

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

- 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

-  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

Interested candidates should submit the following documents to 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

Subject: Application – Postdoc in Robotics & Autonomous Systems

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

 alfaisalx.alfaisal.edu |  Alfaisal University, Riyadh, KSA