

# AlfaisalX

Alfaisal Center for Robotics and Autonomous Agents

## Postdoctoral Researcher

### Robotics & Autonomous Systems

 Autonomous Systems Lab |  Riyadh, Saudi Arabia

 Postdoctoral Fellowship

## 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, known for its strong emphasis on research excellence and industry partnerships. The **College of Engineering** houses state-of-the-art laboratories, including dedicated robotics labs, UAV testing facilities, and high-performance computing infrastructure.

### 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

**Industry Partners:** HUMAIN, Bako Motors, Tawuniya, Prince Sultan Defense Studies & Research Center

## About the Position

AlfaisalX invites applications for a prestigious **Postdoctoral Researcher** position in Robotics and Autonomous Systems. This is an exceptional opportunity for an ambitious early-career researcher to establish themselves as a leader in the rapidly evolving field of autonomous robotics.

The successful candidate will conduct cutting-edge research in one or more of our strategic focus areas: **medical robotics**, **self-driving vehicles**, **UAV systems**, and **reinforcement learning-based control**. You will have the freedom to pursue innovative research directions while contributing to the center's mission of developing transformative technologies.

As a Postdoctoral Researcher at AlfaisalX, you will work in a collaborative, interdisciplinary environment alongside world-renowned faculty members who have published extensively in top-tier venues such as ICRA, IROS, RA-L, and CoRL. You will have access to cutting-edge equipment including autonomous vehicle platforms, surgical robot simulators, UAV fleets, and high-performance GPU clusters for deep learning research.

This fellowship offers exceptional benefits including a competitive salary, generous research funding, international conference travel support, and a **clear pathway to a faculty position** for outstanding candidates. You will also have opportunities to collaborate with our industry partners on applied research projects with real-world impact.

We are particularly interested in candidates who can bridge theoretical advances with practical implementations and who are passionate about mentoring the next generation of robotics researchers.

### Research Focus Areas

 Medical Robotics     Self-Driving Vehicles    UAV Systems     Reinforcement Learning

## Key Responsibilities

-  Conduct independent and collaborative research in autonomous systems
-  Develop novel algorithms for medical robotics and surgical systems
-  Design and implement autonomous navigation for self-driving vehicles
-  Apply reinforcement learning to robotic control problems
-  Publish research findings in top-tier venues (ICRA, IROS, RA-L, CoRL)
-  Mentor graduate students and research assistants
-  Contribute to grant proposals and funding applications

## Required Qualifications

- **Ph.D. in Robotics, Autonomous Systems, Computer Science, or related field**
- Strong publication record in top venues (**ICRA, IROS, RA-L, CoRL, RSS**)
- Demonstrated experience with autonomous navigation and perception
- Proficiency in Python, C++, and deep learning frameworks (PyTorch/TensorFlow)
- Background in reinforcement learning for robotics
- Excellent written and verbal communication skills
- Ability to work independently and collaboratively

## Preferred Qualifications

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- Experience with medical robotics or surgical systems
- Background in self-driving car technologies (CARLA, LGSVL, Autoware)
- Knowledge of real-time control systems and embedded platforms
- Experience with sim-to-real transfer and domain adaptation
- Track record of successful industry collaborations
- Experience supervising students or junior researchers

## What We Offer

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- ⌚ Competitive postdoctoral salary (tax-free in Saudi Arabia)
- 💸 Generous research budget and travel support
- 🏢 Access to world-class robotics facilities and equipment
- 💡 Opportunity to lead independent research projects
- ⭐ Clear pathway to faculty position for exceptional candidates
- ✈ International conference travel fully supported
- 🏡 Housing allowance and relocation support

## How to Apply

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Interested candidates should submit the following documents to [alfaisalx@alfaisal.edu](mailto:alfaisalx@alfaisal.edu):

1. Updated CV with complete publication list and Google Scholar link
2. Research statement (2-3 pages) outlining past work and future research vision
3. Cover letter explaining your interest in the position and fit with AlfaisalX
4. Three representative publications (preferably first-author)
5. Contact information for 3 academic references

[Apply Now](#)

✉ [alfaisalx@alfaisal.edu](mailto:alfaisalx@alfaisal.edu)

Subject: Application – Postdoc in Robotics & Autonomous Systems

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AlfaisalX is an equal opportunity employer. We celebrate diversity and are committed to creating an inclusive environment for all employees.

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