



PARTNERSHIPS FOR THE GOALS

Research



InnoHK Research Centres

InnoHK is a flagship innovation and technology initiative of the Hong Kong Government that aims to promote international research collaboration with a view to putting Hong Kong on the global advanced technology map. PolyU strongly supports this landmark initiative and, in partnership with world-renowned institutions, has established three world-class pioneering research centres under InnoHK, focusing on artificial intelligence, design and vision science technologies. Located in the Hong Kong Science Park, they are:

- The Laboratory for Artificial Intelligence in Design, established in collaboration with the Royal College of Art, UK;
- The Centre for Advances in Reliability and Safety, established with the University of Maryland, College Park, USA as the key research collaborator; and
- The Centre for Eye and Vision Research, established in partnership with the University of Waterloo, Canada.

Global Collaboration on Developing Fear of COVID-19 Scale

The spread of COVID-19 has led to fear worldwide. A team led by researchers of the Department of Rehabilitation Sciences, in collaboration with researchers from Iran, Sweden, and the UK, has developed the "Fear of COVID-19 Scale" to complement clinical efforts in treating COVID-19 and preventing its spread. The seven-item scale has robust psychometric properties, with scale items constructed based on an extensive review of existing fear scales, expert evaluations and participant interviews. Several psychometric tests have been conducted to ascertain its reliability and validity in assessing fear of COVID-19 among the general population. The scale will be useful in allaying COVID-19 fears among individuals.



Internationally co-authored papers:

74%



Collaborating countries which belong to low/lower-middle income group:

41%



National Partnership: Novel Rail Damper in Trial Use on Shenzhen Metro

The Modular Rail Particle Damper is a new rail damper developed by a research team led by Ir Professor Ni Yiqing (Yim, Mak, Kwok & Chung Professor in Smart Structures, Chair Professor of Smart Structures and Rail Transit at the Department of Civil and Environmental Engineering, and Director of the Hong Kong branch of the Chinese National Rail Transit Electrification and Automation Engineering Technology Research Centre) at PolyU. The dampers mitigate and control noise and vibrations in rail transit systems by using rail particle damping technology and an advanced machine learning algorithm. They were installed for trial use on a viaduct section of the Shenzhen Metro in January 2022, and will later be extended to other urban rail transit systems in Mainland China.

Local Partnership: Inspection Robot Improves Power Plant Maintenance

The University has established research partnerships with the Hong Kong Government, public organisations and NGOs to tackle critical issues related to its achieving SDGs. One of many such examples is the Department of Electrical and Electronic Engineering working with CLP Power Hong Kong Limited to develop an inspection robot that can work inside generators without the need to disassemble and reassemble their components, thus minimising the risk of damaging the components, shortening maintenance time and minimising the need for visual inspection. By deploying the robots, both the effectiveness and accuracy of generator inspection can be enhanced.

Education

Engaging Students from PolyU and Member Institutions of University Social Responsibility Network (USRN) in Service-Learning

The Department of Computing and the Service-Learning and Leadership Office co-organised the “Digital Leadership and Social Responsibility” programme, which was open to students from PolyU and other USRN member institutions. The programme aimed to develop students’ global leadership capabilities and cultural sensitivity in the context of appropriate technology use in the digital age and enable them to demonstrate these competencies in practice by working in virtual teams on a PolyU service-learning project.

Global Classrooms Offer Internationalisation at Home for PolyU Students

To counteract the impact of COVID-19, which has forced the suspension of many internationalisation efforts including student exchange programmes, PolyU teachers have brought internationalisation to Hong Kong through the University’s Global Classrooms. By making innovative use of information technology, the physical and virtual learning environment has been expanded. In the past two years, Global Classrooms have been conducted with universities in Austria, Finland, Germany, Russia, South Africa, Spain, and the US. With students and teachers having been very positive about the experience, Global Classrooms will gradually become a routine part of on-campus programmes.

Postgraduate and Doctorate Programme Partnership

PolyU offers joint programmes ranging from master’s to doctoral levels in collaboration with a number of universities in Mainland China. One such example is the Master of Science in Disaster Nursing programme, developed in collaboration with Sichuan University and taught by The Sichuan University–Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction. The programme, which aims to equip nurses based on the projected health needs of an affected community throughout the disaster management continuum, offers them the opportunity to develop the knowledge, skills and judgement necessary to function effectively as a practitioner, supervisor, collaborator, educator, manager, researcher and leader in a disaster-affected healthcare system.





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Engagement

PolyU and NGOs Develop Innovative and Effective Intervention Services to Help Families Cope with Adversity

Since 2021, the University has partnered with local NGOs to enhance family resilience. The three-year collaborative project, supported by The Hong Kong Jockey Club Charities Trust, has resulted in initiatives that include an e-learning course and community programmes. The project exemplifies an emphasis on partnerships to address social issues, while highlighting the value of cross-sectoral partnerships in achieving SDG17 through developing educational resources, research and interventions to help Hong Kong families thrive amid challenges.



Partnership in "Grant for Good" Oxfam Hong Kong Poverty Alleviation Social Innovation

The PolyU Jockey Club Design Institute for Social Innovation was invited to jointly develop and deliver a unique social innovation and capacity-building programme in late 2021. Teams participated in a five-day workshop to improve their project planning and execution skills. The workshop combined the "Design Thinking" method commonly used in the social innovation sector and the concept of "Theory of Change", which is familiar to many NGOs, to support eight teams aspiring to create poverty alleviation

projects and design new services. The planning toolkit was also designed to help aspirants in all sectors design and plan innovative poverty alleviation projects, and to be used in response to the actual needs for non-profit training, teaching, community development or research.

INTERNATIONAL
USR
SUMMIT
2022

**EDUCATION AND ACTION
FOR A SUSTAINABLE FUTURE**

ORGANISED BY:

SFU THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

USR
NETWORK

THE HONG KONG
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Geoffrey Q.P. Shen
The Hong Kong Polytechnic University

Joy Johnson
Simon Fraser University



Policies and Operations

Cross Sectoral Dialogue about SDGs: University Social Responsibility Network (USRN)

The USRN was established in 2015, bringing together a group of thought leaders to exchange ideas, resources, and practices of varied scope and scale to steer global discussion and development of USR in higher education. The USRN now has 20 member institutions worldwide; PolyU is one of the founding members and Chair of its Executive Committee. Members work together to address global economic, social, cultural and environmental challenges with a view to making the world more just, inclusive, peaceful and sustainable. International USR Summit, webinars and global student engagement events were organised periodically.

The Hong Kong Sustainable Campus Consortium

Established in 2010 by the HKSAR Heads of Universities Committee, it provides a platform to information and best practices sharing on sustainability-related issues among the eight publicly-funded universities in Hong Kong including PolyU. The Consortium is also accountable for the Hong Kong Declaration implementation and result reporting on environmental performance indicators adopted by the higher education sector. PolyU convened the Consortium and chaired the executive committee in 2022.