

## Research Associate Positions

**Category:** An initial one-year employment contract will be offered with the possibility for renewal depending on performance and project needs.

**Location:** CYENS – Centre of Excellence Nicosia, Cyprus

**Preferred Start Date:** upon availability of successful candidate

**Application Deadline:** Remain open until the positions are filled

**CYENS** Centre of Excellence (formerly known as RISE) is the Research and Innovation Centre on Interactive media, Smart systems and Emerging technologies empowering knowledge and technology transfer in the region. CYENS CoE is supported by the European Commission, the Republic of Cyprus and its founding Partners, the Municipality of Nicosia, the Max Planck Institute for Informatics (MPI), University College London, the University of Cyprus, the Cyprus University of Technology and the Open University of Cyprus.

The Centre conducts excellent, internationally competitive scientific research in the areas of visual sciences, human factors and design, communication, and artificial intelligence delivered by high-calibre multidisciplinary research teams. CYENS engages in knowledge transfer and innovation activities aiming to bridge the gap between scientific research and STEM-led innovation and entrepreneurship.

CYENS, as a Centre of Excellence, cultivates a culture of innovation and creativity in an inspiring environment filled with academics, researchers, creative and onward-looking people, innovators, entrepreneurs, and practitioners. The Centre operates under the moto “Inspired by Humans Designed for Humans” with the vision to produce world class research that drives innovation towards social and economic benefit while conducting excellent, internationally competitive scientific research in the areas of visual sciences, human factors and design, communication, and artificial intelligence. It sets out to meet the challenge with a total potential funding of more than 30 million Euros for the first 7 years, from a Horizon 2020 Teaming Action and multiple other sources, and a business plan for long-term sustainability and growth.

The Centre is seeking to recruit **Research Associates (full time or part time)** for each of the below Multidisciplinary Groups (MRG). There is a link available for the specific qualifications and requirements for each group.

The successful candidates will have the opportunity to conduct fundamental and/or applied research in the aforementioned areas. Where applicable, candidates may also participate in the preparation of project reports and deliverables, research proposals for funding, software development, and travel abroad for dissemination activities. Furthermore, successful candidates will be encouraged to publish/present their research results in prestigious international conferences and journals.

## Multidisciplinary Research Groups:

### **Cognitive and Clinical Applications ([CCAPPS](#))**

Research focuses on the development and validation of Virtual Reality and mobile applications for cognitive training and clinical interventions. [Specific-Qualifications-and-Requirements-for-the-CCAPS-Research-Group](#)

### **Learning Agents and Robots ([LEAR](#))**

The LEAR Group conducts research on artificial intelligence and its intersection with robotics, focusing on creating software agents and robots that learn to predict and understand the world, solve tasks, accumulate skills, interact with humans or other agents, and make adaptive decisions in complex, dynamic and uncertain environments. To achieve these goals, the group investigates approaches from machine learning (e.g., deep reinforcement learning), evolutionary computation (e.g., quality-diversity optimization), robotic perception, control and simulation, among others.

The newly established robotics lab is currently populated with a Unitree A1 quadruped robot and 4 Parrot Anafi drones. [Specific-Qualifications-and-Requirements-for-the-LEAR-Research-Group](#)

### **[DeepCamera](#): The Next Generation of Smart Cameras**

Research focuses on developing and seamlessly integrating a robust and reliable level of deep-learning approach (e.g., intelligence), into existing camera hardware (e.g., high-end/low-end sensors to create what we can call a smarter-camera system) that will provide robust and reliable data acquisition, storage, manipulation/feature extraction, computer vision task-driven decisions, and visualization of acquired input camera data, thereby overcoming the limitations of existing imaging/video pipeline solutions. [Specific-Qualifications-and-Requirements-for-the-DeepCamera-Research-Group](#).

### **Socially-Competent Robotic and Agent Technologies ([SCRAT](#))**

Research focuses on machine learning, computational learning theory, natural language processing and generation, preference elicitation, symbolic knowledge representation, commonsense reasoning, formal argumentation, cognitive computing, and explainable AI. Work will be undertaken towards the development of cognitive assistants for human task-solving, and towards the development of machine-mediated solutions for human-to-human interaction. [Specific-Qualifications-and-Requirements-for-the-SCRAT-Research-Group](#)

### **Adaptive Video Processing, Analytics and Communications for Real-Time Applications VIDEOMICS:**

Videomics Group research exploits unique video characteristics to harvest knowledge that is applicable across the spectrum of video technology applications with an emphasis on healthcare innovation. Research areas focus on:

- Developing codec-agnostic and wireless technology independent adaptive video streaming solutions that are universally applicable for 2D, 3D, and 360 video systems.

- Mathematically modelling video content and spatiotemporal complexity to derive video segment signatures towards region-of-interest identification and video summarization.
- Investigating the intersection and collaborative analytics of video compression methods and deep learning architectures.

[Specific-Qualifications-and-Requirements-for-the-VIDEOMICS-Research-Group](#)

**Real-Time Populated Virtual Environments ([RIPE](#)). Thematic Area: Virtual humans in Augmented Reality**

Augmented Reality (AR) aims to enhance the physical world through the use of digital elements, visual or otherwise. With the rapid advancement of AR hardware and algorithms, huge progress has been made over the past few years, to the point where we are now looking at realistic immersive solutions, using AR headsets (such as the MS Hololens 2). One problem, however, that remains mostly untapped is the addition of realistic virtual humans (VH) that would inhabit the same physical space as the user. These virtual humans could be avatars of other remote users or they could be entirely digitally generated and controlled. This PhD will investigate how we can add such VH in real-time solutions focusing mostly behavior and animation, in their interaction with the environment and the user.

[Specific-Qualifications-and-Requirements-for-the-RIPE-Research-Group](#)

**Immersive Technologies for Intelligent and Creative Applications ([ITICA](#))**

The Research focus of ITICA Research Group is on bringing together elements from fine arts with computational intelligence and emerging technologies such as Virtual Reality (VR) and Augmented Reality (AR) to develop evidence-based applications. The successful candidates will have the opportunity to support and engage with applied research projects in the aforementioned areas.

[Specific Qualifications and Requirements for the ITICA Research Group](#)

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Take advantage of this opportunity for your professional and personal development by being a part of our fast-growing Research and Innovation Centre of Excellence. An attractive remuneration package will be offered to the successful candidate according to qualifications and experience.

**Application process**

For full consideration, interested applicants should submit the following items via the [online application form](#) and select the following position: "*Application for Research Associate Positions*". You must mention the Research Group you are applying for in the comment box.

**Application Process for Research Associates:**

1. A cover letter which clearly specifies 1) contact details, 2) employment availability date, 3) part-time or full-time availability, and 4) MRG(s) of interest in order of priority
2. A detailed curriculum vitae in English
3. Copies of academic transcripts
4. Description of their academic and research experiences as well as any relevant industrial / innovation / entrepreneurship experience, where applicable (500 words maximum).

5. Contact details of two University professors or one University professor and one industry referee who will provide the letters.
6. Two (2) representative publications (if applicable).
7. Two (2) representative innovation outcomes / products (if applicable).

#### **General qualifications and requirements**

1. Strong computer programming skills
2. Language requirements: Excellent written and oral English-language skills will be required especially in reading technical / research articles.
3. Ability to independently identify problems and carry out research work within the scope of the MRG.
4. Ability to interact with stakeholders in application domains and identify opportunities for collaboration.
5. Previous research experience and high impact research publications on relevant topics (a requirement for PhD holders /an advantage for non-PhD holders).
6. Previous relevant industrial / innovation / entrepreneurship experience and interest will be considered an advantage.
7. Previous grant-writing experience will be considered an advantage.
8. For non-EU applicants a work permit will be required.

In case you previously applied for a post at CYENS CoE, a new application is required.

For general enquiries, applicants may contact the HR Department of CYENS, Centre of Excellence at [vacancies@cyens.org.cy](mailto:vacancies@cyens.org.cy).

CYENS Centre of Excellence is an equal opportunity employer and the position is open to everyone, internationally.

**All applications are treated in the strictest confidence.**

#### **ABOUT CYENS CoE**

CYENS Centre of Excellence is a Centre of Excellence in Research and Innovation on Information and Communication Technologies in Cyprus, aiming to empower knowledge and technology transfer in the region. It is a joint venture between the three public universities of Cyprus - University of Cyprus, Cyprus University of Technology, and, Open University of Cyprus-, the Municipality of Nicosia, and two renowned international partners, the Max Planck Institute for Informatics, Germany, and, the University College London, United Kingdom.



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