotics & Control Engineering: ROS/ROS 2, SLAM Implementation, Path Planning, Sensor Fusion, Control Systems Design, Kinematics & Dynamics, Motion Planning

Programming & Embedded Systems: C/C++, Python, Arduino IDE, Embedded Systems Programming, Microcontroller Programming

CAD & Simulation: Fusion 360, MATLAB/Simulink

Hardware & Electronics: Circuit design, PCB design, soldering, sensor/actuator integration, prototype testing.

EXPERIENCE

Trainee Engineer ↗   *Indore, India*
Indo-German Tool Room   *Dec 2022 – Aug 2023*

- Developed and delivered comprehensive technical training programs covering industrial automation, robotics, PLC & SCADA systems, and control theory across 50+ sessions, preparing participants for roles in advanced manufacturing and automation industries.
- Designed and conducted practical assessments to evaluate competency in PLC programming, control systems, and robotics fundamentals across 200+ participants.
- Authored 20+ technical training resources including practical lab exercises, troubleshooting guides, and assessment frameworks for PLC programming and industrial control systems.

Automation Intern ↗   *Indore, India*
TechMission   *Jan 2022 – April 2022*

- Completed intensive industrial automation training program, gaining hands-on experience with PLC programming, HMI development, and SCADA system configuration across three operational automation cells.
- Commissioned and troubleshot PLC-based control systems across three automation setups, developing diagnostic skills in system integration, sensor calibration, and fault resolution.

PROJECTS

Agitation System for 2D and 3D Self-Assembly ↗
University of Sheffield

Sheffield, GB
Mar 2024 - Feb 2025

- Designed and implemented automated agitation platform for robotic module integration research that targets improved stability during robotic module integration processes; monitored real-time feedback from tests involving 30 independent runs contributing valuable insights into future designs.
- Conducted experiments comparing 2D vs. 3D assembly, optimizing control systems with Arduino for efficient performance.
- Demonstrated that 2D assemblies are faster and stable under varied conditions, with additional results expected from ongoing research.

Autonomous Exploration & SLAM using ROS
University of Sheffield

Sheffield, GB
Feb 2024 - April 2024

- Developed a TurtleBot system in ROS that used LiDAR for autonomous arena exploration, achieving real-time SLAM and mapping 9+ target blocks (exceeding requirements). Implemented sensor fusion, occupancy grid mapping, and path planning to optimize coverage efficiency.
- Collaborated in a team of 4 to debug navigation logic and validate performance, ensuring robust operation under time constraints.

Autonomous Robot for Complex Manipulation and Navigation Tasks ↗
University of Sheffield

Sheffield, England
Oct 2023

- Collaborated with a team of 4 to design and build an autonomous robot for manipulation and navigation tasks in a controlled arena.
- Led the design and integration of control systems in an autonomous robot, achieving precise navigation to draw tasks within a controlled environment; increased task execution speed by 30% during testing phases.

Smart Helmet for Rider Safety ↗
SVITS

Indore, India
Aug 2021 - Dec 2021

- Developed IoT-enabled safety device integrating alcohol detection sensor (MQ-3), drowsiness detection system, and automated ignition control mechanism
- Designed embedded system using Arduino, combining multiple sensor inputs with relay-based actuator control for automated safety intervention
- Built and tested functional prototype demonstrating reliable alcohol detection and automated ignition lockout under unsafe conditions

ADDITIONAL SKILLS

Languages	English (Fluent), Hindi (Native), German (Beginner)
Professional	Technical Training & Instruction, Cross-functional Team Collaboration, Technical Documentation, Problem Solving

PROFESSIONAL DEVELOPMENT

- **Industrial Automation Training - PLC Programming, HMI & SCADA Systems, TechMission, 2022** ↗