



THE HONG KONG  
POLYTECHNIC UNIVERSITY  
香港理工大學



GRADUATE SCHOOL  
研究生院

# GS NEWS

SEP 2022

## Feature Stories

A History of RPg Education

Interview with PolyU MPhil Alumnus, Sr Tsui Hoi Yuen Paul

RPg Summer School 2022

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# GS Updates



In May 2022, GS implemented the Unified PhD Scholarship Framework (UPSF) with the aim of consolidating various schemes to streamline the quality assessment and selection of research postgraduate (RPg) applications, and providing clear criteria and guidelines on application requirements, information submission, and the selection process.

The framework comprises two main schemes, namely the PolyU Presidential PhD Fellowship Scheme (PPPFS) and Top-up Funding Scheme, aimed at recruiting talented and high-quality RPg students. There are both competitive and incentive schemes, catering to the needs of PolyU and the research and development of academic staff.

UPSF is based on the core principles of generality versus specificity, consistent versus holistic assessment, and trust and accountability. Thus, applicants' academic excellence and/or research ability and potential can be considered fairly.

Two information sessions on UPSF were conducted in April to introduce the framework for D/SRCs, and all academic staff, respectively.

Scheme	Monthly Stipend	Research Excellence Scholarship	Conference and Research-related Travel Allowance	Cash Award
Hong Kong PhD Fellowship Scheme (HKPFS)	HK\$27,100*	In the form of a tuition waiver*	HK\$13,600/year*	HK\$40,000 (first year) HK\$20,000/year (second year onwards)
PolyU Presidential PhD Fellowship Scheme (PPPFS)	HK\$26,800*	In the form of a tuition waiver*	HK\$25,000*	HK\$40,000 (first year) HK\$20,000/year (second year onwards)
PolyU Research Postgraduate Scholarship (PRPgS)	HK\$18,100*	/	HK\$25,000*	/

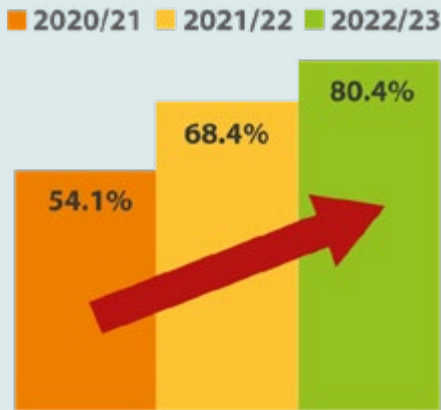
\* for the entire normal study period

Learn more about  
UPSF Scholarships at:  
[https://polyu.hk/  
SqbCv](https://polyu.hk/SqbCv)





## Continued Success in Hong Kong PhD Fellowship Scheme Recruitment



PolyU has achieved a success rate of 80.4%\* in the 2022/23 Hong Kong PhD Fellowship Scheme (HKPFS), a highly competitive and prestigious award scheme. The success rate has continued to grow over the past three HKPFS exercises, demonstrating our sustained ability to attract brilliant students from around the world. The continued success in HKPFS is a testament to PolyU's unwavering commitment to excellence.

## PolyU- The Choice of HKPFS Talents

In the 2022/23 exercise, 43 PolyU candidates\* received an HKPFS award. Xie Yupei, from the Department of Applied Mathematics (AMA), is one of the HKPFS awardees.

Yupei was outstanding in undergraduate mathematics at Peking University, attaining a master's degree with distinction from ETH Zurich. Both institutions are ranked in the top 15 in the QS World University Rankings 2023. Driven by his passion for pure and applied mathematics, Yupei aspires to become a mathematician in academia.

When choosing his RPg studies, Yupei considered Hong Kong as a place to study because it is ranked 12th among 140 cities in the QS Best Student Cities 2023. He also searched for an expert scholar as his research supervisor and for postdoctoral opportunities. PolyU thus became his first choice. In addition, PolyU is well-equipped with state-of-the-art research facilities and is conveniently



located adjacent to Victoria Harbour, with living facilities and all forms of leisure activities to experience. Having gained experience of writing a research paper with his supervisor, Yupei found his research experience very rewarding at PolyU.

\* Data as of the article submission deadline

**HKPFS at PolyU is the best choice to elevate an academic journey to the next level.**

Apply for HKPFS at PolyU!  
Learn more at: <https://polyu.hk/NHqqV>



# New Partner Institutions of Global Outreach



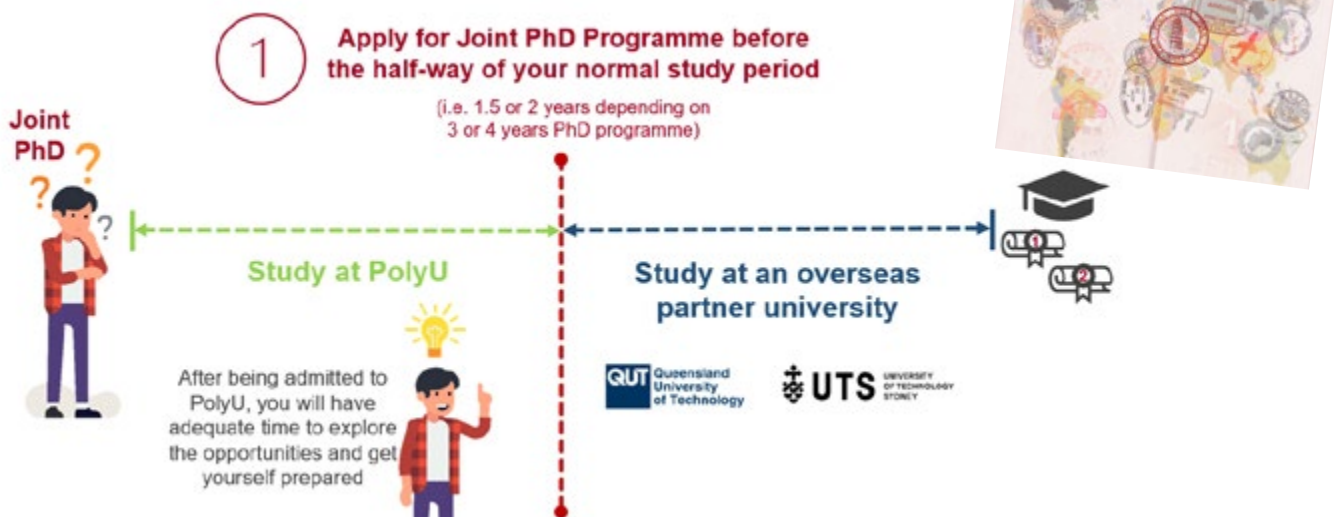
PolyU has established partnerships with many top institutions worldwide for the Joint PhD Programmes Leading to Dual Awards and the Collaborative PhD Training Programmes. With some new partner institutions joining the network in 2023/24, PolyU has further strengthened its global outreach.

In the **Joint PhD Programmes Leading to Dual Awards**, there is a network of 13 top Mainland China universities and three overseas universities. Two universities in the Mainland joined the network and became our new partners in 2023/24:

**Northwestern Polytechnical University**

**Southeast University**

PhD students enrolled at PolyU are encouraged to apply to overseas partner universities through the Joint PhD Programmes in the first half of the normal study period. Students can broaden their horizons and enrich their research experiences through these connections.



In the **Collaborative PhD Training Programmes**, there are five partner institutions in Mainland China. The following is a newly-signed institution:

**Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)**

An information session for the Collaborative PhD Training Programmes was co-hosted by

PolyU and the Eastern Institute of Technology (EIT) on 20 April 2022 to recruit PhD students. Many potential supervisors joined the session and there was a student sharing.

Through the research strengths of partner institutions, students of the Collaborative PhD Training Programmes can access opportunities that allow their research to flourish.

# Feature Stories



Founded in 1937, PolyU is celebrating 85 years of the unwavering pursuit of holistic professional education, practical innovation, and positive societal impact.

## PolyU 85th Anniversary- A History of RPg Education

### Historical Development of RPg Education

Growing from its beginnings as a government trade school in 1937, to Hong Kong Technical College in 1947 and Hong Kong Polytechnic in 1972, PolyU became a world-class research university in 1994. Its first MPhil and PhD programmes were introduced in 1986 and 1989, respectively. In September 2020, PolyU established the Graduate School to promote excellence in RPg education through its pivotal and strategic role in policy development, quality assurance, student experience enhancement, and RPg education promotion. Addressing changing societal needs, the range of RPg programmes has continued to grow as student enrolments have increased. On its 85th anniversary, PolyU has nurtured more than 5,800 RPg graduates and is now home to more than 2,500 RPg students in a wide range of disciplines.







## Nurturing Research Talents

Robust support and abundant resources are the keys to students' research success. PolyU research students have access to state-of-the-art research facilities, comprehensive knowledge transfer and entrepreneurship guidance, and ample opportunities for developing their personal and professional attributes. Connections to a global network of more than 280 overseas institutions across 39 countries and regions enrich students' cultural experiences, and their interest in research and innovation is instilled through funding and incubation programmes.

To promote a seamless transition from undergraduate to postgraduate research, the Undergraduate Research and Innovation Scheme (URIS) and the virtual College of Undergraduate Researchers and Innovators (CURI) were established in summer 2021 to arouse academic curiosity and nourish enquiry-based learning among the next generation of researchers and innovators.



## Alumni Contributions to Society

Our distinguished RPg alumni are playing pivotal roles in their communities. They devote themselves to a wide spectrum of service, ranging from academia to government and industry.



Some alumni have ventured into successful entrepreneurship. Having close ties with their alma mater, outstanding RPg alumni have taken up roles as departmental advisors and research collaborators and bestowed sponsorship and donations on PolyU to express their gratitude.

As RPg education evolves, PolyU Graduate School captures the present to reach as high and far as we can.



# Interview with Sr Tsui Hoi Yuen Paul

MPhil alumnus, Land Surveying (1994)  
CEO, Esri China (Hong Kong)



## "To 'Re-Search' the Best Solutions for an Unlimited Future"

Sr Tsui Hoi Yuen Paul, CEO of Esri China (Hong Kong), is actively taking an interdisciplinary approach to land surveying and information technology. He is an advocate of new applications and practical solutions in geographic information systems (GIS), which create, manage, analyse, and map all types of spatial data.

### Paul's MPhil Study at PolyU

Graduating from PolyU in 1994 with an MPhil in land surveying, Paul had a strong passion for knowledge and aspired to develop further after his research study. His MPhil journey was rewarding. To realise his academic excellence, his most visited facilities on campus were the library, where he strived to sharpen his language skills for literature reviews and presentations, and the computer centre, which had advanced yet scarce software at that time.

Paul is especially thankful for the guidance and support, as well as the studentship and development opportunities, offered by his supervisor.

Paul also had the invaluable experience of attending an international conference in San Jose (Silicon Valley) to present a research paper. One of his papers was published in the International Journal of Geographical Information Science after he received recognition from a distinguished overseas professor for his thesis assessment. Thanks to the support, resources, and exposure he was granted, along with his perseverance and hard work, Paul succeeded in his research study.





### Takeaways from MPhil Study and Post-study Development

GIS is an applied science and the training Paul received from his MPhil study was multidimensional, involving problem-solving capability, management, technical knowledge, and presentation. The exceptional development he experienced during his MPhil research studies prepared him with advanced soft skills and knowledge.

Upon graduation, Paul received a remarkable offer from Ordnance Survey in Southampton, UK, a world-renowned national mapping agency, where he was able to develop his GIS expertise. Two years later, an invitation from Esri China (Hong Kong) to expand its GIS projects was extended to him via the network at PolyU. Over the following 22-year journey, Paul demonstrated his expertise and innovative mindset to become the CEO he is today.

### GIS Applications

GIS is a fundamental building-block technology for smart cities. It is widely used to understand patterns and relationships in geographical contexts, which benefits communication efficiency and decision making.

Among its applications are the COVID-19 Local Situation Dashboard and combatting air pollution. This technology not only works on land but also in the sea and in space. PolyU's recent accomplishment in the Nation's mission on Mars is an excellent illustration of the massive power of spatial science.

Paul wants to take GIS to a new level by integrating the technology with building information modelling in land surveying to expand the scope of GIS applications.

### Paul's Advice and Insights about Tertiary Education

With ever-improving learning facilities and environments, research students are able to "re-research" and find innovative solutions to identified needs. Only with the personal qualities of determination and aspiration, together with developed capabilities, can we excel and go higher and further.

As an external advisory member of university departments, Paul is taking the lead in his professional network to propose an increase in admission quotas for land surveying in tertiary education. This is necessary to meet the surging demand for professional spatial data scientists and expedite the innovative development of smart cities.

Paul was pleased to share with us that a programme named "Map in Learning" was launched by his company for local primary and secondary school students as the future generations of GIS professionals.

We look forward to the visionary applications and positive impacts that GIS can bring to the world with Paul's inspiration.







In July, 50 participants gathered online for the Research Postgraduate Summer School 2022 organised by the Graduate School. They were selected out of 630 applications from students in senior undergraduate years and master's programmes from top universities around the world. The Summer School was specially designed to give participants a taste of PhD study and familiarise them with the support that PolyU offers. The 11-day programme was packed with a variety of activities, ranging from thought-provoking lectures to opportunities to consult faculty members. Preliminary admission offers were given to outstanding participants, inviting them to start PhD studies at PolyU.

### Opening by President and Vice-President (Research and Innovation)

The participants were warmly welcomed by the President Prof. Jin-Guang Teng with an opening speech on the latest developments at PolyU, and by the Vice President (Research and Innovation) Prof. Christopher Chao, who spoke about research excellence and support. The Dean of Graduate School then kick-started this summer journey by briefly introducing research postgraduate education.





## Research Excellence Showcase

As a world-class research university, we take pride in our innovative and advanced research. Representatives from six faculties and three schools showcased their research excellence at the Summer School, which allowed participants to pinpoint their direction for preparing their research proposal and study plan.

To inspire prospective PhD students, leading researchers from the PolyU Academy for Interdisciplinary Research (PAIR) introduced the research focuses of the research institutes (RIs) and research centres (RCs), giving participants a glimpse of novel and cutting-edge projects.

An intriguing virtual tour of the Industrial Centre was arranged to demonstrate the advanced facilities for realising innovative research ideas.



## Knowledge Enrichment

A series of activities were arranged throughout the programme to equip participants with the necessary skills to pursue PhD studies. Scholars from different disciplines were invited to a panel discussion on how to conduct good research and advised and pursue research studies. Workshops on academic writing, mental wellness and entrepreneurship primed students for their future research studies and career planning.

Two distinguished lectures were delivered by invited outstanding scholars, Prof. Yang Chai and Dr Franco Leung, on topics of applied physics and applied biology and chemical technology. Prof. Chai illustrated the concept of near-sensor and in-sensor computing and its implementation in physical sensing systems. Dr Leung shared his research on artificial molecular machinery, which will be an important technology in the near future. They generously offered insights and research experiences to our participants and ignited their passion for PhD study.



## Alumni and Student Sharing

In addition to the inspiring workshops and lectures, the Summer School invited distinguished research postgraduate alumni from different sectors to share their paths to success with our participants. Speakers included founders of listed companies, industry experts, and leading researchers in academia.

Some PhD students also shared their first-hand student life experience at PolyU and gave application tips for HKPFS. Such sharing gave a clear picture of what lies ahead for our prospective PhD students.



## Consultation with PolyU Faculty Members

One of the highlights of the Summer School was the opportunity to meet and consult professors in similar research areas. Participants asked about admission and sought advice on their research proposals. Preliminary offers were given by potential supervisors to outstanding students after further individual meetings for in-depth discussions on academic achievement, research capability and aspiration.

## Research Proposal Presentation

At the end of the Summer School, it was time for our participants to come forward and showcase their talents. They presented research proposals to reflect on what they had learnt on this journey and demonstrate their capability for pursuing research studies.

We look forward to meeting our new research students at PolyU soon!

# Event Highlights

## Distinguished Speaker Series- Safety Challenge of Cyber-Physical Systems

**Knowledge does not only appear in the form of depiction, but in a superior form of creating it.**



**Professor Lui SHA**

University of Illinois at Urbana-Champaign  
Distinguished Speaker



**Professor Christopher CHAO**

Vice President (Research and Innovation)  
Opening and Welcome Speech



**Professor Jiannong CAO**

Dean of Graduate School  
Seminar Host

GS launched the Distinguished Speaker Series in January 2022. In the seminar on 12 May 2022, Prof. Lui Sha, Chair Professor in Computer Science of the University of Illinois at Urbana-Champaign (UIUC), shared his knowledge of the safety of cyber-physical systems with around 300 attendees. The Vice President (Research and Innovation) welcomed Prof. Sha. The Dean of Graduate School hosted the event.

Machine learning is the use of data and algorithms to imitate human intelligence. In the development of applications for unmanned aerial vehicles and self-driving cars, there

is a common concern for safety and reliability. By adopting an approach based on physics, systems become simple to model and verify as they learn. With design principles to control complexity, resources also need to be allocated based on risk perception.

Prof. Sha also touched on the healthcare domain, in which artificial intelligence is deployed in medical operations and pharmacy, and as a preventative measure for errors, in an interdisciplinary manner. The Q&A session summarised the seminar, where Prof. Sha further explored the role of physics in the subject, with the last question raised by Prof. Cao.

The PolyU Graduate School Distinguished Speaker Series is dedicated to opening doors for future and current students, as well as alumni, so that they can experience world-class scholars and interdisciplinary experts sharing the latest research technology and knowledge.

## GS Community- Share, Communicate, and Network



To enhance peer communication and user experience, GS connected with academic staff and research students over the past months.

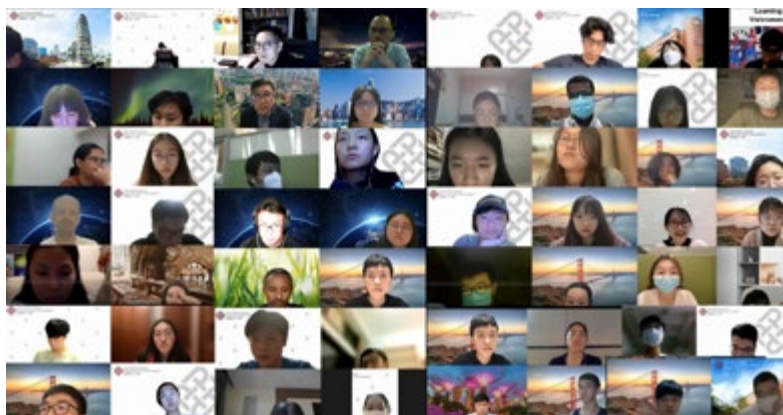
On 28 June 2022, a consultation session with scholars of STEM (Global STEM Professorship Scheme) and SHS (the University's Strategic Hiring Scheme) was organised to learn RPg education best practices from them in their previous universities. A separate departmental follow-up meeting was also hosted to clarify

concerns.

On 29 July, 12 August and 26 August 2022, GS has also launched three RPg student gatherings to open an effective platform between fellow students and GS representatives in a relaxed ambience. Students from diverse research backgrounds mingled and shared their learning and life experiences. Given its popularity, regular research student gatherings will continue to bolster networking and create a sense of belonging.

With concerted efforts from all key stakeholders in the community, GS aims to serve as an advocate and resource for research postgraduate education.





## URIS Orientation and CURI Residential College Seminar- **Nurturing Future Researchers**

From 1 December 2021, the Undergraduate Research and Innovation Scheme (URIS) and the virtual College of Undergraduate Researchers and Innovators (CURI) have been administered by the Graduate School to nurture future researchers through undergraduate research.

It is encouraging to note that an enhanced intake quality in the second cohort of URIS is evidenced by an increase in interdisciplinary group projects and a higher average admission score. A new guideline was developed to improve the operation of the scheme.

On 7 September 2022, an Orientation was arranged by CURI at the Homantin Halls for the second cohort of URIS, recruiting over 200 students. Opening and introductory sessions were delivered by representatives: Vice President (Research and Innovation) Prof. Christopher Chao, Vice President (Student and Global Affairs) Prof. Ben Young, Dean of Students Prof. Albert Chan, GS Associate Dean Prof. Louise Cummings and Associate Head and

CURI Residential College Master Prof. Horace Mui. "URIS is the anchor for discovery-driven undergraduate research with extensive development opportunities to nurture future researchers", Prof. Christopher Chao expressed.

On 30 March 2022, an online talk on "Pursuing Research Postgraduate Studies: Why & How?" was delivered as part of the Seminar Series of the CURI Residential College (CURI RC) by Prof. Jiannong Cao, Dean of Graduate School. Nearly 90 CURI residents across multiple disciplines joined the evening talk. In the Q&A session, students asked about approaching a potential supervisor, choosing an interdisciplinary research subject, seeking postdoctoral fellowships, and developing time management skills, among other issues.

Later in this issue, the research experiences of URIS student representatives are covered.

# Students' Sharing

## Interview with Awardee of Ernst Mach Grant Worldwide, Ekaterina Chevtaeva

**The Ernst Mach Grant provides an excellent opportunity to collaborate with scholars and researchers across any university in Austria, for a new and different perspective on the research.**



In 2021, Ekaterina Chevtaeva, a former PhD student at the School of Hotel and Tourism Management (SHTM), was awarded the prestigious and competitive Ernst Mach Grant Worldwide of the Eurasia-Pacific Uninet by the Agency for Education and Internationalisation. Ekaterina had the opportunity to conduct a 3-month project titled "Post COVID-19 employee experience in a digital nomad mode" at the University of Salzburg in Austria. Her research revealed a new approach to interpreting and differentiating digital nomads' "coworkation" experiences in the hospitality industry.

### What motivated you to apply for this Grant?

During the pandemic, it was difficult for students to establish research networks and collaborate personally with overseas researchers. Despite the challenge, I aspired to broaden my global engagement. I found out about the grant through the PolyU alumni network. I was assisted in my application with ample financial support from the university and the helpful recommendation of my supervisor.

### How did you prepare yourself for the application and selection?

Early preparation was key. My first task was to identify a timely research topic of mutual interest with the host supervisor. It was important to prepare the paperwork and search in advance for classes in Austria. In the shortlist and panel interviews, I

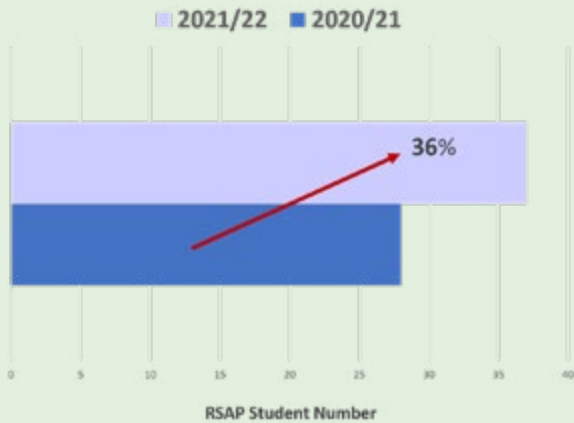
emphasised the novelty of the research and the significance of my research idea for the benefit of the world. It was better to keep the answers concise and direct.

### What was the best experience during the study?

My experience abroad was amazing! The grant offered me a priceless opportunity to undertake research practice with an international outlook. It also sharpened my skills in time management, research capability, and work efficiency. In my spare time, I enjoyed admiring Hallstatt's beautiful scenery, growing personal connections, playing sports, and visiting museums. It was a great experience to immerse myself in the Austrian local culture. My handiest tip is to get a bicycle and travel around to enjoy Austria's beautiful nature and maintain a healthy lifestyle.



# Increase in Participants in Research Student Attachment Programme (RSAP)



Internationalisation is a development focus of GS. From 2020/21 to 2021/22, there was an increase of 36%\* in the number of participants in the Research Student Attachment Programme (RSAP), covering both inbound and outbound visits to top universities around the world. As the pandemic stabilises, the number of incoming and outgoing students can be expected to increase further.

\* Data as of the article submission deadline

## Student Sharing of Attachment Experience



I was inspired by research sharing and discussion with reputable academics and worldwide researchers in my three-month visit to Imperial College London. As a member of IoT projects at Imperial College, I received compliments that boosted my confidence tremendously. The precious friendships I gained will be a treasure for my further journey in academia.

**Chen Qianyi, Computing**  
**Outgoing Student to**  
**Imperial College London 2021/22**

My RSAP experience at PolyU was pleasant despite the pandemic. I had many meaningful and sincere interactions with renowned scholars, students, and staff members during weekly lab meetings. I was open to a new lab community and learnt about my research from a different perspective. The connection will last even after the programme.



**Chan Ariel Shuk Ling, Chinese and Bilingual Studies**  
**Incoming Student from**  
**The University of California, Los Angeles 2021/22**



## Sharing from Undergraduate Researchers

URIS is a prestigious programme designed to develop academic curiosity and enquiry-based learning among undergraduate students. In December 2021, four selected project teams presented their innovative research ideas in a student sharing session to a representative of the Lee Wan Keung Charity Foundation, which has made a generous donation to support undergraduate research. Interviews were conducted with the project teams to learn about their experiences in undergraduate research.



Research Project:

***"Impacts of off-axis astigmatism on short-term refractive and ocular biometric changes"***

Liu Wai Cheung and Tai Cheuk Yiu, SO  
Chief Supervisor: Dr Leung Tsz Wing

We had a keen interest in conducting research and URIS was a taster. One of the most attractive parts of this scheme was the chance to exchange knowledge with other research students. Research studies can bring hypothetical ideas to life. We enjoyed the process of building a new theoretical concept and bringing it to fruition. In our research, we hypothesised that off-axis stigmatism helped decode defocus information and investigated its effect on refractive and ocular biometric changes. As optometry students, we hope that the project outcomes will help protect everyone's vision and have a positive societal impact.

The research experience at URIS was challenging yet rewarding. URIS gave us opportunities to learn from supervisors and other researchers through seminars and discussions. We learned that research is not limited to personal research interests and can be extended to real-life applications for the betterment of society. By participating in URIS, we aspire to become competent researchers, solve common vision problems, and develop better ways to protect vision. We hope that our story inspires other undergraduate researchers.

Research Project:  
***"Study of Fire Impact on Glass Panels of Modern Buildings"***

Lam Ying Tung, Doremi, BEEE  
Chief Supervisor: Dr Jiang Liming



With the support of URIS, I had the opportunity to conduct fire safety research under the guidance and supervision of Dr Jiang and study the impact of fire on glass panels in modern buildings. Using the high-fidelity fire simulation PyroSim and laboratory tests, I studied the internal pre-fracture impact of fire and its external impact post-fracture. The aim of the research was to develop innovative designs

for a safer glass system. Having read many research papers on technology advancement, I aspire to learn more about the field of fire safety engineering and its development. In the future, I would like to pursue further research and become an expert in fire and safety engineering.



Research Project:

***"Development of a Collaborative UAV Simulation Platform for Smart City Applications"***

Su Mei-ling, Ahad Sugata, Shiu Wai Ching Lucas and Huang Xinyue, AAE  
Chief Supervisor: Dr Hsu Li-Ta

To lay the foundation for postgraduate studies, we came to URIS to learn research skills. URIS gave us opportunities to make decisions about career directions, develop our profiles, and learn from excellent academic staff. URIS boosted our motivation to conduct research that will benefit mankind.

Being lovers of new technology, we could not be more interested in contributing to technology of the future. High-density cities such as Hong Kong, Tokyo, and New York have been moving towards automation to ease the burden of urban living,

and to provide a timesaving yet safe environment for their citizens. In our research, we built a new simulator called UnmannedSim and incorporated real-life errors. We gained value-added experience through URIS to learn and create knowledge. We enriched our university life, reflected on our career goals, and made friends with fellow team members and Dr Hsu. If possible, we would like to pursue PhD studies at PolyU. Our research interests would be global navigation satellite systems and GPS positioning. We would do our best to make our contributions meaningful.

Research Project:  
***"Development of Carbon Emission Quota (CEQ) Theft Detection Platform: Towards Carbon Neutrality Future"***

Zhu Zixuan, Electrical Engineering, EE  
Chief Supervisor: Dr Bu Siqi



I wanted to experience academic research early on to find out more about it. URIS allowed me to explore the research experience extensively. The objectives of my project were to develop an innovative carbon emission quota (CEQ) prediction and theft detection platform and design effective penalty mechanisms to prevent malicious carbon emission behaviours.

Getting into research was difficult for me because I lacked background knowledge and special skills, such as programming. I was finally able to implement my research plans after reading articles and acquiring the necessary skills under the

guidance of my supervisor. That gave me a sense of achievement and kept me motivated.

The importance of self-study is the main takeaway of my URIS experience. The interdisciplinary differences between electrical engineering (my undergraduate discipline) and data analysis and machine learning (my URIS project area) meant I had to continuously learn about a new subject area. This taught me the importance of self-study which is the key to interdisciplinary research. Because of the excellent research experience I gained from URIS, I decided to pursue PolyU's PhD programme and continue to work on my research area in more depth.

# Student Achievements

## PhD Student in COMP Honoured with HKICT Student Innovation Grand and Gold Awards



Jackal Xu Zhenda, a PhD student from the Department of Computing (COMP), teamed up with a collaborator from the Chinese University of Hong Kong and won the Student Innovation Grand Award and the Gold Award for Student Innovation (Tertiary or above) in the Hong Kong Information and Communications Technology (ICT) Awards 2021. The awards were overseen by the Office of the Government Chief Information Officer and organised by Hong Kong ICT industry associations and professional bodies.

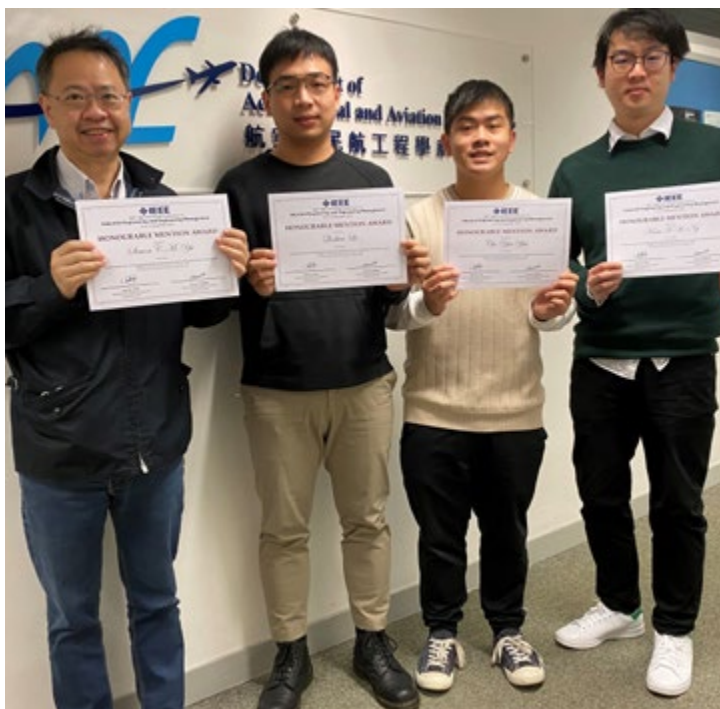
The winning project, "Dr Body-Scan", was a professional medical infrared analyser tailored for the 3D evaluation of scoliosis (spinal curvature). Merging traditional X-rays with AI technology, the innovative interdisciplinary design enables safe and reliable detection of scoliosis and long-term analysis of non-surgical cases. It also assists in the rehabilitation of scoliosis and other postural problems. "I thank COMP and my instructor, Prof. Guo, for the support", Jackal shared. "I hope Dr Body-Scan can serve primary and secondary school students in Hong Kong from 2022, especially children and teenagers who have abnormal spinal curvature".



## Excelling in Hong Kong Techathon 2022 with Cash Prize by the HTI Team

He Ze Bang, a PhD student from the Department of Health Technology and Informatics (HTI), paired up with PhD alumni Dr Yeung Ho Yin Martin and Dr Wong Alex Ngai Nick to win the second runner-up prize in the Humanities and Health Tech category at Hong Kong Techathon 2022 with a cash prize of HK\$2,000. The team pitched their idea for a future business in the Techathon, and stood out from the crowd in popular innovation and entrepreneurship competitions in various fields. Co-organised by the Hong Kong Science and Technology Parks Corporation (HKSTP) and local higher education institutions, the Techathon event attracted the attention of future entrepreneurs in Hong Kong.

After winning at Techathon 2022, the team were admitted to the IDEATION competition run by HKSTP to seek funding of up to HK\$100,000. Their passionate drive also helped them secure a top-three honour in the PolyU Student Entrepreneurial Proof-of-Concept (POC) Funding Scheme, winning a cash prize of HK\$15,000 and a boot camp training.



## Shining Moment for PhD Students of AAE at 2021 IEEE Conference

Two PhD students from the Department of Aeronautical and Aviation Engineering (AAE), Li Qinbiao and Yiu Cho Yin, were shortlisted for the Outstanding Paper Award at the 2021 International Conference of the Institute of Electrical and Electronics Engineers (IEEE), on Industrial Engineering and Engineering Management (IEEM). Their paper, "Situational Awareness and Flight Approach Phase Event Recognition Based on Psychophysiological Measurements", was prepared under the supervision of Prof. Simon Yu and Dr Kam Ng of AAE. Only the top 3% of all submissions were selected. After the outstanding presentation by Qinbiao, the paper earned an honourable mention.

# AlumniCommunications



In celebration of the University's 85th anniversary in 2022, the inaugural Outstanding Research Postgraduate Alumni Award was organised by PolyU Graduate School. The award recognises the distinctive accomplishments of our PhD/MPhil alumni and their impactful contributions to professions, research, and entrepreneurship. Among many nominations, five distinctive alumni were honoured. Four received an Outstanding Research Postgraduate Alumni Award and one received an Outstanding Early Career Research Postgraduate Alumni Award.

54 award nominations were submitted to the Graduate School. A panel of judges consisted of the Vice President (Research and Innovation), Dean and Associate Dean of the Graduate School and PolyU academic and outstanding RPg alumni representatives. Assessment criteria included the nominee's accomplishments and recognition in the profession or industry, scholarly and research achievement, contribution to innovation and the development of business or technology venture.

PolyU nurtures research postgraduate talents for sustainable and positive impacts that address global challenges. Capitalising on their research strengths and visions, RPg alumni manifest their innovative research aspirations, engage in the PolyU GS alumni community, and contribute to societal development.

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## Outstanding Research Postgraduate Alumni Award



**Dr Ho Wai-ming Goman**  
**Arup Fellow and Director of Innovation, Arup Group**  
**Doctor of Philosophy 1992**

A world-renowned expert in tall building design, Dr Ho is behind many of the most challenging and innovative skyscrapers in Asia, including the 283-metre tall Cheung Kong Center in Hong Kong and the 528-metre tall CITIC Tower in Beijing. He is the first Chinese structural engineer to become an Arup Fellow. His patented hybrid outrigger system won the Hong Kong CIC Innovation Award in 2017 and the Hong Kong Innovation Award in 2020. Ten of his projects, ranging from ambitious structures to green buildings, have received a total of 18 awards from Hong Kong and international professional institutions.

**Prof. Lin Zhouchen**

**Professor, School of Artificial Intelligence, Peking University**  
**Master of Philosophy 1998**

Prof. Lin is a world-recognised researcher in computer vision and machine learning. He has published four monographs and over 210 papers in top journals and conferences, receiving over 24,000 Google Scholar citations. He has been the Area Chair of many top AI conferences, including CVPR, ICCV, NIPS/NeurIPS, AAAI, IJCAI, ICLR, and ICML. He was also the programme Co-Chair for ICPR 2022 and Senior Area Chairs for ICML 2022 and NeurIPS 2022. He won the first prize of the China Computer Federation Natural Science Award in 2020 for his work on low-rank models. He is a Fellow of CSIG, IAPR, and IEEE.

**Mr Luo Weidong Chris**

**Co-founder, Chairman and CEO, Aurora Mobile Limited**  
**Master of Philosophy 2007**

Mr Luo co-founded Aurora Mobile Limited in 2011, managing to attract multiple world-renowned investors such as IDG, Fidelity, and Goldman Sachs to invest in the company. Aurora Mobile was listed on the Nasdaq (NASDAQ: JG) in 2018 with a market value of more than USD1 billion, the first company of its kind on the US stock exchange. It is the leading mobile app developer service platform in China and has worked with more than 648 thousand developers on over 1.8 million mobile apps. The company currently has over 500 employees in five locations in China.

**Ir Prof. Zheng Yongping**

**Chair Professor of Biomedical Engineering,**  
**Henry G. Leong Professor in Biomedical Engineering,**  
**The Hong Kong Polytechnic University**  
**Doctor of Philosophy 1997**

Prof. Zheng is the founding Head of the Department of Biomedical Engineering and the founding Director of the Jockey Club Smart Ageing Hub and the Interdisciplinary Research Institute for Smart Ageing. His project on a palm-sized 3D ultrasound imaging system for radiation-free scoliosis assessment won the Grand Award, Gold Medal, and Special Merit Award at the 47th International Exhibition of Inventions of Geneva. He also owns more than 50 patents and has published over 280 journal papers. He was rated as a top 2% citation scholar in the area of artificial intelligence and image processing in a survey conducted by Stanford University in 2021.



## Outstanding Early Career Research Postgraduate Alumni Award

**Dr Li Siyang Liam**

**Co-founder and CEO, Goal Technology (Shenzhen) Co., Ltd**  
**Doctor of Philosophy 2019**

Dr Li is the co-founder of Goal Technology (Shenzhen) Co., Ltd, which specialises in producing high-precision manufacturing equipment and motors. The company had an initial start-up value of RMB10 million and sales reached RMB30 million in 2021, with a team of 60 employees in two office locations in China. He was selected by Forbes China 2020 as one of 300 elite entrepreneurs and leaders for its "30 Under 30" list in the "Industry, Manufacturing, Energy and Environmental Protection" category.





# Launching the GS Mainland Alumni Network



On this remarkable 85th anniversary of PolyU, The Hong Kong Polytechnic University Graduate School Mainland Alumni Network (PolyUGSMAN) was officially launched on 2 June 2022 to underpin alumni communication and strive for research collaboration in Mainland China.



Aiming at building a mutual platform for exchanges and cooperation between mainland alumni in scientific, translational, or applied research and their alma mater, a group of enthusiastic RPg alumni took the initiative to form an organising committee for the alumni network in late 2021. On 25 May 2022, an executive committee led by Dr Xue Jianbin, who graduated from the Department of Industrial and Systems Engineering (ISE), was successfully elected. Until September 2022, the membership has reached around 500.

**PolyUGSMAN is now inviting the following groups who work or live in Mainland China to register and become a member:**

- (1) Doctor of Philosophy (PhD) and Master of Philosophy (MPhil) graduates, current students, or former students;
- (2) Graduates of other degrees engaged in academia; and
- (3) Teachers, postdoctoral fellows, visiting scholars, and other researchers who have worked with PolyU and its forerunners.

**Join PolyUGSMAN:**



**Join PolyU RPg Alumni and Researchers WeChat Group:**





## Academic-Entrepreneur in Precision Surface Metrology

Dr Ren Mingjun graduated with a PhD degree from the Department of Industrial and Systems Engineering (ISE) in 2012. Currently an Associate Professor in the School of Mechanical Engineering of Shanghai Jiao Tong University, Dr Ren's main research focus is precision instrumentation and measurement for aircraft cabins and micro/nanostructures. In the past 5 years, Dr Ren has secured RMB30 million from the National Natural Science Foundation of China and become the Chairman of a spin-off company that specialises in manufacturing various ultra-precision machine tools and ultra-high precision optical components.



**M**y PhD journey in PolyU has been an amazing experience. I have gained insightful and intensive training for research, accelerating my career in academia. Special thanks to my supervisor Prof. Benny Cheung for the developmental opportunities and encouragement he provided.



## HKPFS alumnus in Faculty at Tsinghua University

HKPFS awardee Dr Wang Kai joined Tsinghua University as an Assistant Professor in smart transportation in the spring of 2022. After obtaining his PhD degree from the Department of Logistics and Maritime Studies (LMS) in 2019, Dr Wang was a postdoctoral associate at the Sloan School of Management at Massachusetts Institute of Technology and later a research scientist at Heinz College at Carnegie Mellon University. His research spans optimisation and applications in smart transportation and logistics systems.





## Postdoctoral Fellowship for Optometry Alumnus at John Hopkins

PhD alumna Dr Seema Banerjee started her postdoctoral fellowship at Wilmer Eye Institute of the School of Medicine, Johns Hopkins University, after graduating from the School of Optometry (SO) in 2021. The Wilmer Eye Institute is a world-class leader specialising in ophthalmology, sight correction, and optical and diagnostic services.

Dr Banerjee described how PolyU helped her to grow into a meticulous researcher. Her supervisor, Dr Pan Feng, guided her research work on neuro-retinal visual signalling processes in myopia. "I was encouraged to pursue my dream, and I am forever thankful to PolyU", Dr Banerjee shared.

## Alumnus as First Palestinian Nurse in the World Health Organization Expert Network

Dr Hammuda Abu-Odah, notably the first PhD graduate of his nationality and a postdoctoral fellow of the School of Nursing (SN), is the first Palestinian nurse in the World Health Organization (WHO) Eastern Mediterranean Region Expert Network on Palliative Care.

In the next two years, Dr Abu-Odah will cooperate with regional and international experts to highlight the critical need for palliative care and improve its awareness and delivery. He hopes to actively participate in training and disseminating research knowledge in low- and middle-income countries, particularly in the Gaza Strip.





# Upcoming Events



## Orientation for Research Postgraduate Students 2022/23 13 October 2022

New research postgraduate students for the 2022/23 academic year will join an orientation to familiarise themselves with the study lifecycle and available learning and development opportunities.

## PolyU Graduate School Outstanding Research Postgraduate Alumni Award Presentation Ceremony November 2022

An award presentation ceremony will be held in November in honour of outstanding RPg alumni who have made remarkable achievements in their professions, research, and entrepreneurship.

## ReachGS #PolyUGS



PolyU GS Website



PolyU Alumni Portal

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