AiDLab Officially Launched Today
as a Pioneer in Integration of AI and Design
*Delivering first-in-market intelligent design solutions
and world-class academic excellence*

HONG KONG, November 4, 2021 – Established to lead the global dialogue on creative innovation, the Laboratory for Artificial Intelligence in Design (AiDLab), was officially launched today as one of the multiple research centres within the InnoHK research clusters under the flagship initiative announced in the Chief Executive's 2021 Policy Address. Founded jointly by The Hong Kong Polytechnic University (PolyU) and the Royal College of Art (RCA), United Kingdom, the laboratory is the region's first research platform that focuses on the integration of artificial intelligence (AI) with creative design.

AiDLab brings together top international academics, designers, and engineers, to conduct human-centred interdisciplinary research providing multi-faceted solutions for current global issues using AI and distinct innovative designs.

Professor Wing-tak Wong, Chairman of Board of Directors of AiDLab and Deputy President and Provost of PolyU, said, "With the ever-growing influence and importance of AI, we envisage its diverse possibilities of usage and rising demands in numerous industries. PolyU takes pride in this synergistic collaboration with the prestigious Royal College of Art. Together, we join forces to translate our cutting-edge research into practical knowledge and impactful AI solutions to meet society's challenges. We are committed to supporting the Government's initiative to develop Hong Kong into a global hub of innovation and technology."

Professor Calvin Wong, Centre Director of AiDLab and Cheng Yik Hung Professor in Fashion of PolyU, said, "We believe that the integration of AI and design will bring about a paradigm shift in the fundamentals of how we create, communicate and contribute to society. Serving as a unique platform that connects local and international research community, industry and society, AiDLab utilises novel technology to facilitate intuitive and effective product and service design processes that can enhance human-computer interaction and address society's needs for creativity, efficiency and sustainability."

Professor Naren Barfield, Associate Director of AiDLab and Deputy Vice-Chancellor and Provost of the Royal College of Art, said: "The Royal College of Art is delighted to collaborate with Hong Kong PolyU to establish a world-class centre for research that brings together design and AI to imagine - and create for - our future needs in the fourth industrial revolution. The complementary expertise of our two institutions will create an exciting and dynamic multidisciplinary research environment that will make a major difference to human-centred design and creative innovation, with global impact and societal benefit."

To actualise the laboratory's aim to create impact by enhancing the design of everyday products and services via the seamless integration of AI, the laboratory conducts research in three main areas:

Ergonomic and Inclusive Design

This programme deploys AI technologies to develop innovative body measurement and posture correction solutions that advance fashion design and wearables for health and well-being.

Innovation in Product and Service Design

This programme focuses on participative, user-centred design research employing co-design methodologies to contribute to the continuous and iterative evolution of AI creative systems. The research incorporates machine- and self-learning systems to accelerate design processes for products and services.

Intelligent Fashion Design and Quality Control

This programme explores algorithmic design that integrates machine intelligence and human knowledge with respect to fashion and textiles, leading to advances in design, quality control and manufacturing processes.

As part of the launch, the laboratory is introducing a key project and a major facility:

(I) Artificial Intelligence-based Interactive Design Assistant for Fashion (AiDF)

Developed by Professor Calvin Wong and his team, AiDF is a market-first technology that empowers novices and experts to work with AI for generating ranges of original fashion designs speedily, based on their personal creative inspirations. Unlike current mainstreamed AI technologies on new image generation, which rely solely on the digital input of existing real fashion images to output new designs, AiDF generates unique creations based on the designer's original inspirations and personal style. Co-developed by AI experts and designers for designers using a specific combination of AI technologies, the system addresses the practitioner's needs during the ideation and development process.

With just a few simple clicks, designers can select personal options to further refine or include within their collections, enhancing conventional, intensive studio processes with agility, efficiency and flexibility. AiDF is moving on to rigorous trial use studies conducted with regional and international fashion practitioners prior to its official roll-out to the industry. A demonstration was provided today by the AiDF team. The technology and fashion collections driven by AiDF will be showcased at a fashion show to be held in 2022, so as to share innovative designs resultant from the interaction between human and AI.

(II) Integration of AI and dynamic scanning for wearables

AiDLab researchers will create ergonomic design breakthroughs for functional apparels and wearables with the dynamic movement data captured by its state-of-the-art facility, the "4D Body Scanning Lab". It is the first of its kind in Hong Kong and possesses a marker-less scanning system (3dMD, USA) with 30 machine vision cameras to capture a range of poses, actions and gestures, in four dimensions. A demonstration today showed how researchers will be able to use the system to capture human subjects in dynamic movements. One application example is that by integrating the scanned motion data of human body with pressure/temperature distribution data as well as AI techniques, predicted pressure/temperature distribution of different types of human body shapes can be generated to facilitate customised functional apparels and wearables design and product development. This facility will support the acquisition of new knowledge for AiDLab's projects that focuses on optimal fit and comfort for well-being.

Looking forward, AiDLab will establish the Artificial Intelligence in Design Consortium (AIDC), to bring together businesses, designers and engineers who share in its common vision to inject new impetus into the industry with the synergy of AI and design. All interested parties and individuals are welcome to join the upcoming events and initiatives, including various conference and seminar which will serve as platforms to foster collaboration and knowledge exchange between academia, industry and the general public.

About Laboratory for Artificial Intelligence in Design (AiDLab)
AiDLab, the region's first research platform that focuses on Artificial Intelligence (AI) and design innovations, is a research operation jointly established by The Hong Kong Polytechnic University (PolyU) and The Royal College of Art (RCA) in the U.K., bringing together a diverse group of leading researchers and practitioners from its founding institutions to conduct AI and design-related research. Funded under the InnoHK Research Clusters by the HKSAR Government and located at the Hong Kong Science and Technology Park, our leading and cross-disciplinary research creates a positive impact on the global design industry, contributes to the wider economy, and improves the quality of life. Three research programmes at AiDLab include Ergonomic and Inclusive Design, Innovation in Product and Service Design, and Intelligent Fashion Design and Quality Control.

About The Hong Kong Polytechnic University
While boasting a proud history of over 80 years, The Hong Kong Polytechnic University (PolyU) is a vibrant and aspiring university with a forward-looking vision and mission. Committed to building a talent pipeline and research strength for advancing the development of Hong Kong, the Nation and the world, PolyU provides the best holistic education to nurture future-ready global citizens and socially responsible leaders; conducts high-impact interdisciplinary research and proactively transfers knowledge to create value and build impact. We embrace internationalisation and engage the nation for education and research through strategic partnerships and collaborations.

With "Opening Minds. Shaping the Future" as our brand promise, the University is currently offering more than 160 taught programmes in six faculties and two schools, engaging in 3,200 exciting research projects and collaborating with over 660 institutions overseas and in the Chinese mainland on a wide variety of initiatives. We have over 400,000 alumni around the globe and 28,000 students.

About Royal College of Art (RCA)
The Royal College of Art is the world's leading art and design university. A small, specialist postgraduate institution based in the heart of London, the RCA's approach is founded on the premise that art, design, creative thinking, science, engineering and technology must all collaborate to solve today's global challenges. It excels in world-leading art and design research with real-world impact. Its research is characterised by its roots in creative and innovative practice, by engagement with business, industry, government policy and communities, and by collaboration across disciplines, particularly with researchers in science, engineering, technology and medicine. Its teaching, research and innovation are delivered through four Schools – Architecture, Arts & Humanities, Communication, and Design – and through four Research Centres – the Helen Hamlyn Centre for Design, the Intelligent Mobility Design Centre, the Material Science Research Centre, and the Computer Science Research Centre, working alongside the RCA Robotics Lab and the Design Age Institute.

For media enquiries, please contact:

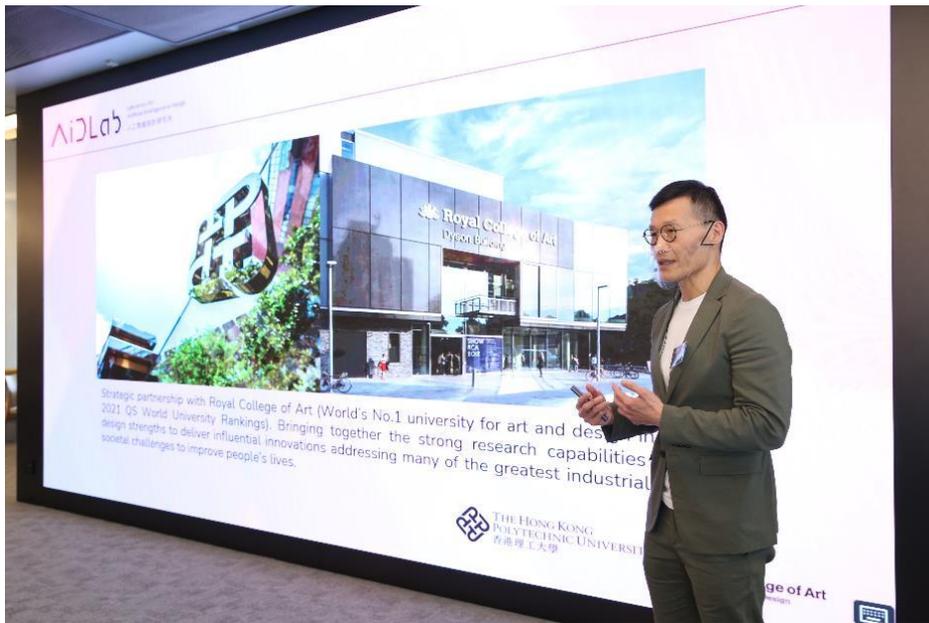| iPR Ogilvy	Laboratory for Artificial Intelligence in Design (AiDLab)
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Phots Captions:

Photo 1:

Prof. Calvin Wong, Centre Director of AiDLab introduces the highlights of the Laboratory for Artificial Intelligence in Design (AiDLab).

Photo 2:

Group photo of **Prof. Wing-tak Wong, Chairman of Board of Directors of AiDLab and Deputy President and Provost of PolyU** (left) and **Prof. Calvin Wong, Centre Director of AiDLab.**

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Photo 3:

Group photo with **Prof. Wing-tak Wong, Chairman of Board of Directors of AiDLab and Deputy President and Provost of PolyU** (Middle), **Prof. Calvin Wong, Centre Director of AiDLab** (2nd right**), Dr Jeanne Tan, Assistant Director of AiDLab** (2nd left), **Dr Kit-lun Yick, Team Leader of Ergonomic and Inclusive Design Research Programme of AiDLab** (1st left), and **Ms Lydia Fung, General Manager of AiDLab** (1st right).
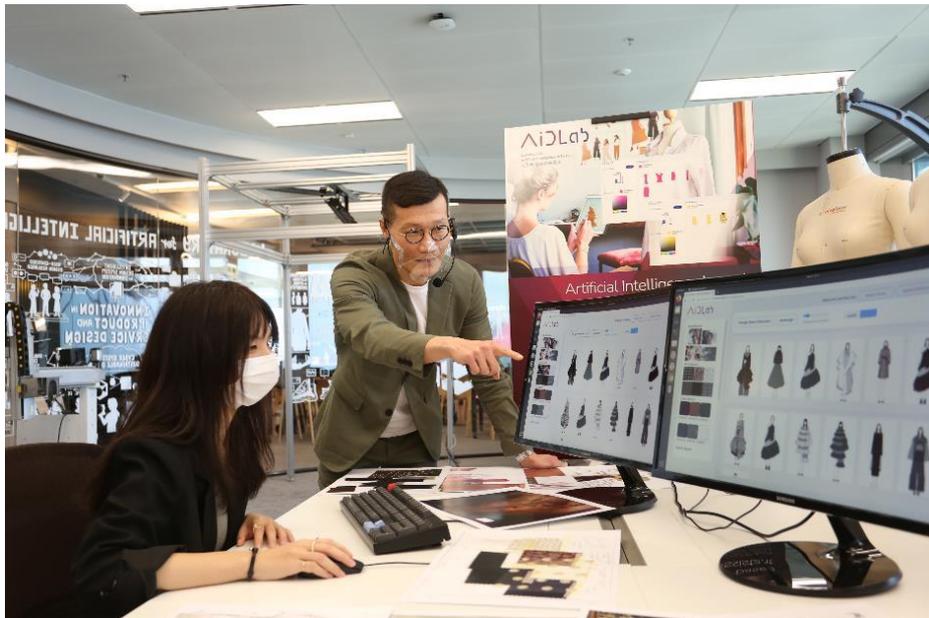

Photo 4:

Developed by **Prof. Calvin Wong** and his team, the Artificial Intelligence-based Interactive Design Assistant for Fashion (AiDF) empowers novices and experts to work with AI for generating ranges of original fashion designs speedily, based on their personal creative inspirations.

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Photo 5:
Dr Kit-lun Yick and her team utilise the "4D Body Scanning Lab" to capture the dynamic movement data, facilitating ergonomic design of functional apparels and wearables.