



BSc in

## ROBOTICS AND AI

### About the program

This interdisciplinary undergraduate program equips students with the knowledge and skills required to design, develop, and implement robotic systems and AI technologies. It consists of a comprehensive and diverse curriculum that provides the necessary knowledge, professional skills, and competencies needed for graduates in the field of Robotics. The program also combines theoretical knowledge with practical skills, preparing graduates to be at the forefront of technological innovation with robotics and autonomous systems.

Through advanced skills in engineering, science, AI, robotics, and mathematics, students will aim to solve real-world problems and learn to use engineering tools to develop solutions that consider public health, safety, welfare, and global, cultural, social, environmental, and economic factors. Graduates will create prototypes using robotic and AI technologies, emphasizing sustainability, innovation, and entrepreneurship. They will gain the ability to model new robotic and AI applications, apply effective learning strategies, and communicate solutions and outcomes clearly both in writing and orally. The course also focuses on assessing ethical and professional responsibilities and making well-informed recommendations. Additionally, students will develop teamwork skills to foster a collaborative environment, set objectives, and formulate work plans in professional settings.

The program aims to prepare graduates for a wide range of careers and to supply the society with highly skilled, scientifically trained professionals in the field of Robotics and Artificial Intelligence, who can contribute to 'powering and driving' the UAE's knowledge-based economy.

B.Sc. in Robotics and AI provides a comprehensive education that combines theoretical knowledge with practical skills, preparing graduates to be at the forefront of technological innovation with robotics and autonomous systems.

### Graduates of the program will

Find careers as: Robotics Engineers to design and develop robotic systems for different applications.

- **AI Specialist:** Developing AI algorithms and systems for data analysis, automation, and more.
- **Software Developer:** Creating software solutions for robotics and AI applications.
- **Researcher:** Engaging in advanced research in robotics and AI, often leading to further academic pursuits such as a master's or Ph.D.

Explore emerging professional trends such as:

- **Autonomous Vehicles:** Understanding the AI and robotic principles behind self-driving cars.
- **Human-Robot Interaction:** Developing systems that improve how robots interact with humans.
- **Healthcare Robotics:** Designing robots for surgical assistance, rehabilitation, and elderly care.

### Labs

Robotics Teaching Labs, with state-of-the-art robotics platforms:

- Robot Navigation and Control Lab
- Robot Sensing and Perception Lab
- Robot Systems Lab

They are equipped with various robot hardware platforms, sensors, PCs, micro-controllers, and software.



# WHY KHALIFA UNIVERSITY?



## GLOBAL RECOGNITION

Khalifa University stands out as the leading institution in the UAE, with 90 of its faculty members acknowledged among the world's top 2% most-cited scientists in Stanford University's prestigious 2023 listing.



## CONSISTENTLY HIGH-RANKED

Ranked top in the UAE, 2nd in the Arab world, and ranked 27th in Asia in Sustainability; and among top 250 in the world



## GLOBALLY-ACCREDITED ACADEMIC PROGRAMS

Khalifa University is fully licensed and all its programs are accredited by the Commission for Academic Accreditation (CAA) of the UAE Ministry of Education.



## EXPERT GUIDANCE

We are committed to empowering students for success, fostering collaboration in a diverse community led by world-class faculty. Experience personalized guidance and a conducive learning environment with an impressive 11:6 student-to-faculty ratio, ensuring your path to success is well-supported and rewarding.



## UNIQUE AND DIVERSE RESEARCH

Including energy, water and environment, healthcare, aerospace, cybersecurity, Intelligent Systems, advanced materials, and fundamental science.



## DYNAMIC CAREER OPPORTUNITIES

Attractive graduate employment opportunities across a wide spectrum of industries with the opportunity to present research projects at major international conferences.



## WORLD'S SAFEST CITY

Abu Dhabi, the largest emirate in the UAE, remains the world's safest city for the 8th consecutive year in 2024. Experience safety and a cosmopolitan lifestyle that enhances your learning experience, reinforcing its status as a safe and secure place to live, work, study, and invest.