



Czech Institute of Informatics, Robotics, and Cybernetics Czech Technical University in Prague

Position ID: Tenure-track faculty at CIIRC

Position Title: Tenure-track Faculty Position in Bioinformatics and Artificial Intelligence

Position Location: Prague, Czech Republic

Bioinformatics, Machine learning, Artificial Intelligence

Salary Scale: 3000 - 4000 EUR (75000 -100000 CZK) gross per month

Bonuses: 8 weeks of vacation, flexible work schedule

Starting Date: 1.11.2025 or later

Appl. Deadline: 30.9.2025

The Czech Institute of Informatics, Robotics, and Cybernetics (<u>CIIRC</u>) at the Czech Technical University in Prague is seeking applications for a tenure-track faculty position—at the rank of Assistant or Associate Professor—in the fields of **Computational Biomedicine**, **Neuroinformatics**, and **Artificial Intelligence**. The position is established and cofunded by the EU Center of Excellence <u>CLARA</u> - Center for Artificial Intelligence and Quantum Computing in System Brain Research, with a specific focus on the application of AI and bioinformatics to **neurodegenerative diseases**, particularly **Alzheimer's disease**.

Job Description

Candidates should already be recognized—or demonstrate clear potential to become recognized—as leaders in their respective research fields, with the ability to establish independent research groups at CIIRC and to complement and enhance the institute's existing research programs.

We expect the successful candidate to apply expertise in **bioinformatics**, **machine learning**, **and computational modelling** to address key challenges in brain health and neurodegeneration research. This includes:

- Multimodal data integration and analysis: Designing and implementing advanced computational methods for integrating and analyzing large-scale biological, clinical, and neuroimaging data.
- **Predictive modelling and biomarker discovery:** Developing predictive models for disease progression and identifying new biomarkers for neurodegenerative diseases like Alzheimer's.
- **Neuroimaging analysis:** Applying AI and machine learning to analyze brain imaging data (e.g., MRI) to detect subtle disease-related changes.
- **Human-machine interaction and assistive technologies:** Contributing to the development of assistive technologies and brain-computer interfaces within the context of the CLARA project.

We expect the successful candidate to:

- Conduct, lead, and supervise high-quality academic research in one of the specified subject areas;
- Design and deliver graduate-level courses, inspiring students through teaching and postgraduate supervision;
- Secure external research funding and foster collaborations with academic and industry partners;
- Make a positive and inspiring contribution to our academic community.

The <u>Tenure Track system at CIIRC</u> provides promising early-career academics with a clear, structured, and attractive pathway toward a permanent faculty appointment.





Requirements

Applicants should meet the following qualifications:

- PhD in Computer Science, Artificial Intelligence, Applied Mathematics, Systems and Control, Mechanical/Electrical Engineering, Bioinformatics, Biocybernetics, or a related discipline.
- Minimum of one year of experience as a postdoctoral researcher, Assistant Professor, or equivalent, including experience gained outside the Czech Republic.
- Proven excellence in scientific research, demonstrated by publications in international, peer-reviewed conferences and/or journals, particularly with a focus on **neurodegeneration research or computational biomedicine**.
- Strong motivation to pursue and implement an independent research vision within CIIRC's environment.
- Collaborative mindset with excellent communication skills and an eagerness to identify and leverage synergies within CIIRC and its network.
- Experience in securing external funding is desirable. The position covers 50% of the salary for the 5-year tenure track period. The candidate is expected to raise research funding to cover the remaining 50%.

Research Environment

The Czech Technical University in Prague (CTU) represents the foremost technical university in the Czech Republic. The Czech Institute of Informatics, Robotics, and Cybernetics (CIIRC, established in 2013 and financed with EUR 138 mil. from ESIF and national sources) is a modern research institute at CTU that concentrates on cutting-edge research in the fields of computer science, robotics, cybernetics, AI and related areas (bioinformatics, assistive technologies, computational biomedicine, neuroinformatics, etc.). Currently, the institute has 8 research departments complemented by specialized centers such as Testbed for Industry 4.0, RICAIP Centre - Research and Innovation Centre on Advanced Industrial Production (www.ricaip.eu), National Centre for Industry 4.0 (NCI4.0) and Centre of City of the Future (CCF).

The Institute is involved in the most prominent European networks on AI (such as <u>CAIRNE</u> and <u>ELLIS</u> initiatives, and H2020/HE projects <u>TAILOR</u>, <u>VISION</u>, <u>ELISE</u> and <u>ELIAS</u>) and is a home institute of outstanding researchers, (alphabetically): <u>R. Babuska</u> (robotics), <u>Z. Hanzalek</u> (scheduling and optimization), <u>V. Hlavac</u> (vision, robotics), <u>V. Kucera</u> (systems and control), <u>L. Lhotska</u> (AI, biomedical engineering, human-machine interaction), <u>T. Pajdla</u> (vision, robotics, geometry), <u>J. Sedivy</u> (NLP, learning), <u>J. Sivic</u> (vision, learning, robotics, AI for science), <u>O. Stepankova</u> (biomedical engineering), <u>J. Urban</u> (AI, reasoning). The research groups are international and English is the official language at CIIRC. Foreign researchers, postdocs, graduate students, and interns at CIIRC represent a diverse international community, coming from countries including the USA, France, Japan, the Netherlands, and others.

CIIRC is situated in a <u>modern building</u> opened in 2017, located near Prague Castle and the city center, with easy access to Prague Václav Havel Airport. The institute is equipped with large computational infrastructure, robots, an industrial testbed, and other state-of-the-art research facilities.

<u>Prague</u> is the capital of the Czech Republic, considered one of the most beautiful cities in the world, and attracts millions of tourists every year. It has the highest Quality of Living Worldwide ranking among Eastern European cities and over 160,000 foreign residents. It boasts a rich history and culture, a long tradition of university education and scientific research, and a dynamic economy. The cost of living in Prague is approximately half that of Amsterdam, Paris, or New York. According to the 2023 Global Peace Index, the Czech Republic ranks as the 12th most peaceful and safe country in the world.





CLARA

The position is established and co-funded by the EU Horizon project <u>CLARA</u> – the Center for Artificial Intelligence and Quantum Computing in System Brain Research, no. 101136607. CLARA represents the first interdisciplinary Centre of Excellence in Central and Eastern Europe, focusing on the next generation of artificial intelligence/machine learning (AI/ML) applications and quantum-accelerated supercomputing tools to address the etiology of neurodegenerative diseases. CLARA aims to discover new possibilities for treating and preventing neurodegenerative diseases while contributing to the solutions of global challenges faced by Europe. The Centre will become a driver of innovation with a broad societal and economic impact. The research conducted at CLARA will be crucial for developing innovative treatment methods and procedures that enhance the quality of life for millions of people worldwide.

As a core Czech partner in CLARA, CIIRC is helping build the CLARA Testbed—a cutting-edge distributed computing and data platform—and upgrading its AI research infrastructure for brain science, including assistive technology labs and neural modelling facilities. Thanks to CLARA, CIIRC will broaden its scope in the development of AI/ML for quantum molecular simulations and protein dynamics. The tenure-track positions are projected to strengthen support for excellent foundational research at CIIRC, particularly in these areas.

Conditions of permanent employment

The tenure-track position is offered for a five-year term. The position covers 50% of the salary for the 5-year tenure track period. The candidate is expected to raise research funding to cover the remaining 50%. Progress will be evaluated against agreed performance indicators, with a tenure review in the fifth year to determine eligibility for a permanent faculty position. The tenure review follows a procedure given by the <u>Tenure Track policy of CLARA</u> aligned with the <u>Tenure Track policy of CIRC</u>. A mid-term evaluation will take place no later than the third year, and in exceptional cases, the tenure process may be accelerated. During the tenure-track period, candidates will be assessed against the following high-level performance indicators:

- Attainment of the CIIRC Senior Researcher qualification or higher (Career Rules CIIRC)
- Achievement of an associate professor title or higher
- Submission of an ERC Grant proposal with an A or B evaluation score, or obtaining another prestigious personal research grant
- Establishment of an independent research group

Information and application

To apply, please send an application with the subject line "CLARA Tenure-Track Faculty at CIIRC" to Eva Troppová at *eva.troppova@cvut.cz*. Your application should include:

- A detailed CV
- A motivation letter
- A description of your research plans and teaching experience
- Electronic copies of your top three publications
- Contact details for at least three references

Data Sharing Consent

By submitting your application, you agree that your personal data, CV, and supporting documents can be shared with CLARA partners for evaluation. If the primary partner does not proceed with your application, other partners may still contact you about potential opportunities. Your personal data will be handled in accordance with the GDPR, and you can request access, correction, or deletion at any time by contacting eva.troppova@cvut.cz.