



Royal College of Art

Postgraduate Art & Design

Role:	Vehicle Designer
Department:	Intelligent Mobility Design Centre (IMDC)
Grade:	7, FTE flexible (0.6-1 FTE)
Duration:	up to 24 month post (end date of project: 28.7.24)
Responsible to:	Prof Dale Harrow

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 500 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, Philip Treacey, 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.

About the Centre

Intelligent Mobility Design Centre (IMDC)

The Intelligent Mobility Design Centre (IMDC) leads research at the intersection of people, mobility and technology within a complex and changing urban and global environment. The IMDC is an interdisciplinary centre exploring, experimenting, prototyping and evaluating new mobility and automotive transitions via the synthesis of design and research methods. It integrates design and technology with insights into people and the social, environmental and economic context to enable a 360 view on the design of future mobility. The IMDC has a dedicated Studio space and visualisation lab to (co)develop, build and evaluate (full scale) vehicles and mobility services using a range of methods and tools including physical mock-ups, experiential prototypes, high fidelity visualisations and Extended Reality (XR) technologies.

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 AiDLab 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 healthcare, ageing and wellbeing and in future transport systems
3. Using AI and machine learning to improve efficiency, quality control and sustainability in the fashion industry.

The RCA will lead 7 projects across these three programmes, involving staff from across the RCA's research centres and academic schools, working in collaboration with HKPU colleagues.

About the project:

As part of the AiDLab, the IMDC-led project "*AI design for autonomous mobility*" focuses on the experience of Artificial Intelligence (AI) as embodied in Autonomous Vehicles (AV). AVs are expected to lead to disruptive and eventually transformative changes in mobility.

There is however also a public sense of distrust and apprehension and purposeful design for trust and acceptance is critical. Furthermore, AV journey experiences that are inclusive, intuitive, and joyful will not only become key commercial differentiators for mobility providers, but also key drivers shifting the public towards more sustainable transport choices. Based on an understanding of people's needs and desires, the aim of the project is to explore and experiment and develop novel and innovative AV design directions in response to these challenges and opportunities. Two complimentary and interconnected strands have been identified for exploration, research and innovation. The first strand focusses on the design of in-vehicle intelligent agents, tangible, embedded, and embodied interactions exploring new directions of passenger experiences. The second strand explores the exterior and interior design of future AVs. Despite the fact that the vehicle itself can be thought of as the physical embodiment of AI, forming the first and foremost interface establishing the relationship between people and AVs, the role of vehicle design (i.e. architecture, form, and graphics) remains largely unexplored. The collaboration and integration of the two strands is expected to lead to novel design concepts for future AVs and passenger experiences.

Purpose of the post:

The IMDC is looking for highly creative designers with a desire to work on autonomous vehicle projects, shaping the future of mobility. The overall objective of the project is to create and produce prototypes and demonstrators of new vehicles and interactions for evaluation as part of a broader research project. This could be in the form of animations, interior mock-ups, design models, Extended Reality experiences, and other media for testing and evaluation. This will require outputs of different fidelities for staged research and iterative design cycles. The project requires close collaboration between two complimentary roles: For the vehicle designer this is to explore new vehicle architecture, form, and detail and produce prototypes and demonstrators at various fidelities through to finished design solutions. For the interaction designer this is to explore the potential for new forms of interactions and experiences and use multimedia to create demonstrations and experiences for trialling and evaluation within the vehicle space. We anticipate that the project will produce a high-fidelity solution suitable for understanding real experiences of future autonomous mobility.

Duties and responsibilities:

Project Development & Management

- To coordinate and deliver project activities for "AI in Autonomous Mobility", developing a day-to-day plan for project activity within the framework of the agreed programme, coordinating with the project lead to ensure alignment with overall goals and avoid project conflict or duplication of effort.
- Develop design proposals and use them as part of the design process (Research through Design)
- Physical and digital prototyping using a range of tools
- To support research on behalf of the project: this may include preparing, setting up, and conducting field work or user research, running workshops, stakeholder analysis, user journey mapping or other activities as appropriate to the project methods such as exhibitions.
- To record and document the outcomes of the project, providing specific outputs as agreed with the project partner. These may include providing design exemplars, digital and physical media, reports, presentations, or academic outputs.

- To coordinate (with the project lead/team) the management of the project, ensuring execution of the proposed project, efficient management of resources, and effective delivery of project outcomes and impacts.
- To support engagement with the project partner, contributing to working relationships to maintain a productive partnership.
- Where appropriate and relevant, to assist the project lead in supervision of junior project workers: ensure they are equipped to deliver outputs within agreed timescales and are undertaking work at an appropriate level.
- To coordinate casual workers on a project under direction from the project lead.

Communication and Dissemination

- To coordinate and communicate and/or disseminate the project outputs as agreed with the project partner, tailoring the content to different audiences. These could include written, verbal, visual or other agreed output modes.
- To present information on project progress and outcomes to internal colleagues and external parties as agreed with the project lead. This may include at Centre events or partner meetings.
- To support and participate in project and Centre team meetings and activities, events and workshops, contributing ideas for development, delivery and promotion of projects.
- To communicate with project partners and other external contacts (which may include academic, industry, government and policy networks) in a professional manner, developing relationships for future collaboration.

Developmental Activities

- To use and develop local (IMDC) research techniques and methods and contribute ideas from the project into the Centre's portfolio of methods and projects.
- To support the delivery of Executive Education courses and workshops as appropriate.
- Where appropriate, to prepare and submit project proposals in collaboration with Centre team members: analysing partner needs, identifying project delivery methods, writing/editing proposal text, and identifying project resource requirements.

Personal specification:

Essential

- Masters degree level qualification in automotive/transport/vehicle design or equivalent experience.
- Experience of design methods and techniques.
- Evidenced experience of coordinating and delivering design projects, either within an academic or commercial/industrial setting.
- Evidence of producing high-quality design outputs.
- Evidenced experience of contributing to and reporting on projects.
- 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, proactive, creative and problem-solving approach.
- Strong interpersonal and team-working skills
- Genuine commitment to the aims of the Centre

Desirable

- Ability to be creative in their thinking and adopt an explorative and experimental approach, developing multiple solutions
- Ability to develop design from sketch to 3D quickly
- Understand and work across vehicle typologies
- Experience of modelling and presentation packages (3D, animations, VR, video)
- Excellent communication and presentation skills, able to adopt an appropriate style for a range of specialist and non-specialist audiences.

Additional information

- Battersea
- Salary working five days per week, £37,910 - £41,171 p.a. inclusive of London Allowance.
- 25 days annual leave plus extended breaks at Christmas and Easter at the discretion of the College, pro rata for part time employees.
- Normal hours will total 35 per week over five days, 9.30am to 5.30pm with an hour each day for lunch.
- A contributory defined benefit pension scheme and interest free season ticket loan are available.
- The Vehicle Designer will be required to spend time in Hong Kong at least once a year for the employment period.

JUNE 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.

Cycle to Work Scheme

The Royal College of Art has signed up to the Cycle to Work Scheme – part of the government's Green Transport Initiative – which allows employees to make significant savings on purchasing new bikes and safety equipment.

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.