# AlfaisalX

Alfaisal Center for Robotics and Autonomous Agents

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## Research Engineer in Robotics

🏢 Robotics Lab    |    📍 Riyadh, Saudi Arabia

💼 Full-Time Research Position

## About AlfaisalX

**AlfaisalX** (Alfaisal Center for Robotics and Autonomous Agents) is a newly established **Center of Excellence** at Alfaisal University, dedicated to advancing the frontiers of cognitive robotics, autonomous systems, and artificial intelligence. Our mission is to drive innovation, develop cutting-edge technologies, and cultivate the next generation of AI and robotics leaders in alignment with **Saudi Vision 2030**.

**Alfaisal University**, located in Riyadh, is one of the leading private research universities in the Middle East. The **College of Engineering** houses state-of-the-art laboratories and research facilities, offering an exceptional environment for groundbreaking research. Our faculty includes internationally recognized experts who have published extensively in top-tier venues.

**Our Research Focus Areas:**

- Agentic AI & Large Language Models for Business Automation
- Robotics, UAVs & Autonomous Ground/Aerial Systems
- Medical & Health Robotics (Surgery, Rehabilitation, Medical Imaging)
- Cloud Robotics & Multi-Robot Systems

## About the Position

We are seeking a highly skilled and motivated **Research Engineer** to join our dynamic robotics team at AlfaisalX. This is an exceptional opportunity for a passionate roboticist to work on cutting-edge projects that will shape the future of autonomous systems in Saudi Arabia and beyond.

The ideal candidate will have proven hands-on experience with ROS/ROS 2, Gazebo simulation, and integration of robotic systems including UAVs, ground robots, and mobile platforms. You will work alongside world-class researchers, collaborate with industry partners such as **HUMAIN**, **Bako Motors**, and **Tawuniya**, and contribute to projects that have real-world impact.

As a Research Engineer, you will be at the forefront of developing next-generation robotic solutions, from autonomous navigation systems to intelligent drone fleets. You will have access

to state-of-the-art equipment including high-end UAV platforms, mobile robots, motion capture systems, and powerful GPU workstations for deep learning.

This role offers significant growth opportunities, including the possibility of pursuing a Ph.D. for exceptional candidates and co-authoring publications in top robotics venues such as ICRA, IROS, and RA-L.

## Key Responsibilities

🤖 Design, develop, and integrate robotic systems using ROS/ROS 2

🗺 Implement SLAM algorithms for autonomous navigation

🤖 Develop and test UAV and ground robot control systems

🎛 Integrate sensors, actuators, and computing platforms

👥 Collaborate with research teams on cutting-edge robotics projects

📄 Document technical specifications and research findings

⚗ Support real-world deployment and field testing

## Required Qualifications

- Bachelor's or Master's degree in Electrical Engineering, Robotics, Mechatronics, Computer Engineering, or Computer Science

- **3+ years** hands-on experience with ROS/ROS 2

- Proficiency in **C++ and Python** for robotics applications

- Experience with Gazebo or similar robotics simulators

- Strong background in **SLAM, path planning, and localization**

- Experience with UAVs, mobile robots, or manipulators

- Excellent problem-solving and debugging skills

## Preferred Qualifications

- Experience with real-time systems and embedded platforms

- Knowledge of computer vision and sensor fusion

- Publications in top robotics venues (ICRA, IROS, RA-L)

- Experience with PX4, ArduPilot, or similar autopilots

- Familiarity with Docker, CI/CD for robotics

## What We Offer

- 📷 Competitive salary commensurate with experience
- 🏢 State-of-the-art research facilities and equipment
- 🌐 Collaborative international research environment
- 🚀 Opportunity to work on cutting-edge robotics projects
- 🎓 Professional development and training opportunities
- 🤝 Industry collaboration with leading tech companies
- ✈ Conference travel support for publications

## How to Apply

Interested candidates should submit the following documents to **alfaisalx@alfaisal.edu**:

1. Updated CV/Resume highlighting relevant experience
2. Cover letter explaining your interest and qualifications
3. Links to relevant projects, GitHub repositories, or publications
4. Contact information for 2-3 professional references

**Apply Now**

✉ alfaisalx@alfaisal.edu

Subject: Application – Research Engineer in Robotics

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