



The Cyborg Robotics and Intelligent Sensing (CyRIS) Group at the Max Planck Institute for Intelligent Systems (<https://is.mpg.de/cyris/en>) invites applications for a PhD position focused on developing biohybrid control architectures that integrate biological neural activity with robotic systems.

We offer a

Ph.D. Student Position (m/f/div)
Neural Interfaces and Adaptive Sensing

Roles & Responsibilities

The PhD project focuses on developing closed-loop control architectures where neural interfaces are used to drive and adapt robotic behavior. This project aims to establish robust organoid–machine interfaces, including neural signal acquisition and real-time decoding. These intelligent interfaces will be combined with bioengineered muscle actuators, enabling biohybrid systems that integrate sensing, computation, and movement.

The position offers a unique opportunity to explore emerging directions in organoid intelligence, adaptive control, and biohybrid robotics, with a structured progression from foundational experiments to high-impact demonstrators.

Education & Experience

Candidates should have a strong background in one or more of the following areas:

- Neural engineering or electrophysiology
- Computational neuroscience with a focus on machine learning
- Biofabrication or tissue engineering

Experience with microfluidics, organoid culture, or real-time control is beneficial but not required.

Applicants should have:

- Master's degree in biomedical engineering, neural engineering, computational neuroscience, bioengineering, or a related field
- Strong communication skills in English (written and spoken)
- Prior research experience demonstrated through a thesis, research project, or equivalent
- Experience with academic writing or research dissemination (e.g. thesis, reports, manuscripts)
- Interest in collaborative research
- Motivation to work in an interdisciplinary environment at the interface of biology, engineering, and computation, and be willing to develop new experimental and computational skills over the course of the PhD)

Our offer

The CyRIS Group, part of the Max Planck Institute for Intelligent Systems, works at the interface of biology and robotics. We offer an international, collaborative, and curiosity-driven research environment with access to cutting-edge infrastructure, including advanced fabrication and testing equipment. The position provides extensive mentoring, supervision, and career-planning support, along with opportunities for collaboration with world-leading research groups, networking through conferences, seminars, and research visits, and a fully funded, competitive salary.

Application

Please upload your application files including:

- a CV / resumé in English
- a cover letter in English
- academic transcripts from your current or most recent degree program
- contact information for two to three academic or professional references

via our [application portal](#).

For further questions please contact Dr. Antonia Georgopoulou: ageorgopoulou@is.mpg.de.

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. The Max Planck Society strives for gender equality and diversity. Furthermore, the Max Planck Society seeks to increase the number of women in its workforce in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Closing date for applications

February 28th 2026

