



Royal College of Art

Postgraduate Art & Design

Post:	Senior Research Associate, AiDesign Lab
Department:	Research & Innovation
Grade:	7
Responsible to:	PI AiDesign Lab RP2-9 Artificial and Distributed Intelligence
Term:	Fixed-term for 2 years
FTE:	1.0 (Flexible)

Background

The Royal College of Art is the UK's only entirely postgraduate institution of art and design, dedicated to teaching, research and knowledge exchange with industry. The RCA has been ranked the number one university-level institution for art & design, internationally, for the eighth consecutive year according to the QS World University Rankings by Subject, 2021.

The College currently has some 2,700 students registered for Graduate Diploma, MA, MRes, MPhil and PhD degrees, and this is set to rise to 3,000 in coming years. The majority of postgraduate teaching and research supervision is delivered by the RCA's four Schools: Architecture, Arts & Humanities; Communication; Design, with each School led by a Dean of international standing and a recognised leader in their field.

In addition, the RCA has a number of established and planned research centres: the Helen Hamlyn Centre for Design; the Material Science Research Centre (which includes the Burberry Materials Futures Research Group); the Intelligent Mobility Design Centre, the HELIX Centre, and future centres in Computer Science and in Drawing. The RCA is also home to one of the UK's most successful university incubators, InnovationRCA.

Our People

The RCA's Royal Visitor (Patron) is HRH Prince of Wales; its Chancellor is Sir Jony Ive, and the Pro-Chancellor and Chair of Council is Sir Peter Bazalgette. The RCA's Vice-Chancellor - the CEO of the institution - is Dr Paul Thompson. The RCA has more than 450 permanent staff, including internationally renowned artists, designers, architects, theorists and curators. These staff, together with an innovative pedagogy, world-class technical facilities and research centres, all contribute to an exceptional environment and a remarkable record of graduate employment. Generations of eminent graduates have created far-reaching impact and influence, such as Barbara Hepworth, Bridget Riley, David Hockney, Sir Ridley Scott, Sir James Dyson OM, Asif Kapadia, Thomas Heatherwick, Chris Ofili, Tracey Emin, Jake & Dinos Chapman, Christopher Bailey, Idris Khan, Chantal Joffe, Sir David Adjaye, Erdem, Monster Chetwynd, Oscar Murillo and Lina Lapelyte.

Strategic Plan 2022-2027

The RCA is currently crafting a new strategic plan, involving all staff in a process that was concluded in March 2022, with the publication of a new Strategic Vision and Plan for the next five years and the appointment of our new Chair of Council, Sir Peter Bazalgette. This plan will embrace the roll out of a new model of delivery for our taught postgraduate programmes; it will underscore our commitment to being the world's most research-intensive art & design university; and it will commit to a number of Equity and Diversity goals which will lead towards the RCA becoming an anti-racist institution.

Radical Matter proto-Centre: Art, Philosophy, Wild Science

The Radical Matter proto-Centre (RCA) foregrounds a practice-led approach to Artificial and Distributed intelligence, led by contemporary art and philosophy (logics of sense, traditional, media, electronic and digital poetics, cultural and political narrative structures) alongside advances in the wild sciences (quantum physics, super positionality, non-locality). It includes the PGR research group Entanglement (30+ PGR researchers and international scholars), and the MA School unit (Radical Matter), welcoming researchers within the School of Arts and Humanities and across the College.

Robotics at RCA

This research work in this project will be conducted in collaboration with researchers at RCA Robotics Laboratory. The lab designs and develops intelligent robots that can enhance human safety, access, and performance in a wide range of industrial and medical applications.

About AI Design Lab

The AI-Design Lab is a major collaboration between the Hong Kong Polytechnic University (HKPU) and the RCA, funded by the 'InnoHK' programme to support collaborations between Hong Kong universities and world-leading universities around the world. Building on the research and innovation expertise of the two institutions, the AI-Design (AiD) Lab will explore how artificial intelligence and design can address some of the major challenges of the 21st century. The AiDesign Lab is built around three programmes of research, all with an interdisciplinary and industry-facing focus and opportunities for commercialising the project outcomes:

1. Using AI and 3D modelling to improve fit, customisation and performance in clothing manufacture.
2. Using AI and robotics to explore customising products and services in the cultural sector, healthcare, ageing / wellbeing, new knowledge systems and in future transport systems.
3. Using AI and machine learning to improve efficiency, quality control and sustainability in the fashion industry.

The RCA is leading seven projects across these three programmes, involving staff from the RCA's research centres and academic schools, working in collaboration with HKPU colleagues.

Purpose of the Post

The purpose of AiDesign Lab RP2-9 Artificial and Distributed Intelligence is fourfold: First, to provide technological and ethical analysis and mapping of Ai/Di in relation to the challenges of the industrial revolution 4.0 and onwards, emphasising the opportunities for innovative product and service design in key industrial sectors. Second, to co-design and interact with users, participants, experts on application of Ai/DI (from the biosphere to technosphere). Third, to facilitate and promote knowledge exchange with academia, industry, policy makers and user groups to inform theoretical, practical and technical frameworks. Fourth, to publish and begin to implement insights, technologies, advocacy, policy, product and service design interventions for improved understanding and ethical application of Ai/DI to the opportunities and challenges of the industrial revolution 4.0 and onward.

Main Duties and Responsibilities

- To undertake high-quality, rigorous, and (where relevant) collaborative research which lead to robust research outcomes for the AiDesign Lab project.
- To develop personal research objectives and interests that align closely with wider project plans, working with the Co-PIs to ensure these are in line with the strategic direction of the project, the lab and of the college.
- Where appropriate, to prepare and submit funding proposals in collaboration with project team members to UK and international research funders, industry partners and other funding sources, to support the lab's research agenda and the post-holder's own research career development plans.
- In collaboration with project team members, to manage the award, ensuring execution of proposed research, efficient management of resources, and effective delivery of research outcomes and impacts.
- To work with academic, industry and third sector partners as appropriate on collaborative research and knowledge exchange to achieve the deliverables of the RP2-9 Artificial and Distributed Intelligence.
- To support engagement with partnering companies, undertaking collaborative research and contributing to working relationships to maintain a productive partnership.
- To produce and disseminate research outputs. These outputs may be suitable for submission to the national Research Excellence Framework (REF) exercise, with a quality of at least 3* as per the REF definition.
- To support communication of research outcomes to a wide variety of audiences, including through public engagement, tailoring content and style to a broad range of specialist and non-specialist audiences.
- To participate in relevant academic, industry, government and policy networks as appropriate, presenting the work of, and representing the lab as relevant.
- To participate in lab team meetings and activities, events and workshops, contributing ideas for development, delivery and promotion of projects.
- To contribute to the RCA Academic community through presentations or teaching in appropriate forums and participation in RCA-wide activities such as Across RCA or Committees and boards as requested.
- To conduct all research reflecting best practice in ethics, integrity, research data management, and research governance, ensuring compliance with RCA policies and external funding terms and conditions and sector standards.

- To ensure compliance with RCA processes and procedures in relation to procurement and use of equipment and facilities, including health and safety policies, working with relevant departments across RCA.
- To ensure confidentiality of sensitive project information is maintained, through appropriate project data protection.
- To undertake general administrative and other tasks relevant to the lab's work, as required by senior staff.

Person Specification

Essential

- The successful candidate must be able to demonstrate at least one of the following:
 - PhD in AI and distributed intelligence in selected technologies for the development of for example: synthetic skin with camouflaging ability connected with the extendable and distributive senses.
 - Or equivalent experience in a related field of Ai/Di in selected technological advancement regarding for example: synthetic skin with camouflaging ability connected with the extendable and distributive senses.
 - Or a Masters degree with international experience in research projects specifically addressing AI and distributed intelligence in technologies linked to, for example, synthetic skin with camouflaging ability connected with the extendable and distributable senses (including biomimicry, work with cephalopods or murmuration behaviour), and showcasing industry engagement framework.
- Experience of working in research and research projects, either academic or commercial/industrial in a topic relevant to this project (AI and distributed intelligence in the 4th Industrial Revolution and onwards).
- Experience of working with concepts and processes in relation to technical AI development.
- Experience with deploying and testing proof of concept in selective narrative and community situations, garnering feedback and technical information.
- Experience of producing and publishing experimental methods for AI / DI research linked to single bodied and multi-modal environments which might include cultural, ethical and educational application.
- Evidence of producing quality research outputs relevant to the career stage and discipline.
- Demonstrable understanding of good practice in research conduct (including in research ethics, research integrity and handling research data).
- Demonstrable ability to be a collaborative member of a broader team, working constructively with senior staff and supporting the work of less experienced staff or students involved in projects.
- Evidenced flexibility and confidence to tackle a wide range of tasks, with an open, pro-active, creative and problem-solving approach.
- Evidenced excellent writing, communication and presentation skills, able to adopt an appropriate style for a range of specialist and non-specialist audiences.
- Evidenced strong interpersonal and team-working skills.

- Genuine commitment to the aims of the project and of the lab.

Desirable

- Evidenced experience of collaborative projects, preferably involving HE/industry collaborations in a relevant field.
- Evidenced experience of contributing to and reporting on projects.
- Broad knowledge of creative technologies.
- Broad knowledge of contemporary methodologies and knowledge systems relevant to AI and distributed intelligence in digital storytelling, digital filmmaking, sound, creative coding and/or physical computing, artificial and distributive intelligence with emphasis on multi-modal and/or interspecies environments linked to emergence and quantum computing.

Additional Information

- Location: Battersea
- Salary working 5 days per week: £37,910 - £41,171 per annum inclusive of London Allowance. This is a fixed term role, duration 24 months.
- Normal hours will total 35 hours per week, 9.30am to 5.30pm with an hour each day for lunch.
- 25 days annual leave, plus extended breaks at Christmas and Easter at the discretion of the college.
- A contributory defined benefit pension scheme and interest free season ticket loan are available
- The Senior Research Associate will be required to spend time in Hong Kong at least once a year for the employment period.

MAY 2022

PAY & BENEFITS

Pension

The Royal College of Art is a member of the Superannuation Arrangements of the University of London (SAUL) which is a contributory defined benefit pension scheme. The college will contribute a sum equal to 19% of your salary while you pay 6%.

Holiday

5 weeks (25 days) paid leave a year plus bank and public holidays normally observed in England and Wales. In addition, the college is normally closed for six days a year, one day either side of Easter and the remainder between Christmas and New Year. Part-time staff will be entitled to the pro rata equivalent.

Season ticket loans

Interest-free loans are available for staff to purchase annual season tickets.

Enhanced maternity and adoption pay

Qualifying employees are entitled to enhanced maternity/adoption pay: 26 weeks' full pay, 13 weeks Statutory Maternity/Adoption Pay. This compares to the statutory provision of 90% of average pay for 6 weeks followed by Statutory Maternity/Adoption pay for 33 weeks.

Enhanced paternity pay

Qualifying employees are entitled to two weeks' paternity leave entitlement at full pay. This compares to the statutory provision of two weeks' pay at the statutory rate.

Enhanced sick pay

Occupational sick pay after six months' service is three months' full pay/three months' half pay.

24/7 confidential support

Staff and family members in their household have access to a free, external confidential support service for work, financial, legal, family and personal problems 24 hours a day, 365 days a year.

Occupational health

Occupational Health support for the College is provided by Imperial College's occupational health service at their South Kensington Campus.

Life Cover

Active members of the SAUL pension scheme automatically receive life cover. A lump sum of four times your salary together with a refund of your contributions and a 2/3 pension for your dependent/spouse is payable should you die whilst in employment.

Library

All staff are welcome to join the college library.

Events

All staff are welcome to attend exhibitions, lectures and private views held by academic schools and programmes.

