

建設與環境



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

FACULTY OF CONSTRUCTION AND ENVIRONMENT
建設及環境學院

CONSTRUCTION & ENVIRONMENT

The Magazine of the Faculty of Construction and Environment

建設及環境學院院刊



No. 19. (Published in June 2020)

Opening Minds • Shaping the Future

啟迪思維 • 成就未來

Contents

目錄

Dean's Message 院長的話	2
Awards & Achievements 優秀學者 成績斐然	3
QS World University Rankings by Subject 2020	3
2020 年 QS 世界大學分科排名	3
FCE Recipients of RGC Grants Congratulated by VPRD	3
前副校長發信恭賀本院學者多次獲研資局撥款	3
Recognition for System Developed by Construction Health and Safety Research Group	4
建造業健康及安全研究小組研發的系統獲獎	4
BSE Scholars Reap Rewards of Research	4
屋宇設備工程學系學者獲國家教育部研究獎	4
BSE Scholar to Receive Proulx Early Career Award	5
屋宇設備工程學系學者榮膺 Proulx 青年科學家獎	5
BSE Scholar Elected VP of CIE	5
屋宇設備工程學系學者獲選香港照明學會副會長	5
New Invention by CEE Scholar	5
土木及環境工程學系學者新發明	5
Accolades for Distinguished Chair Professor of CEE	6
土木及環境工程學系傑出講座教授連奪兩獎	6
Structural Excellence Award for CEE Academic	6
土木及環境工程學系學者奪卓越結構獎	6
CEE Scholar Honoured by CAPEES	6
土木及環境工程學系學者獲嘉獎	6
LSGI Scholar Receives Leader of the Year Award	7
土地測量及地理資訊學系學者榮膺傑出領袖獎	7
LSGI Scholar Elected to HK Meteorological Society	7
土地測量及地理資訊學系學者獲選香港氣象學會執委	7
Research and Teaching Awards for Young LSGI Scholar	8
地測量及地理資訊學系年輕學者獲科研及教學獎項	8
HK PhD Fellowship Scheme 2020/21	8
2020/21 香港博士研究生獎學金計劃	8
Endowed Professorships for FCE	9
建設及環境學院喜添兩位勵學教授	9
Research Activities 研究薈萃	10
Research Impact Fund 2019/20	10
2019/20 研究影響基金	10
PROCORE France/ HK Joint Research Scheme 2019/20	10
2019/20 年度法國 / 香港合作研究計劃	10
BSE Scholar Supported by ITF	10
屋宇設備工程學系學者獲創新及科技基金資助	10
CEE Academics Awarded Funding for Research on Hong Kong-Zhuhai-Macau Bridge	11
土木及環境工程學系學者獲資助開展「港珠澳大橋」研究	11
CEE Scholar Coauthored Article in Nature Sustainability	11
土木及環境工程學系學者合著論文獲《自然永續發展》刊登	11
LSGI Scholars Develop System to Monitor SO ₂ Emission	12
土地測量及地理資訊學系學者研發二氧化硫排放監察系統	12
LSGI Scholar's Scientific Approach to Keep New Virus off Campus	12
土地測量及地理資訊學系學者以科學方法助校園防疫	12
Navigation Research in Fight Against Pandemic	12
導航研究助香港抗疫	12
Large Equipment Fund for Research	13
大型設備基金	13

Funding of Projects of Strategic Importance 策略性研究項目獲大學資助	13
PolyU Postdoctoral Fellowship Scheme 2019 理大 2019 年度博士後研究員資助計劃	13
Funding for MOOC to Introduce Fire Safety Engineering 理大撥款編訂消防工程大型共用網上課程	14
Teaching Development Grants for FCE Colleagues 建設及環境學院同事獲理大批出教學發展資助	14
FCE Matching Fund for External Competitive Research Grants 建設及環境學院校外競爭性撥款配對基金	15
FCE Projects of Strategic Importance Scheme 建設及環境學院策略性研究項目	16
FCE Postdoctoral Fellowship Scheme 建設及環境學院「博士後研究員資助計劃」	16
Joint Supervision Scheme with Chinese Mainland, Taiwan and Macao Universities 2019/20 2019/20 年度中國內地、台灣及澳門大學博士生聯合指導計劃	17
Staff News 教職員消息	18
Staff Promotions 晉升之喜	18
Head of LSGI to Lead SCRI 土地測量及地理資訊學系系主任出掌智慧城市研究院	21
BRE Scholar Appointed to Task Force on Subdivided Units 建築及房地產學系學者加入政府「劏房租務管制研究工作小組」	21
Donation of Face Masks by CEE Scholar 土木及環境工程學系學者向理大捐贈口罩	21
Student News 學生消息	22
Most Outstanding PolyU Student Award 2019 理大最卓越學生獎 2019	22
BSE Student Wins Prestigious Scholarship 屋宇設備工程學系學生獲「潘宗光教授獎學金」	22
FCE One-Year Top-up Studentship Scheme 建設及環境學院「博士生一年制補助獎學金計劃」	22
MSc Scholarship Students Graduate with Distinction 獎學金得主以優異成績畢業	23
Alumni News 校友消息	24
CEE Alumnus Elected VP of PolyU Alumni Association 土木及環境工程學系校友獲選理大校友會聯會副會長	24
Alumni Donations to Benefit FCE Students 傑出校友捐款惠澤本院學生	24
Events 活動剪影	25
Guangdong-Hong Kong-Macau Joint Laboratory of Environmental Pollution Processes and Control Launched 粵港澳大灣區環境污染過程與控制聯合實驗室成立	25
NSFC Workshop 國家自然科學基金工作坊	26
BSE Academic Featured on TV 屋宇設備工程學系學者接受電視訪問	26
Webinar on Smart Water Technologies 智能水務技術網上研討會	26
Taught Postgraduate Information Seminar Held Online 授課式碩士課程資訊講座改以網上形式舉行	27

Dean's Message

院長的話



Over the past few months, the world has been gripped by a new coronavirus, which has prompted lockdowns in varying degrees all over the world. The preventive measures taken in Hong Kong have inevitably led to many challenges for the Faculty of Construction and Environment (FCE). While teaching and learning have been

moved online, international collaboration and student exchanges have been reduced. Even so, FCE has strived not only to stay afloat, but also advance its long-term interests and vision.

In the fight against Covid-19, the PolyU community has been united in its efforts, from the donation of 10,000 face masks to the university by a staff member to navigation research that helps to monitor home quarantines to remote infrared body temperature measurements.

In terms of education, we are pleased that one of our final-year students received the Most Outstanding PolyU Student Award 2019. We were also awarded 10 Hong Kong PhD Fellowships for 2020/21. Our research has been strengthened with the establishment of the Smart Cities Research Institute, the award of a Research Impact Fund from the Research Grants Council, and a Leader of the Year Award in the Education/ Professions/ Technology & Innovation category for one of our academics. In addition, we were honoured to have two more endowed professorships for our Faculty, which brings the total in FCE to 5.

Our alumni has continued their generous support of our work. One of them donated HK\$1 million for our students to gain first-hand experience of studying outside Hong Kong, while another was elected a Vice President of the Federation of PolyU Alumni Associations.

Our 2020 QS rankings for Civil and Structural Engineering was in 19th place, while Architecture/ Built Environment was in 22nd place. These achievements together with other individual awards by our students and staff will ensure our reputation, joy, and prosperity for the near future.

Ir Prof. You-Lin Xu
Dean of Faculty of Construction and Environment
Yim, Mak, Kwok & Chung Professor in Smart Structures
Chair Professor of Structural Engineering
The Hong Kong Polytechnic University

近幾個月來，全球受新冠病毒蹂躪，導致各地推行不同程度的封城。香港的防疫措施自然對建設及環境學院帶來不少挑戰。我們雖可改用網上教學，但國際合作和學生交流難免減少。儘管如此，本院在克服難關之餘，更力求拓展和促進長遠利益及視野。

在抗疫之戰裡，除了有熱心同事向大學捐贈一萬片口罩，亦有學者利用導航技術協助監察居家隔离情況，以至研發遠紅外線量度體溫措施。

在教研方面，我們亦屢獲佳績：本院一位畢業班同學榮膺2019年理大「最卓越學生」殊榮；在2020/21年度，共有十位申請人獲「香港博士研究生獎學金計劃」入讀本院；而智慧城市研究院的成立進一步增強了我們的科研能力；本院學者繼獲研資局「研究影響基金」撥款，又於教育/專業/科技及創新組別奪得「傑出領袖獎」。另外，本院在期內更新增兩席勵學教授席，使總數增至五席。

校友對我們的鼎力支持亦絲毫不減：其中一位慷慨捐出一百萬港元，資助同學到香港以外的地區學習，爭取經驗；另一位校友則獲選理工大學校友會聯會副會長，為回饋母校出力。

國際排名方面，根據2020 QS排行榜，理大在「土木工程及結構工程」及「建築/建造環境」兩個領域分別高踞第19及22位，加上師生摘取的其他個人獎項，在在顯示建設及環境學院穩步向前，聲譽不衰，使人欣喜。

徐幼麟教授工程師
香港理工大學建設及環境學院院長
嚴、麥、郭、鍾智能結構教授
結構工程講座教授

QS World University Rankings by Subject 2020

In the Quacquarelli Symonds (QS) World University Rankings by Subject 2020, the Faculty of Construction and Environment (FCE) has one discipline in the top 20. The ranking for Civil and Structural Engineering was in 19th place, while Architecture/ Built Environment was in 22nd place. As a university, PolyU was ranked 91st, up from last year's position of 106th. In Asia alone, PolyU was ranked 24th. A recognition of its efforts in teaching and research, the jump in rankings from the year before is highly encouraging.

Launched in 2011, the annual QS World University Rankings by Subject is a comprehensive guide to a range of subjects. The rankings list the world's top universities based on their academic reputation, employer reputation, and research impact, which is reflected in the citations per paper and an H-index that measures both the productivity and impact of a scholar's published work.

2020 年 QS 世界大學分科排名

根據2020年的QS世界大學分科排名，建設及環境學院在「土木及結構工程」領域登上第十九位，晉身全球二十強之列；而在「建築/建造環境」範疇，本院亦名列第二十二位。全球大學排名方面，理大亦從去年的第一百零六位晉升至第九十一位。單以亞洲而論，則位列第二十四名。理大名次躍升，足證大學在教研的努力成果獲肯定。

始於2011年的QS世界大學分科排名，每年公佈一次，涵蓋廣泛學科。全球頂級大學的排名，是根據學術聲譽、僱主口碑和科研影響力等因素決定。所謂科研影響力，是以每份論文的獲引用次數和H-指數為衡量標準，而H-指數則是估算學者著作數量及影響力的指標。

FCE Recipients of RGC Grants Congratulated by then VPRD

The Faculty of Construction and Environment (FCE) is pleased that 8 of its academics have been exceptionally successful in their applications for the General Research Fund (GRF) from the Hong Kong Research Grants Council (RGC) over the past few years. They were congratulated in a recent letter from the then PolyU's Vice President (Research Development), Prof. Alexander Wai, who said that their personal achievements had enhanced PolyU's reputation for research and set high standards for other colleagues to follow. Following are the details:

前副校長發信恭賀本院學者多次獲研資局撥款

過去數年，建設及環境學院有八位學者在申請香港研究資助局「優配研究金」方面表現卓越。最近，這些學者更獲時任理大副校長(科研發展)衛炳江教授發信恭賀，稱讚他們的個人成就提升了理大在研究領域的聲譽，並為其他同事樹立良好榜樣。以下是獲表揚的學者資料：

Name (Dept) 學者 (學系)	Position 職銜	No. of Times Awarded 獲資助次數
Dr JoonOh Seo (BRE) 徐準晔博士 (建築及房地產學系)	Assistant Professor 助理教授	3 years in a row 連續三年
Prof. Mingli Chen (BSE) 陳明理教授 (屋宇設備工程學系)	Professor 教授	4th time in past 5 years 五年內四次
Prof. Shiming Deng (BSE) 鄧仕明教授 (屋宇設備工程學系)	Professor 教授	4 years in a row 連續四年
Prof. Ya Ping Du (BSE) 杜亞平教授 (屋宇設備工程學系)	Professor and Associate Head 教授兼副系主任	3 years in a row 連續三年
Prof. Shengwei Wang (BSE) 王盛衛教授 (屋宇設備工程學系)	Chair Professor 講座教授	4th time in past 5 years 五年內四次
Prof. Yuhong Wang (CEE) 王予紅教授 (土木及環境工程學系)	Professor 教授	5 years in a row 連續五年
Prof. Jianhua Yin (CEE) 殷建華教授 (土木及環境工程學系)	Chair Professor 講座教授	4 years in a row 連續四年
Prof. Xiaoli Ding (LSGI) 丁曉利教授 (土地測量及地理資訊學系)	Chair Professor and Associate Dean (Partnership) 講座教授兼副院長 (協作)	3 years in a row 連續三年

Recognition for System Developed by Construction Health and Safety Research Group

A licensed technology of an early heat-stress warning system that was developed by the Construction Health and Safety Research Group of PolyU and incorporated into SmartWorks, an end-to-end solution provided by Smartone Mobile Communications Ltd. to promote and manage worksite safety, has won the 1st Prize of the CIC Construction Innovation Award 2019 in the category of Construction Safety. Led by Prof. Albert Chan, Head of the Department of Building and Real Estate (BRE), his research group pioneered the early-warning system to monitor the heat strain levels of workers when they are performing their tasks in hot weather. An indispensable component of SmartWorks is the Heat Stress Artificial Intelligence Engine, which integrates technologies with 5 key smart services, namely, Smart Helmet, Smart Health Station, Environment Station, Dump Truck Management and Danger Alert & Access Control. It is a prime example of what can result from a close collaboration between academe and industry.

The Construction Innovation Award was organized by the Construction Industry Council (CIC) on a biennial basis since 2015, with the aim to spearhead the development, promotion and implementation of new construction materials, methods, technologies for enhancing the competitiveness of the construction industry. The same research group won the Local Grand Prize of the Inaugural Construction Innovation Award in 2015 for their innovative development of anti-heat stress uniforms, which have been adopted as a standard work wear for construction workers in all government funded projects since 2017.

建造業健康及安全研究小組研發的系統獲獎



由數碼通電訊集團有限公司提供的智安健綜合平台，在2019建造業議會創新獎中勇奪建造安全組第一名。該綜合平台獲理大建造業健康及安全研究小組授權使用其研發的中暑預警系統科技，用以促進及管理工地安全。該小組由建築及房地產學系系主任陳炳泉教授帶領，研發出預警系統以監察工人在炎熱天氣下工作的身體狀況。智安健綜合平台的關鍵組件「預防中暑人工智能系統」，糅合了智能頭盔、健康監察站、環境監察站、泥頭車管理，以及安全預警系統五個智能裝置的功能。今次獲獎，充分體現產學緊密合作的成果。

建造業議會創新獎由建造業議會於2015年首辦，每兩年舉辦一次，旨在鼓勵各界研發、推廣和使用創新建造物料、方法和科技，從而提升建造業的競爭力。早於2015年，同一研究小組已憑著研發創新的抗熱工人工作服，贏得首屆建造業議會創新獎的本地創新大獎。該得獎發明亦於2017年起，獲所有政府資助工程指定為工人標準服裝。

BSE Scholars Reap Rewards of Research

Prof. Lin Lu and Prof. Hongxing Yang of the Department of Building Services Engineering (BSE) have received a 2019 Higher Education Excellent Research Results Award (second-class) in the category of science and technology from the Chinese Ministry of Education. Their work was on radiation heat transfer based on key energy efficient and thermal comfort technologies and applications. Members of their research team come from PolyU, Hunan University, and industry. They have worked together on the winning project since 2013.

屋宇設備工程學系學者獲國家教育部研究獎

屋宇設備工程學系的呂琳教授及楊洪興教授，榮獲國家教育部頒發2019年度「高等學校科學研究優秀成果獎(科學技術)」二等獎。得獎項目早於2013年已經展開，重點研究建基於關鍵節能與熱舒適技術及其應用的輻射傳熱。研究團隊除了有理大和湖南大學的人員，亦包含業界代表。



Prof. Lin Lu (left) and Prof. Hongxing Yang (right)

BSE Scholar to Receive Proulx Early Career Award

The International Association of Fire Safety Science (IAFSS) has chosen Dr Xinyan Huang of the Department of Building Services Engineering (BSE) for its 2020 Proulx Early Career Award in recognition of his research contributions to fire safety science. In addition to developing the first ever numerical model to pioneer understanding of smoldering wildfires, Dr Huang has improved our understanding of the flammability of materials and fire dynamics in the microgravity space environment, developing theories and techniques to understand the cable fire and dripping fire phenomena. His work has been published in over 50 peer-reviewed journals on combustion and fire sciences. He has also been recognized with the Bernard Lewis Fellowship and the Sugden Best Paper Awards by the Combustion Institute, an educational non-profit, international, scientific and engineering society founded in 1954 to promote research in combustion science. Dr Huang has been very active in the fire science community, serving on multiple editorial boards and conference organizing committees.

The Proulx Award is given every three years by IAFSS to a young scientist within five years from completion of a PhD degree.

屋宇設備工程學系學者榮膺 Proulx 青年科學家獎



屋宇設備工程學系的黃鑫炎博士因對消防科學研究有卓越貢獻，獲國際消防安全科學學會 (IAFSS) 頒發 2020 年 Proulx 青年科學家獎。他不但首創有助了解野火陰燃的數值模型，也增進了我們對微重力空間環境中物料可燃性和燃燒動力學的認識，並提出有助了解電纜火和滴落現象的理論和技術。黃博士的文章先後於超過五十份設有同僚審稿制度的燃燒和消防科學學報刊登。他之前已榮膺國際燃燒學會「伯納德-路易斯學者」，並勇奪該學會 Sugden 最佳論文獎。成立於 1954 年的國際燃燒學會，是國際性的非牟利科學及工程教育學會，致力促進有關燃燒科學的研究。黃博士一直活躍於消防科學圈子，身兼多項編務委員及研討會籌備委員職務。

Proulx 獎由國際消防安全科學學會每三年頒發一次，得獎人須為取得博士學位不超過五年的青年科學家。

BSE Scholar Elected VP of CIE

Dr Minchen (Tommy) Wei, an Assistant Professor in the Department of Building Services Engineering (BSE), has been elected Vice President of the International Commission on Illumination (CIE) Hong Kong. He has also been nominated to represent Hong Kong in CIE Division 1 Color and Vision and Division 8 Image Technology as a voting member. As the international standardizing body in the fields of light and lighting, CIE publishes international standards and technical reports for fundamental knowledge and applications in the relevant fields.

屋宇設備工程學系學者獲選香港照明學會副會長



屋宇設備工程學系助理教授魏敏晨博士，最近榮膺香港照明學會副會長，並獲委代表香港在國際照明學會的第一分部(顏色及視覺)及第八分部(影像技術)出任投票會員。作為為燈光及照明業界制訂國際標準的機構，國際照明學會不時出版/公佈有關此領域的國際標準及基本知識及應用的技術報告。

New Invention by CEE Scholar

Prof. Jian-Hua Yin of the Department of Civil and Environmental Engineering and his research team have developed a novel FBG-based effective stress cell for direct measurement of effective stress in saturated soils. A number of FBG-based effective stress cells can be connected in a single fiber line, thus reducing the number of cables and cable sizes of conventional sensors. The new technology is highly accurate, reliable, and durable, due to the high resolution of FBG sensors and one sensing diaphragm used, as well as the long-term stability and long-distance monitoring. The potential sites where FBG-based effective stress cells can be applied include slopes, reclamations, embankments, and retaining walls. More details can be found here: [https://www.polyu.edu.hk/fce/eBulletin/public/issue116/Yin%20FBG%20Effective%20Stress%20Cell%202020\(ASCE\)GM.pdf](https://www.polyu.edu.hk/fce/eBulletin/public/issue116/Yin%20FBG%20Effective%20Stress%20Cell%202020(ASCE)GM.pdf).

土木及環境工程學系學者新發明

由土木及環境工程學系殷建華教授領導的團隊，最近成功研發了以光纖布拉格光柵(FBG)為基礎的有效應激元件，可直接量度飽和土壤中的有效應力。由於一條光纖線可以連接多個以FBG為基礎的有效應激元件，縮減了傳統傳感器所需的纜線數目和尺寸。新技術應用解像度高的FBG傳感器和感應膜片，可長期保持穩定並進行遠距離監測，兼具準確、可靠、耐用三大優點，能用於斜坡、填海區、堤圍、擋土牆等地點。了解詳情，可瀏覽：[https://www.polyu.edu.hk/fce/eBulletin/public/issue116/Yin%20FBG%20Effective%20Stress%20Cell%202020\(ASCE\)GM.pdf](https://www.polyu.edu.hk/fce/eBulletin/public/issue116/Yin%20FBG%20Effective%20Stress%20Cell%202020(ASCE)GM.pdf)。

Accolades for Distinguished Chair Professor of CEE

Prof. Yozo Fujino, a Distinguished Chair Professor of the Department of Civil and Environmental Engineering (CEE), was awarded the 2020 ASCE George W. Housner Structural Control and Monitoring Medal for "pioneering research in the development and implementation of structural monitoring and control systems in large-scale structures, as well as for commitment to developing innovative education programs for students." He was also one of the recipients of the ASCE Moisseiff Award this year for notable contribution to the science and art of structural design. He was recently appointed President of Josai University in Japan.

Structural Excellence Award for CEE Academic

Prof. Siu-lai Chan and his team from the Department of Civil and Environmental Engineering (CEE) have received the Grand Award of the Structural Excellence Award 2020 organized by the Structural Division of the Hong Kong Institution of Engineers (HKIE). Their award-winning research was published in the *Journal of Constructional Steel Research* by Elsevier. Entitled "Nonlinear finite-element-analysis and design of steel-concrete composite ring (SCCR) joints," the paper was co-authored by Ir CK Lau of Sun Hung Kai Properties Ltd., current PhD student Mr L Chen, Dr Siwei Liu and Prof. Siu-lai Chan. An associate professor at Sun-Yat-Sen University in China, Dr Liu was under the supervision of Prof. Chan when he was a PhD student in CEE before graduating in 2014. They believed they won the award because their research was closely aligned with technological advances and addressed the needs of the industry to replace welding at basement with the use of studs.

CEE Scholar Honoured by CAPEES

In recognition of his excellent research and scholarly contribution in the field of environmental engineering and science, Dr Peng Wang of the Department of Civil and Environmental Engineering (CEE) has been chosen to receive the Nanova Frontier Research Award from the Chinese-American Professors in Environmental Engineering and Science (CAPEES). An associate professor who joined PolyU in late August 2019, Dr Wang was a founding faculty member of King Abdullah University of Science and Technology (KAUST) in Saudi Arabia. He received his PhD from the University of California in Santa Barbara in 2008. His research focuses on conversion and utilization of renewable energy, especially solar energy, towards significant applications at the water-energy-climate nexus, including seawater desalination, brine treatment with zero liquid discharge, atmospheric water harvesting, smart cooling, etc. He has published over 90 peer-reviewed papers and currently serves as an associate editor of *Environmental Science & Technology* (ES&T).

土木及環境工程學系傑出講座教授連奪兩獎

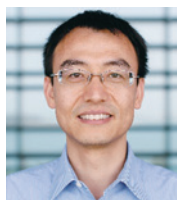


日本城西大學新任校長、土木及環境工程學系傑出講座教授藤野陽三教授，獲美國土木工程師學會(ASCE)頒授2020年「George W. Housner結構控制及監測獎章」，以表揚他在開發和推行大型結構控制及監測系統上的卓越科研成就，以及為學生編製創新課程的努力。另外，他亦憑著對結構設計科學和藝術的重大貢獻，成為本年度ASCE「穆西耶夫獎」得主之一。

土木及環境工程學系學者奪卓越結構獎

以陳紹禮教授為首的土木及環境工程學系團隊，最近榮獲香港工程師學會結構分部頒發2020年「卓越結構大獎」，得獎的研究論文已於Elsevier出版社的《建築鋼研究》學報刊登。該文題為「鋼-混凝土複合環(SCCR)接頭的非線性有限元分析及設計」，由陳教授與中山大學副教授劉思威博士合著。劉博士曾是陳紹禮教授指導的研究生，2014年於土木及環境工程學系完成博士學位。兩人認為今次獲獎，是因為有關研究緊貼科技發展，以螺柱代替在地庫進行焊接，滿足了業界的需要。

土木及環境工程學系學者獲嘉獎



土木及環境工程學系的王鵬博士最近獲華人環境教授協會(CAPEES)頒發「Nanova前沿科研獎」，以表揚他在環境工程科學研究和著作上的卓越貢獻。王博士於2019年八月底加入理大，現職副教授，是沙地阿拉伯阿卜杜拉國王科技大學環境工程科學學院創院教員。他2008年取得加州大學聖芭芭拉分校博士學位，主力研究可再生能源(尤其是太陽能)在水-能源-氣候紐帶關係下的廣泛轉換和使用，包括海水化淡、達致零液體排放的鹽水處理、大氣水收集、智能散熱等。王博士在設有審稿制度的學報先後發表逾九十篇論文，現時為《環境科學工程》期刊副編輯。

LSGI Scholar Receives Leader of the Year Award

In recognition of his achievement in lunar topographic mapping and geomorphological analysis for finding the best landing location on the far side of the Moon for the Chinese space mission of Chang'e 4, Prof. Bo Wu of the Department of Land Surveying and Geo-Informatics (LSGI) was recently honoured by the Sing Tao News Corporation Ltd. with a Leader of the Year Award 2019 in its Education/Professions/ Technology & Innovation category. He shares the award with another recipient, Prof. Kai-leung Yung of the Department of Industrial and Systems Engineering, whose research on a camera pointing system enabled Chang'e-4 to capture stunning panoramic images of the lunar surface.

Established since 1994, the award aims to provide role models for a younger generation and inspire the public to strive for the best in the development of Hong Kong.

土地測量及地理資訊學系學者榮膺傑出領袖獎

土地測量及地理資訊學系的吳波教授，最近榮獲星島報業集團頒發2019「傑出領袖獎」。吳教授是教育/專業/科技及創新組別的得獎者，他致力從事月球地形測繪和地貌分析，協助尋找國家登月探測器「嫦娥四號」在月球背面的最佳登陸點，成就斐然。該獎另一得主是理大工業及系统工程學系的容啟亮教授。容教授研發的「相機指向系統」，讓「嫦娥四號」得以拍攝到令人讚嘆的月球表面全景相片。

星島報業「傑出領袖獎」始於1994年，旨在選出成就卓越的社會翹楚，鼓勵年輕人以得獎者為榜樣，啟迪市民同心促進香港的發展。



Two PolyU scholars win Leader of the Year Award 2019

LSGI Scholar Elected to HK Meteorological Society

At the annual general meeting of the Hong Kong Meteorological Society on 20 January 2020, Prof. George Liu of the Department of Land Surveying and Geo-Informatics (LSGI) was elected one of its executive committee members. He has published extensively on water vapor observation and modeling. His research lab, the Micro-Laboratory of Atmospheric Research and Geomatics Engineering (Micro-LARGE), has developed novel algorithms to calibrate the water vapor data of remote sensing satellites using ground-based observations, leading to an accuracy improvement of 15-22%. In 2017, his lab won the Zhu Kezhen Prize from the Hong Kong Meteorological Society, the first time for PolyU. In 2014, Prof. Liu was nominated by the Hong Kong Observatory for the World Meteorological Organization (WMO) Norbert Gerbier-MUMM International Award for 2015 for his article on a method to evaluate the absolute accuracy of water vapor measurements.

土地測量及地理資訊學系學者獲選香港氣象學會執委



香港氣象學會於2020年一月二十日舉行周年大會；席上，土地測量及地理資訊學系的劉志趙教授獲選為學會的其中一位執行委員會委員。劉博士發表了不少有關水蒸氣觀測及建模的論文，由他主理的大氣研究及測繪工程微實驗室，成功研發了新式計算法，用以校準地面觀測遙感衛星所採集的水蒸氣數據，使準確度提升15至22%。2017年，其實驗室獲香港氣象學會頒發《竺可楨獎》，開創理大先河。另外，劉教授曾於2014年憑有關提升水蒸氣數據絕對精度的論文，獲香港天文台提名競逐世界氣象組織2015年《Norbert Gerbier-MUMM 國際獎》。

Research and Teaching Awards for Young LSGI Scholar

Dr Wai Yeung Yan of the Department of Land Surveying and Geo-Informatics (LSGI) has received a Bronze Medal Award from the Canadian Remote Sensing Society in recognition of his early career research achievement in remote sensing in Canada, particularly with respect to his contributions in airborne LiDAR data correction, normalization and classification. He was also the sole recipient of the Dean's Teaching Award from the Faculty of Engineering and Architectural Science of Ryerson University in Toronto, his previous employer and alma mater.

土地測量及地理資訊學系年輕學者獲科研及教學獎項



土地測量及地理資訊學系的甄威揚博士，最近獲加拿大遙感學會頒發銅獎章，以嘉許他在加國進行遙感研究的成就，尤其是對機載LiDAR數據校正、標準化及分類的貢獻。另外，他亦獲母校及前僱主——多倫多懷雅遜大學工程及建築科學學院頒發「院長特設教學獎」，並為該獎唯一得獎人。

HK PhD Fellowship Scheme 2020/21

PolyU was awarded 29 HK PhD Fellowships for 2020/21, a testimony of its strong research programmes. The Faculty of Construction and Environment (FCE) is pleased to have the following 10 winners (34.5% of PolyU total) for 2020/21:

2020/21 香港博士研究生獎學金計劃

在2020/21年度，有二十九位「香港博士研究生獎學金」得主選擇入讀理大，足證我校研究課程實力非凡，加入建設及環境學院者有以下十位（佔入讀理大總人數的34.5%）：

Dept 學系	Awardee 獎學金得主	Chosen Programme 課程	Supervisor 導師
BRE 建築及房地產	Huiwen Peng 彭惠雯	Urban Sustainability Policy 城市可持續性政策	Prof. Eddie Hui 許智文教授
BSE* 屋宇設備工程*	Meng Li 李夢	Building Energy 建築能源	Prof. Hongxing Yang 楊洪興教授
BSE 屋宇設備工程	Tianhang Zhang 張天航	Building Safety and Resilience 建築安全及防災	Prof. Fu Xiao 肖賦教授
BSE 屋宇設備工程	Wenxuan Zhao 趙文萱	Building Energy 建築能源	Prof. Shengwei Wang 王盛衛教授
CEE* 土木及環境工程*	Umer Mansoor	Construction and Transportation 建造與運輸	Prof. Anthony Chen
CEE 土木及環境工程	Sathana Sae-Tiao	Construction and Transportation 建造與運輸	Prof. Anthony Chen
CEE 土木及環境工程	Zibo Xu 徐子博	Environmental Engineering and Science 環境工程科學	Dr Daniel Tsang 曾超華博士
LSGI 土地測量及地理資訊	Xinyue Chen 陳心悅	Urban Informatics and Smart City 城市信息學與智慧城市	Dr Yang Xu 徐陽博士
LSGI 土地測量及地理資訊	Weihaio Ding 丁煒皓	Geomatics 地理信息學	Prof. Wu Chen 陳武教授
LSGI 土地測量及地理資訊	Jiewen You 游介文	Geomatics 地理信息學	To be confirmed

*Nominated by the Research Institute for Sustainable Urban Development (RISUD)

*由理大可持續城市發展研究院提名

The Hong Kong PhD Fellowship Scheme provides a monthly stipend of HK\$25,800 plus a travel allowance of HK\$12,900 per year for attending conferences and research-related events for the entire normal study period. Tuition fees for the same period are also waived by the University. Applications are accepted beginning in September till early December each year. More information can be found at <https://www.polyu.edu.hk/ro/hkphd-fellowship/>.

「香港博士研究生獎學金計劃」得主每月可獲二萬五千八百港元生活資助，而在正常修業期內，每年另有一萬二千九百港元旅費津貼，用以出席研討會及與科研有關的活動。大學亦會豁免他們在正常修業期的學費。有志者可於每年九月至十二月初提交申請。查閱詳情，可瀏覽<https://www.polyu.edu.hk/ro/hkphd-fellowship/>。

Known for its excellence in research, the Faculty of Construction and Environment (FCE) has 3 academics among the world's most influential researchers of the past decade, according to the Web of Science. FCE alumni are also sought after by employers in many fields, from academia to industry and the public sector.

建設及環境學院科研成就馳譽國際，其中三位學者獲評為最近十年全球最具影響力的科研人員，根據《科學網》資料庫統計。就業方面，不論在學術界或公私營界別，本院校友均廣受僱主歡迎。



Endowed Professorships for FCE

The Faculty of Construction and Environment (FCE) is pleased that 2 of its academics have been rewarded with endowed professorships for their outstanding academic and research achievements.

Prof. Xiangdong Li, Director of PolyU's Research Institute of Sustainable Urban Development (RISUD), Associate Dean (Research), and Chair Professor of Environmental Science and Technology in the Department of Civil and Environmental Engineering (CEE), has been appointed as Ko Jan Ming Professor in Sustainable Urban Development for a period of 5 years from 1 March 2020 to 28 February 2025.

Prof. Li's major research interests include regional pollution, urban environmental studies, and remediation of contaminated sites. He has published more than 200 papers in leading international journals, and is an author of 15 highly cited papers (top 1%) in Environment/Ecology in the Web of Science database. He was awarded an Outstanding Young Researcher (Overseas) Fund from the Natural Science Foundation of China (NSFC) in 2007. A past president (2011-2013) of the International Society of Environmental Geochemistry and Health, he is currently an associate editor for *Environmental Science and Technology*, a journal published by the American Chemical Society, and serves on the editorial board for several other international journals in related fields.

Prof. Shengwei Wang, Chair Professor of Building Services Engineering (BSE), has been appointed Otto Poon Charitable Foundation Professor in Smart Building from 1 April 2020 to 31 March 2025. His research interests include building energy systems, smart and energy-efficient control, energy system optimal design and energy diagnosis, building demand response and grid-responsive buildings as well as building automation technologies. A highly cited scholar in the field of energy science and engineering, he has published over 300 papers in refereed journals. One of the most successful scholars at PolyU in integrating academic research with industrial applications, he has received about HKD 20 million from industry for applied energy research and application projects. He is an associate editor of the academic journal of ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers), *Science and Technology for the Built Environment*, and leads the Building Energy and Automation Research Laboratory at PolyU.

With the above appointments in PolyU's Endowed Professorship Scheme, there are now 5 endowed professorships in FCE.

建設及環境學院喜添兩位勵學教授

建設及環境學院兩位學者憑著傑出的學術及科研成就，獲理大委任為勵學教授。



理大可持續城市發展研究院院長、建設及環境學院副院長(科研)、土木及環境工程學系環境科學和技術講座教授李向東教授，獲任命為「高贊明可持續城市發展教授」，任期為2020年三月一日至2025年二月二十八日，為期五年。

李教授主力研究區域性污染、城市環境，以及受污染土地的修復事宜，在頂級國際學術期刊累計發表逾二百篇論文，並有份撰寫《科學網》數據庫中十五份(首1%)最常獲引用的環境學/生態學文章，早於2007年已獲國家自然科學基金的「優秀青年科學基金(海外)項目」資助。他曾於2011-2013年出任國際環境地球化學與健康學會會長，現為美國化學學會刊物《環境科學技術》副編輯，並為其學術領域的數份國際學術期刊擔任編務委員。



另外，屋宇設備工程學系講座教授王盛衛教授，亦獲任命為「潘樂陶慈善基金智慧建築教授」，任期為2020年四月一日至2025年三月三十一日。王教授的研究範疇包括建築物能源系統、智能節能控制、能源系統的優化設計及能源診斷、服務於智能電網的建築需求響應技術，以及樓宇自

動化技術。他著作甚豐，在設有同僚評審機制的學術期刊合共發表了逾三百篇論文，是能源科學和工程領域裡經常獲引文的學者之一。在理大學者中，王教授是成功糅合理論與實踐的佼佼者，至今已從業界取得約二千萬港元資助，進行與能源有關的應用研究。他現為美國採暖製冷和空調工程師協會(ASHRAE)期刊《建造環境科學與技術》副編輯，並主管理大的建築節能與自動化研究實驗室。

在理大「勵學教授冠名計劃」下，建設及環境學院至今已有五位學者獲「勵學教授」殊榮。



Research Activities

研究薈萃

Research Impact Fund 2019/20

PolyU has been awarded about 45% of the Research Impact Fund 2019/20, the largest share among the local universities. Of the 5 projects received by PolyU, one was led by Prof. Bo Wu of the Department of Land Surveying and Geo-Informatics (LSGI), with co-principal investigators from the University of Hong Kong, collaborators from Europe, as well as partners from mainland China and local institutions. Entitled "Mapping and characterization for optimized evaluation of potential landing sites on the moon and Mars to support future missions," the 4-year project will receive HK\$4,469,360 from the Hong Kong Research Grants Council, which funds 70% of the project cost, with the remaining 30% from the university and other partners.

2019/20 研究影響基金



2019/20年度研資局「研究影響基金」撥款結果顯示，理大獨佔當中約45%的撥款，是本地大學之冠。在理大獲資助的五項研究中，其中一項是由土地測量及地理資訊學系的吳波教授領導，除了有香港大學的學者擔任聯合首席研究員，更有來自歐洲、中國內地和本地院校的合作夥伴。吳博士領導的項目名為「基於測圖與特徵分析的未來月球與火星探測任務候選著陸點優化評估」，為期四年，將獲研資局撥款港幣四百四十六萬九千三百六十元，足以應付七成的項目開支，至於餘下三成經費，將由理大及其他合作夥伴分擔。

PROCORE France/ HK Joint Research Scheme 2019/20

Dr Zhenyu Yin, an associate professor from the Department of Civil and Environmental Engineering (CEE), has been awarded funding from the PROCORE-France/ Hong Kong Joint Research Scheme to collaborate with Prof. Yu-Jun Cui of the Ecole des Ponts Paris Tech on a 2-year project entitled "Influence of Natural Deposition Plane Orientation on the Viscous Characteristics of Natural Clays: from Microstructural Investigation to Micromechanical Modelling." He will receive HK\$36,000 each year.

2019/20 年度法國 / 香港合作研究計劃

土木及環境工程學系副教授尹振宇博士，最近喜獲研資局轄下的「法國與香港合作研究計劃」批出撥款。他將夥拍巴黎路橋學院的崔玉軍教授，開展名為「自然沉積面對天然黏土粘性特徵的影響：從微觀結構研究到微觀力學模型」的研究，為期兩年。尹博士每年獲得的資助額為三萬六千港元。

BSE Scholar Supported by ITF

Prof. Lin Lu of the Department of Building Services Engineering (BSE) was awarded HK\$1,268,450 from the Innovation and Technology Fund (ITF) for a 2-year trial scheme project entitled "Development and optimization of the novel transparent heat insulation nano-coating and its application on local building glazing façade." Starting in January 2020, the project will apply Prof. Lu's novel transparent heat insulation nano-coating for energy-saving at the Government's Electrical and Mechanical Services Department Headquarters in Kowloon Bay.

屋宇設備工程學系學者獲創新及科技基金資助

屋宇設備工程學系的呂琳教授獲創新及科技基金批出一百二十六萬八千四百五十港元，開展名為「新型透明隔熱納米塗料的應用研發與優化及其在當地綠色建築中的應用及節能分析」的兩年試用計劃。從2020年一月起，政府機電工程署的九龍灣總部將使用由呂教授研發的新型透明納米隔熱塗層，以達致節能目標。

Since 2013, Prof. Lu has collaborated with local industry on nano-coating development, receiving 1 mainland patent, 1 US patent, the TechConnect 2017 Global Innovation Award, and a certificate of merit in the 2017 Hong Kong Green Innovations Award for her efforts.

CEE Academics Awarded Funding for Research on Hong Kong-Zhuhai-Macau Bridge

A team of researchers from the Department of Civil and Environmental Engineering (CEE) was awarded RMB 3.74 million from the National Key Technologies R&D Programme of the Ministry of Science and Technology (MOST) for a large-scale research project entitled "Technology integration and application for smart operation of Hong Kong-Zhuhai-Macau Bridge." Members of the team include Prof. You-Lin Xu, Dean of the Faculty of Construction and Environment (FCE), Prof. Yong Xia, Prof. Songye Zhu, and Dr You Dong.

Prof. Xia, Prof. Zhu, and Dr Dong also received RMB 2.44 million from the Guangdong Provincial Key Technologies R&D Programme for another research project entitled "Intelligent safety monitoring and emergency control for large-scale cross-sea transportation cluster infrastructure." Both projects will last for 3 years, from January 2020 to December 2022.

CEE Scholar Coauthored Article in *Nature Sustainability*

Nature Sustainability has published an article coauthored by Dr Peng Wang of the Department of Civil and Environmental Engineering (CEE) and 4 of his former colleagues at the King Abdullah University of Science and Technology in Saudi Arabia. Entitled "Photovoltaic panel cooling by atmospheric water sorption-evaporation cycle," it proposes a sorption-based atmospheric water harvester as an effective component for a new and versatile photovoltaic panel cooling strategy. With little constraint in terms of its geographical application and the potential to improve the electricity production of existing and future photovoltaic plants, the cooling strategy can result in less CO₂ emission or less land occupation by photovoltaic panels. More details can be found in the full article <https://www.nature.com/articles/s41893-020-0535-4>.

Contributing to global sustainability, the research has been highlighted by *Science* magazine at <https://www.sciencemag.org/news/2020/05/new-solar-panels-suck-water-air-cool-themselves-down>. Dr Wang also promoted this new technology in a blog post at <https://sustainabilitycommunity.springernature.com/users/266280-peng-wang/posts/atmospheric-water-cools-photovoltaics-and-more>.

自2013年起，呂教授已開始與本地業界合作研發納米塗層，先後獲得一項內地專利、一項美國專利、2017年TechConnect 全球創新發明獎，以及2017年「香港綠色創新大獎」優異獎。

土木及環境工程學系學者獲資助開展「港珠澳大橋」研究

土木及環境工程學系一個研究團隊，獲國家科學技術部轄下的「國家科技攻關計劃」撥款三百七十四萬元人民幣，進行名為「港珠澳大橋智能運營的技術集成與應用」的大型研究，團隊成員包括建設及環境學院院長徐幼麟教授、夏勇教授、朱松曄教授及董優博士。

夏、朱、董三位學者同時獲「廣東省科技攻關計劃」撥款二百四十四萬元人民幣，開展名為「大型跨海運輸集群基礎設施的智能安全監控和應變控制」的研究。上述兩個項目均由港珠澳大橋管理局牽頭，聯合內地、香港、澳門十家單位參加；項目始於2020年一月，至2022年十二月結束，為期三年。

土木及環境工程學系學者合著論文獲《自然永續發展》刊登



由土木及環境工程學系王鵬博士聯同其現職於沙地阿拉伯阿卜杜拉國王科技大學的四位舊同事合著的一篇論文，最近獲《自然永續發展》(Nature Sustainability)期刊刊登。在這篇題為「利用大氣水吸附蒸發循環冷卻光伏電池板」的文章裡，作者提出使用吸附式大氣集水器作為新一代多功能光伏電池冷卻方案的有效組件。此冷卻方案少受地域/地理限制，並有望改善現有及未來光伏電站的產能，因此可減少排放二氧化碳或光伏電池板佔用的土地。閱覽論文全文，可連結<https://www.nature.com/articles/s41893-020-0535-4>。

由於上述研究可促進全球的可持續發展，因此獲《科學》雜誌(Science)重點報導，網址是<https://www.sciencemag.org/news/2020/05/new-solar-panels-suck-water-air-cool-themselves-down>。王博士亦在博客貼文介紹這項新技術，網址是<https://sustainabilitycommunity.springernature.com/users/266280-peng-wang/posts/atmospheric-water-cools-photovoltaics-and-more>。

LSGI Scholars Develop System to Monitor SO₂ Emission

A UV-based system to monitor the concentration of sulphur dioxide (SO₂) from ship emission has been developed by Prof. Zhi-lin Li and Dr Charles Wong of the Department of Land Surveying and Geo-Informatics (LSGI). Integrating one UV (ultraviolet) camera and two RGB (red, green, blue) cameras, the system can capture the images of a sailing or stationary ship with running engines from a long distance. It can also identify SO₂ pollutants remotely, sending alerts when a vessel with SO₂ emission over a threshold is identified.

Supported by the Environment and Conservation Fund, the research team has conducted systematic experiments indoors and outdoors to study the impact of different environmental conditions, such as temperature, air pressure and distance, on SO₂ concentrations. The system will eventually be deployed at Hong Kong's port terminals to help improve their air quality.

LSGI Scholar's Scientific Approach to Keep New Virus off Campus

As part of PolyU's efforts to prevent the spread of the novel coronavirus, remote infrared body temperature measurement was implemented at various entrances of the university in early February 2020. This was done with the help of Dr Wallace Lai of the Department of Land Surveying and Geo-Informatics (LSGI), who converted prior work developed by Dr Steven Tsang in the Department of Building and Real Estate back in 2003 to fight SARS into feasible practice within a short period. Based on the scientific ground work done by Prof. Lung-Sang Chan and his team from the University of Hong Kong, Dr Lai elaborated on the science behind this preventive measure for the colleagues of the Facilities Management Office for their implementation.

Navigation Research in Fight Against Pandemic

In a joint Innovation and Technology Fund project with the Logistics and Supply Chain Management Research Centre (LSCM) of the Innovation and Technology Commission, Prof. Wu Chen of the Department of Land Surveying and Geo-Informatics (LSGI) and his research team made use of a smart lamp post* for mobile phone navigation in dense urban environments where GPS is not working. They have developed a multiple Bluetooth based device with various ranges for determining location and direction.

As part of the fight against the COVID-19 pandemic, LSCM has transferred the technology to the home quarantine monitoring electronic devices of the Centre for Health Protection of the HKSAR Government. Ideal for home quarantine monitoring purpose, the first batch of the devices was modified from a model developed by LSGI's Navigation Laboratory. The operational range of these devices has ensured that home quarantine is observed by those deemed a risk to the society.

土地測量及地理資訊學系學者研發二氧化硫排放監察系統

土地測量及地理資訊學系的李志林教授和黃文聲博士，合力研發了一套監察輪船廢氣中二氧化硫濃度的系統。系統由一台紫外光攝影機及兩台三原色(紅、綠、藍)攝影機組合而成，無論輪船是航行途中或處於沒關掉引擎但靜止不動的狀態，系統都可以遠距離捕捉該船的影像和辨識二氧化硫污染物，在二氧化硫濃度超標時發出警示。

研究團隊獲環境及自然保育基金資助，在室內和室外進行了一系列研究，監察溫度、氣壓、距離等環境因素對二氧化硫濃度的影響。這套新系統會逐步於香港各港口/碼頭使用，以期改善空氣質素。

土地測量及地理資訊學系學者以科學方法助校園防疫

為防止新型冠狀病毒散播，理大早於2020年二月初已於校園各出入口採用遠紅外線探測體溫。此措施得以推行，實有賴土地測量及地理資訊學系賴緯樂博士的協助。賴博士在短時間內把建築及房地產學系曾偉番博士於2003年對抗「沙士」病毒所做的前期工作轉化為可行措施。他根據港大陳龍生教授團隊所進行的基礎科學工作，向校園設施管理辦事處的同事闡釋有關科學原理，使防疫措施得以順利實施。

導航研究助香港抗疫

在一個與創新科技署物流及供應鏈管理應用技術研發中心(LSCM)合作的「創新及科技基金」項目中，以土地測量及地理資訊學系陳武教授為首的研究團隊，利用智慧燈柱*研發了手機導航技術，可供在無法使用GPS的都市環境中應用。他們研發了一個以藍芽為基礎的裝置，以不同程距確定位置和方向。

為了協助抗疫，LSCM已將此技術轉用於特區政府衛生防護中心的居家隔離電子監察裝置。首批裝置已根據土地測量及地理資訊學系導航技術實驗室研發的模型予以優化，其操作程距足以確保可能導致社區感染的人士遵守居家隔離規定。

*The Hong Kong government has plans to install some 400 smart lamp posts in 4 districts with higher pedestrian and traffic flow to promote smart city development and support 5G mobile network implementation.

*特區政府計劃於四個行人及交通流量大的地區安裝約四百支智慧燈柱，以促進智慧城市的發展，並配合建設5G網絡。

Large Equipment Fund for Research

The Areas of Excellence Committee of PolyU has approved 4 proposals of FCE colleagues that have been supported by the Large Equipment Fund for Research. Following are the details:

PI (Dept)	Project Title	Funding Amount (HK\$)
Prof. Jian Guo Dai (CEE) 戴建國教授	An Integrated Climatic Chamber for Studying Multi-scale Behavior of FRP-Concrete Composite Structures Subjected to Combined Mechanical and Environmental Loading	\$4,751,920
Prof. Hai Guo (CEE) 郭海教授	A Fine Particle Characterization System for Science and Engineering Research Across Multi-disciplines	\$2,162,772
Dr Wallace Lai (LSGI) 賴緯樂博士	Multi-channel and Multi-static Ground Penetrating Radar (GPR)	\$1,954,680
Dr Charles Wong (LSGI) 黃文聲博士	HySpex's VNIR-1800 and SWIR-384 Hyperspectral Scanner	\$2,558,854

大型設備基金

理大卓越學術領域委員會已核准以下四項「大型設備基金」撥款：

Funding of Projects of Strategic Importance

The Areas of Excellence Committee (AoEC) of PolyU has recently approved funding for the following 2 projects from FCE:

PI (Dept) 首席研究員 (學系)	Project Title 項目名稱	Project Duration (Year) 為期 (年數)	Funding Amount (HK\$) 撥款額 (港元)
Prof. Hai Guo (CEE) 郭海教授 (土木及環境工程學系)	Indoor Air Pollution in Typical Hong Kong Homes: Insight into Organic Compounds and Microorganisms 典型香港家庭的室內空氣污染：深入了解有機化合物和微生物	2	\$2,000,000
Dr Dan Tsang (CEE) 曾超華博士 (土木及環境工程學系)	Fostering Circular Bioeconomy of Food Supply Chain Wastes in the Greater Bay Area 大灣區糧食供應鏈的浪費問題：促進其可循環生物經濟發展	2	\$1,000,000

策略性研究項目獲大學資助

理大卓越學術領域委員會最近通過撥款資助建設及環境學院的以下兩項研究：

PolyU Postdoctoral Fellowship Scheme 2019

The PolyU Postdoctoral Fellowship Scheme 2019 has supported 5 academics in the Faculty of Construction and Environment (FCE) to each engage a postdoc fellow (PDF) in their research for 2 years. Following are the details:

PI (Dept) 首席研究員 (學系)	PDF Candidate 博士後研究員	Institution (PhD) 院校 (博士學位)	Project Title 項目名稱
Prof. Lin Lu (BSE) 呂琳教授 (屋宇設備工程學系)	Shifang Huang 黃世芳	Southeast University 東南大學	Frost-free Air-source Heat Pump with Solution Energy Storage for Building Decarburizing Heating 基於溶液自儲能的無霜空氣源熱泵建築供熱系統
Prof. Wei Chu (CEE) 朱威教授 (土木及環境工程學系)	Muting Yan 嚴慕婷	Sun Yat-Sen University 中山大學	Microplastic as a Vector for Antibiotic Exposure in Zebrafish: Possible Synergistic Toxic Effect 微塑料與抗生素對斑馬魚的複合毒性研究

理大2019年度博士後研究員資助計劃

在2019年度，建設及環境學院有五位學者獲理大「博士後研究員資助計劃」支持，得以各自聘請一位博士後人員參與其研究項目，為期兩年，詳情如下：

Dr Zhen Leng (CEE) 冷真博士 (土木及環境工程學系)	Jiawang Jiang 蔣繼望	Southeast University 東南大學	Multi-scale Fatigue Performance Characterization of Asphalt Mixtures Based on Image Analyses 基於圖像分析的瀝青混合料疲勞性能多尺度表徵
Prof. Yiqing Ni (CEE) 倪一清教授 (土木及環境工程學系)	Xiangyun Deng 鄧向允	Delft University of Technology 代爾夫特理工大學	Development and Validation of a Multiscale Dynamic Wheel-rail Contact FE Model for Assessing and Predicting Rail Damage 用於鋼軌損傷評估與分析的輪軌瞬態接觸多尺度有限元模型開發與驗證
Prof. Chi Sun Poon (CEE) 潘智生教授 (土木及環境工程學系)	Peiliang Shen 申培亮	Wuhan University of Technology 武漢理工大學	Reuse of Municipal Solid Waste Incineration Bottom Ash as Aggregate in Concrete

Funding for MOOC to Introduce Fire Safety Engineering

The Advisory Committee on eLearning of PolyU has approved \$440,000 for Prof. Asif Usmani, Head of the Department of Building Services Engineering (BSE), to develop a massive open online course (MOOC) introducing fire safety engineering to practitioners in the field. The MOOC will cover the fundamentals of fire science and key concepts of fire safety engineering, such as, active and passive fire protection systems; human behavior and legal aspects. The project is expected to last for 18 months, from September 2020 to February 2022. Members of his team include BSE colleagues Prof. Jose Torero, Dr Xinyan Huang, Dr Liming Jiang, Dr Che Heng Lui, Dr Mustesin Khan, and Dr Mingchun Luo.

理大撥款編訂消防工程大型共用網上課程

理大電子學習諮詢委員會已核准斥資四十四萬元以資助屋宇設備工程學系系主任 Asif Usmani 教授編訂一套向業界講解消防工程的大型共用網上課程(MOOC)，內容將涵蓋消防科學基礎知識和消防工程的重要概念，如主動與被動式防火系統、人的行為模式及有關法律事宜。這項目預計於2020年九月展開，2022年二月結束，為期十八個月。Asif Usmani 教授的團隊成員包括 Jose Torero 教授、黃鑫炎博士、江黎明博士、雷芝行博士、Mustesin Khan 博士及羅明純博士，全皆為屋宇設備工程學系學者。

Teaching Development Grants for FCE Colleagues

The Learning and Teaching Committee of PolyU has approved funding for the following teaching development projects for the 2019-22 triennium. Details are as follows:

建設及環境學院同事獲理大批出教學發展資助

理大教學委員會已核准於2019-22 年度撥款予下述教學發展項目，詳情如下：

Project Leaders (Dept.) 項目組長 (學系)	Project Title 項目名稱	Amount Awarded 撥款額
Larger-scale Projects 大型項目		
Dr Tak Ming Chan (CEE) 陳德明博士 (土木及環境工程學系)	Learning through experiencing – 3D Modular Integrated Construction (MiC) in Greater Bay Area 從體驗中學習 – 大灣區三維模塊化集成結構 (MiC)	\$666,667
Dr Barbara Siu (CEE), Prof. Alan Lau (EE) 邵泳怡博士(土木及環境工程學系)、劉伯濤教授(電機工程學系)	EAC strategies to enhance higher-order thinking and communication skills of engineering students 工程學認證局(EAC)提升工程學學生高階思維及溝通技能的策略	\$666,120
Dr Eddie Lam (CEE), Dr Brian Lee (SD), Dr Chi Yuen Leung (APSS) 林少書博士(土木及環境工程學系)、李宇軒博士(設計學院)、梁志遠博士(應用社會科學系)	Learn to learn in the interdisciplinary way with the theme "Youth Innovation and Entrepreneurship" 在「青年創新與創業」主題下研修跨學科學習之道	\$665,000

Smaller-scale Projects		
Mr Wai Kei Kong (BRE) 江偉基先生 (建築及房地產學系)	Immersive learning for construction technology and management with four-dimension BIM models 應用四維 BIM 模型推動建築及管理技術的「沉浸式學習」	\$260,000
Dr Minkoo Kim (BRE) 金珉玖博士 (建築及房地產學系)	Project Live – Experiencing construction site visit in classroom 實況計劃 – 在課室體驗建築工地	\$260,000
Dr Huan Feng Duan (CEE) 段煥豐博士 (土木及環境工程學系)	Interactive visualization tool based enhancement for learning and teaching in fluid mechanics for civil engineering 以互動可視化工具優化土木工程流體力學的教與學質素	\$220,000

FCE Matching Fund for External Competitive Research Grants

To encourage and reward colleagues in securing external competitive research grants, the Faculty of Construction and Environment (FCE) established the FCE Matching Fund for External Competitive Research Grants. 8 academics of the Faculty of Construction and Environment (FCE) have been awarded such grants. Following are the details:

建設及環境學院校外競爭性撥款配對基金

為鼓勵和嘉許取得校外競爭性科研撥款的同事，建設及環境學院設立了「校外競爭性科研撥款配對基金」。八位學院學者獲此基金資助，詳情如下：

PI (Dept) 首席研究員 (學系)	Project Title 項目名稱	Total Funding Acquired (HK\$)(Funding Source)	Matching Funding Approved (HK\$) 批准金額 (港元)
Prof. Eddie Hui (BRE) 許智文教授	Land Conveyance in Midst of State Policy Directions, Public Welfare, and Career Interests: An Empirical Study of Chinese Cities 中國地方官員在國家政策、社會福利及個人仕途間如何作出土地出讓的決定	\$1,064,976 (RGC GRF)	BRE: \$40,000 FCE: \$40,000
Prof. Michael Yam (BRE) 任志浩教授	A Study of a Beam-to-Beam Connection using Nitinol Shape Memory Alloy Plates and Washers Subject to Cyclic Loading 迴圈荷載作用下利用鎳鈦形狀記憶合金板和墊圈的梁梁拼接節點研究	\$598,000 (RGC GRF)	BRE: \$80,000 FCE: \$80,000
Prof. Tarek Zayed (BRE)	Smart Noise Logger-based Leak Diagnosis System	\$2,313,225 (ITF-ITSP)	BRE: \$59,500 FCE: \$59,500
Prof. Shiming Deng (BSE) 鄧仕明教授	Developing Condensing-frosting Performance Maps for an Outdoor Coil in Variable Speed Space Heating ASHPs for Frost-free Operation at above 0 °C Ambience 變頻空氣源熱泵室外機組在大於0度的室外環境作無霜運行的冷凝結霜性能圖譜	\$748,300 (RGC GRF)	BSE: \$80,000 FCE: \$80,000
Dr Minchen Wei (BSE) 魏敏晨博士	Characterizing Light Source Colour Rendition and Object Colour Appearance Across a Wide Range of Light Levels 在不同照明水平下光源顯色能力和物體色貌的研究	\$673,270 (RGC GRF)	BSE: \$80,000 FCE: \$80,000
Dr Ruoyu You (BSE) 尤若于博士	Investigating the Personalized Displacement Ventilation System with the Concurrent Operation of Gaspers for Reducing Airborne Disease Transmission in Commercial Airlines 個性置換送風下可調節風口對飛機客艙內空氣傳染疾病的影響	\$408,115 (RGC ECS)	BSE: \$80,000 FCE: \$80,000
Prof. Jin-Guang Teng (CEE) 滕錦光教授	Novel FRP-Reinforced Concrete Columns for Aggressive and Special Environments	\$675,647 (RGC GRF)	CEE: \$17,435.5 FCE: \$17,435.5

Dr You Dong (CEE) 董優博士	Life-Cycle Management and Health Monitoring of Long-Span Bridges under Fatigue through the Coupling of SHM Data, Decision Theory, and Value of Information 基於 SHM 數據、決策理論和信息價值的大跨度橋樑全壽命週期維管與健康監測	\$534,500 (RGC GRF)	CEE: \$80,000 FCE: \$80,000
---------------------------	---	---------------------	--------------------------------

FCE Projects of Strategic Importance Scheme

建設及環境學院策略性研究項目

建設及環境學院通過撥款資助以下兩宗策略性研究項目：

The Faculty of Construction and Environment (FCE) has approved funding for the following projects of strategic importance:

PI (Dept) 首席研究員 (學系)	Project Title (Type of Application) 項目名稱	Seed Funding Approved (HK\$) 批准金額 (港元)
Dr Huanfeng Duan (CEE) 段煥豐博士	Mechanism on Formation, Evolution and Resilience of Urban Flash Floods under Smart City Development and Climate Change (RGC Collaborative Research Fund - Group Research) 智慧城市發展與氣候變化背景下的城市暴洪形成、演變及恢復力機理研究	CEE: \$50,000 FCE: \$50,000
Prof. Yiqing Ni (CEE) 倪一清教授	Transformative Typhoon Risk Mitigation of High-rise Building Clusters in Coastal Cities through Understanding Urban Aerodynamics Mechanism (RGC Theme-based Research Scheme) 基於城市空氣動力學機理的變革式沿海高層建築群熱帶風暴風險防控體系	CEE: \$100,000 FCE: \$100,000

FCE Postdoctoral Fellowship Scheme

建設及環境學院「博士後研究員資助計劃」

The following postdocs have been supported by the FCE Postdoctoral Fellowship Scheme:

以下博士後研究員獲本院的「博士後研究獎學金計劃」資助，詳情如下：

PI (Dept) 首席研究員 (學系)	PDF Candidate 博士後研究員	Project Title 項目名稱	Matching Funding Approved (HK\$) 資助額
Prof. Chi-Sun Poon (CEE) 潘智生教授	Dr Guanghua Cai 蔡光華博士	Study on Using Incineration Bottom Ash (IBA) for Stabilization and Solidification (S/S) of Heavy Metal Contaminated Sediment	CEE: \$157,500 FCE: \$157,500
Prof. Jin-Guang Teng (CEE) 滕錦光教授	Dr Zheng Huang 黃正博士	Behaviour and Modelling of Hybrid Stiffened Double-skin Tubular Arches (Hybrid S-DSTAs)	CEE: \$152,500 FCE: \$152,500
Dr Zhenyu Yin (CEE) 尹振宇博士	Dr Jie Yang 楊傑博士	Coupled Hydro-mechanical Modeling of Suffusion in Gap-graded Cohesionless Soils	CEE: \$146,200 FCE: \$146,200

Joint Supervision Scheme with Chinese Mainland, Taiwan and Macao Universities 2019/20

To promote collaboration with overseas universities, a Joint Supervision Scheme with Chinese Mainland, Taiwan and Macao Universities was established several years ago. 7 PhD candidates in the Faculty of Construction and Environment (FCE) have been approved in the latest round of the scheme. Following are the details:

2019/20 年度中國內地、台灣及澳門大學博士生聯合指導計劃

為加強與中國內地、台灣及澳門的大學合作，理大數年前設立「博士生聯合指導計劃」。建設及環境學院共有七名博士生獲納入最新一輪的核准名單，詳情如下：

PolyU Supervisor (Dept) 理大導師 (學系)	Student (Univ) 學生 (大學)	Supervisor 導師	Project Title 項目名稱
Prof. Eddie Hui (BRE) 許智文教授	Shuyuan Li 李淑嫻	Prof. Haizhen Wen (Zhejiang University) 溫海珍教授 (浙江大學)	The Impact of Urban Landscapes on Housing Price: Heterogeneity across Housing Submarkets and Time 城市景觀對住宅價格的影響: 基於住宅子市場和時間異質性
Prof. Meng Ni (BRE) 倪萌教授	Yang Wang 汪洋	Prof. Kui Jiao (Tianjin University) 焦魁教授 (天津大學)	Morphological Evolution Process in SOFC Microstructure based on Phase Field Method 基於相場方法的固體氧化物燃料電池微結構形態學演化過程研究
Prof. Shiming Deng (BSE) 鄧仕明教授	Jielin Luo 羅介霖	Prof. Qin Wang (Zhejiang University) 王勤教授 (浙江大學)	Theoretical Optimization and Experimental Study of a Moderate High Temperature Heat Pump Using Zeotropic Mixtures 非共沸混合工質中高溫熱泵系統的理論優化與實驗研究
Prof. Lin Lu (BSE) 呂琳教授	Huiping Ji 嵇慧萍	Prof. Yaning Chen (Xinjiang Institute of Ecology and Geography, China Academy of Sciences) 陳亞寧教授 (中國科學院新疆生態與地理研究所)	Investigation on Water Quality in Typical Watersheds and Fresh Water Supply in Hong Kong under Climate Change 氣候變化背景下香港典型流域的水質研究及淡水供應
Dr Minchen Wei (BSE) 魏敏晨博士	Dandan Hou 侯丹丹	Prof. Y.D. Lin (Fudan University) 林燕丹教授 (復旦大學)	Quantitative Study and Modelling of the Effect of Time - Light Modulation on Photobiological Effects 時間-光調制對光生物效應影響的量化研究及模型建立
Prof. Hai Guo (CEE) 郭海教授	Zhihui Hu 胡智慧	Dr Tao Xu (Nanjing Forestry University) 許濤博士 (南京林業大學)	Study on Degradation of Vehicle Exhaust by Wide Spectral Response Biomass Composite Photocatalyst Supported on Pavement 路面負載寬光譜響應型生物質複合光催化劑降解尾氣研究
Dr Zhenyu Yin (CEE) 尹振宇博士	Zhao Lu 陸釗	Dr Wanhuan Zhou (University of Macau) 周萬歡博士 (澳門大學)	Estimation of Mechanical and Hydraulic Characteristics of Completely Decomposed Granite by the Soil Micro-structure 基於微觀結構試驗手段的花崗岩殘積土力學和水力學特征規律研究

Staff Promotions

The Faculty of Construction and Environment (FCE) is pleased that 5 of its academics have been promoted to professors with effect from 1 July 2020. Following are their profiles.

Prof. Fu Xiao of the Department of Building Services Engineering (BSE) received her double bachelor degrees from Xi'an Jiao Tong University in 1998, her master degree in refrigeration and cryogenics from Shanghai Jia Tong University in 2001 and PhD in BSE from PolyU in 2004. Before joining PolyU as a lecturer in 2006, she worked in Ove Arup & Partners Hong Kong Ltd for one year.

Prof. Xiao has conducted innovative multidisciplinary research on building energy and automation, specifically in optimal control and diagnosis of building energy systems as well as big data analytics and AI for smart energy-efficient and resilient buildings. She has published over 100 SCI journal papers including two ESI highly cited papers and secured 11 external competitive research grants as the PI or Co-PI. She has received numerous awards, including the Hanson I&T Outstanding Award from the 2018 Energy Saving Championship Scheme launched by the Environment Bureau and the Electrical and Mechanical Services Department of the Hong Kong Government, 2017 Annual Best Paper Award from the *Journal of Refrigeration*, ASHRAE Technology Award 2014, etc. Prof. Xiao sits on the editorial boards of international journals of *Automation in Construction* and *Energy and AI*. She is a committee member of the Building Services Division of HKIE.

Prof. Yuhong Wang of the Department of Civil and Environmental Engineering (CEE) graduated from Tongji University with a bachelor's degree in 2003 and later obtained his PhD degree from the University of Kentucky. He successively worked as a research engineer at the Kentucky Transportation Research Center and as a tenure-track assistant professor at both Lawrence Technological University and then East Carolina University. He started his work at PolyU as an assistant professor in 2010. His main research areas include pavement engineering, construction project management and infrastructure management. Prof. Wang has led and participated in over 50 scientific research projects in the United States and Hong Kong, publishing more than 100 papers and books. He also holds leadership positions in various academic/professional bodies and serves as the editor of several international journals. He was a registered professional engineer in the United States.

晉升之喜

建設及環境學院欣然宣佈，下述五位學者於2020年七月一日晉升為教授，其簡歷如下：



肖賦教授任教於屋宇設備工程學系，1998年畢業於西安交通大學，獲雙學士學位，其後前往上海交通大學深造，2001年取得製冷與低溫工程碩士資格，2004年於理工大學修畢屋宇設備工程博士學位，在奧雅納香港工作一年後，於2006年以講師身份加入理大。

肖教授進行建築節能與自動化方面的創新型跨學科研究，專攻建築能源系統的優化控制和診斷，以及高效節能智慧建築的大數據分析和人工智能技術。多年來，她發表了逾百份SCI學術期刊論文，當中兩份更躋身「ESI高被引論文」之列，又曾以首席研究員或共同首席研究員身份，成功取得十一筆校外競爭性科研撥款。她屢獲科研及應用獎項，包括由特區政府環境局及機電工程署聯合頒發的「2018慳神創科大比拼——卓越創科慳神獎」、《製冷學報》2017年最佳論文獎、美國採暖、製冷與空調工程師學會(ASHRAE)2014年科技獎等。肖教授現為《Automation in Construction》及《Energy and AI》兩份國際期刊的編務委員，也是香港工程師學會屋宇裝備分部委員會委員。



土木及環境工程學系的王予紅教授1996年畢業於同濟大學，2003年獲得美國肯塔基大學博士學位，歷任肯塔基州運輸研究中心研究工程師、勞倫斯理工大學和東卡羅來納大學終身製助理教授，曾為美國註冊專業工程師，2010年以助理教授身份加入理大，研究範疇包括路面工程、建設項目管理及基建管理。他在美、港兩地先後主持或參與五十餘個科研項目，出版逾百份論文和著作，現時在多個學術/專業組織擔當要職，並為多份國際學報編輯。

Prof. Wang's current research topics and interests are future urban green infrastructures, aiming to make our cities cleaner, smarter, more resilient, and more environmentally friendly. He is leading two major research projects in these areas. The first is the Urban Nature Laboratory (UNaLab) funded by the European Commission Research Grant Council, and the other is the development of smart pavement systems funded by the Research Impact Fund.

Prof. Songye Zhu received his bachelor and master degrees in structural engineering from Tongji University, China, and his PhD degree in civil engineering from Lehigh University, USA. He is currently Professor of Structural Engineering in CEE. His major research interests are in the fields of smart materials and structures, structural control and health monitoring, and performance-based earthquake engineering. He has published over 90 peer-reviewed journal papers and been granted five patents. His research works have received numerous international awards from different professional societies and publishers. Currently, he serves as an editor of *Advances in Structural Engineering*, associate editor of *International Journal of Nano and Smart Materials*, Secretary General of the Hong Kong Branch of National Rail Transit Electrification and Automation Engineering Technology Research Center. He is also a past president of the American Society of Civil Engineers – Hong Kong Section.

Prof. George Zhizhao Liu is an expert in the international GNSS (global navigation satellite systems) community. Over the past decade, the Micro-Laboratory of Atmospheric Research and Geomatics Engineering (Micro-LARGE) under his leadership has focused on the development of innovative algorithms for more precise and reliable GNSS positioning and navigations, tropospheric water vapor observation and modeling using multiple sensors, as well as ionospheric scintillation observation and modeling in the equatorial and low-latitude region. His group is the first to utilize satellite signals from the four GNSS systems to study ionospheric scintillations in the equatorial and low-latitude region. Prof. Liu's Lab is also collaborating with the Hong Kong Observatory to use his techniques and unique datasets to enhance the reliability of weather forecasting in Hong Kong and the Greater Bay Area.

In the global arena, Prof. Liu's Google scholar citation was ranked as 1st and 6th in the fields of troposphere and water vapor; 53rd, 64th and 65th in the fields of GPS, ionosphere, GNSS, respectively, as of the end of 2019. He was one of the three recipients at PolyU to receive the RGC inaugural Early Career Award in 2012 and was a two-time recipient of the LSGI Departmental Research Excellence Award. Over the past decade, he secured 7 RGC GRF/ECS research grants as the Principal Investigator (PI), including 3 GRF/ECS projects with a full score 5.0. As a PI, Prof. Liu has secured nearly HK\$ 10 million in research funding and over HK\$ 37 million as PI/Co-PI/Co-I.

王教授主力研究未來的城市綠色基建，希望使我們的都市變得更清潔、更聰明、更具韌性，並更符合環保原則。他現時領導兩項大型相關研究，分別是由歐盟委員會及研資局聯合資助的「城市自然實驗室」計劃，以及獲「研究影響基金」撥款的智慧路面系統研發計劃。



朱松曄教授是同濟大學建築工程本科專業及碩士、美國理海大學土木工程博士，現職理大土木及環境工程學系結構工程教授，研究範圍主要包括智能材料與結構、結構控制與健康監測、基於性能的地震工程，在國際學術期刊先後發表逾九十篇論文，並獲授五項專利，科研工作屢獲國際專業學會及出版社嘉獎。他現為《結構工程進展》編輯、《國際納米及智能材料學報》副編輯，以及國家軌道交通電氣化與自動化工程技術研究中心(香港分中心)秘書長，並曾經擔任美國土木工程師學會香港分會會長。



劉志趙教授是全球導航衛星系統(GNSS)專家，過去十年，由他領導的大氣研究與測繪工程實驗室專注研發GNSS定位導航創新算法，利用GNSS衛星信號和多重傳感器進行對流層水汽觀測及建模，以及對赤道及低緯度地區的電離層閃爍進行觀測和建模，提高GNSS定位導航的精準度和可靠性。其團隊是世界上第一個綜合利用四個GNSS系統的衛星信號研究赤道及低緯度地區電離層閃爍的研究小組。劉教授的實驗室現在正與香港天文台合作，期望透過應用其技術和獨有資料，以提升香港及大灣區預測極端天氣的準確性。

在國際層面，劉教授的論文經常獲其他學者引用。「谷歌學者引文榜」在2019年底的統計顯示，在有關對流層和大氣水汽的領域，其論文獲引用次數分別高踞榜首及第六位；而在全球定位系統(GPS)、電離層及GNSS三個專題上，則分別名列第五十三、六十四及六十五。研資局於2012年設立首屆「傑出青年學者計劃」，他是理大三位獲獎者之一；並兩度獲土地測量及地理資訊學系頒發「卓越成就獎(科研)」，近十年來，劉教授以首席研究員身份七度獲研資局批出「優配研究金」或「傑出青年學者計劃」研究撥款，其中三個項目更取得五分滿分。以首席研究員身份計算，他成功申請的研究撥款接近一千萬港元；由他擔任共同首席研究員及研究員的項目，總資助額則超過三千七百萬港元。

Prof. Bo Wu of the Department of Land Surveying and Geo-Informatics (LSGI) has been appointed one of its associate heads with effect from 1 July 2020. He received his PhD in photogrammetry and remote sensing from Wuhan University in 2006 before working as a post-doctoral researcher at the Ohio State University from 2006 to 2009. He subsequently joined PolyU in July 2009 and became an associate professor in July 2015.

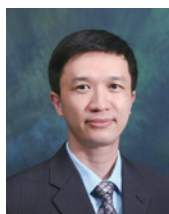
His main research areas are photogrammetry and remote sensing, with a focus on planetary remote sensing and science. He worked on NASA-funded projects for Mars and Moon exploration missions at the Ohio State University. Since joining PolyU, he has worked on landing site mapping and analysis for China's Chang'E-3 and Chang'E-4 lunar missions, contributing to their successful landing on the Moon in 2013 and 2019 respectively.

Publishing over 120 peer-reviewed articles in international journals and conferences, he has secured total funding of over HK\$18 million from the Hong Kong Research Grants Council (RGC), the National Science Foundation of China (NSFC), and the China Academy of Space Technology (CAST), including a RGC Research Impact Fund of HK\$6.38 million. His research has been recognized with a number of awards, including the Leader of the Year Award 2019, Dean's Award for Outstanding Achievement in Research Funding, the R. Alekseev Award and a Gold Medal from the 44th International Exhibition of Inventions of Geneva, the Talbert Abrams Award from ASPRS, the Duane C. Brown Senior Award for Photogrammetry, etc. He co-chairs working groups of the International Society for Photogrammetry and Remote Sensing. He is an associate editor/ editorial board member of three SCI journals.

In addition, the following scholars have been promoted to associate professors:

Dr Esther Hiu Kwan Yung held MSc and PhD degrees from the Department of Real Estate and Construction of the University of Hong Kong. She also obtained a bachelor of architecture from the University of New South Wales, Australia. Dr Yung worked as an assistant architect in architectural firms in Hong Kong before studying for her PhD.

Dr Yung was appointed assistant professor in the Department of Building and Real Estate (BRE) in August 2014. Her research focuses on ageing and urban environment as well as built heritage conservation. She received the Departmental Research Publication Award (2014-15). She has obtained funding from the Hong Kong Research Grants Council and the Hong Kong Government Policy Innovation and Coordination Office (PICO). An associate editor of the *Journal of Housing and the Built Environment* and a chartered surveyor of the RICS under the Planning and Development pathway, she had been a member of the Authorized Person Registration Committee and the Advisory Committee of the Barrier Free Access of the Buildings Department.



升任教授。

吳波教授於 2020 年七月一日獲任命為土地測量及地理資訊學系副系主任(研究)。他 2006 年于武漢大學獲得攝影測量與遙感學博士學位，2006 至 2009 年於美國俄亥俄州立大學進行博士後研究，2009 年七月加入理大，2015 年七月升任副教授，2020 年七月

吳教授的主要研究領域為攝影測量與遙感、行星遙感與行星科學。在俄亥俄州立大學期間，他曾參與美國太空總署資助的火星及月球探測任務配套科研項目。加入理大後，他為中國的嫦娥三號及四號登月任務進行著陸區測繪及地形地貌分析，助探測器於 2013 及 2019 年成功著陸月球表面。

吳教授在國際知名期刊和學術會議發表了超過一百二十篇論文，他從香港研究資助局、國家自然科學基金及中國空間技術研究院等取得的撥款，合共超過一千八百萬港元，當中包括一筆六百三十八萬港元、來自研資局「研究影響基金」的款項。他的研究成果豐碩，屢獲殊榮，如 2019 年傑出領袖獎、院長特設卓越成就獎(科研經費)、第四十四屆日內瓦國際發明展特別優異獎及金獎、美國攝影測量與遙感學會 Talbert Abrams 獎、俄亥俄州立大學 Duane C. Brown 攝影測量獎等。現時，吳教授在國際攝影測量與遙感學會擔任多個工作組的聯席組長，也是三份 SCI 期刊的副主編/編委。

另外，下述學者亦獲晉升為副教授：



容曉君博士擁有香港大學房地產及建設系理學碩士及博士學位，也是澳洲新南威爾斯大學建築學學士，修讀博士前，曾於香港的建築師樓任職助理建築師。

容博士 2014 年八月出任建築及房地產學系助理教授，重點研究人口老化、城市環境及歷史建築的保育，在 2014-15 年度獲學系頒發研究論文獎，曾獲香港研究資助局和特區政府政策創新與統籌辦事處撥款。她是《房屋及建築環境學報》副編輯及英國特許測量師學會特許測量師(規劃及發展)，曾任屋宇署轄下認可人士註冊事務委員會及暢通無阻通道諮詢委員會委員。

Dr Minchen (Tommy) Wei obtained his bachelor degree at Fudan University (China) in 2009, MSc and PhD degrees in architectural engineering at The Pennsylvania State University (USA) in 2011 and 2015 respectively. He joined PolyU in November 2015 as an assistant professor in the Department of Building Services Engineering (BSE). Since then, he has obtained the Hong Kong General Research Fund (GRF) in 2016, 2018, and 2019, the National Science Foundation of China (NSFC) funding in 2017 and 2019, and the Public Policy Research (PPR) funding in 2018. His work is also funded by industry partners (e.g., Facebook, Huawei, and WSP). Dr Wei's research mainly focuses on fundamental color science, illuminating engineering, and the application of color science on imaging systems (e.g., camera, display, augmented reality, mixed reality). Currently, he is the vice chairman of CIE Hong Kong, representing Hong Kong in CIE Division 1 Color and Vision as well as Division 8 Image Technology as a voting member.



魏敏晨博士是復旦大學工學學士(2009年)、美國賓夕法尼亞州立大學建築工程學碩士(2011年)及博士(2015年)。他於2015年十一月加入理大擔任屋宇設備工程學系助理教授。其研究工作除了獲香港研資局「優配研究金」(2016、2018及2019年)、國家自然科學基金(2017及2019年)及公共政策研究資助計劃(2018年)撥款，亦得到業界夥伴(Facebook、華為、WSP等)支持。其研究重點包括基礎顏色科學、照明工程，以及色度學在影像系統(如相機、顯示器、擴增實境及混合實境)的應用。魏博士現任香港照明學會副主席，代表香港於國際照明學會第一分部(顏色與視覺)及第八分部(影像系統)投票。

Head of LSGI to Lead SCRI

Prof. John Shi, Head of the Department of Land Surveying and Geo-Informatics (LSGI), has been appointed Director of the newly established Smart Cities Research Institute (SCRI) with effect from 1 May 2020.

A platform for PolyU experts to develop an international leading area in Smart Cities, the SCRI will capitalize on existing research strengths such as Smart Mobility, focusing on the unique traffic characteristics of Hong Kong in addition to driving Smart City development in Hong Kong and the Greater Bay Area.

土地測量及地理資訊學系系主任出掌智慧城市研究院



土地測量及地理資訊學系系主任史文中教授，最近獲理大委任出掌新成立的智慧城市研究院，任命於2020年五月一日生效。

該院是薈萃理大專才發展智慧城市技術、力爭躋身國際前列的平台。它將善用理大在智慧出行等領域的既有科研優勢，集中研究香港交通的獨有特色，並在香港以至大灣區推動智慧城市的發展。

BRE Scholar Appointed to Task Force on Subdivided Units

Prof. Eddie Hui of the Department of Building and Real Estate (BRE) has been appointed by the HKSAR Government to serve on a task force for studying the tenancy control of subdivided units for a period of 18 months till October 2021.

As one of the government's initiatives to provide more support for grassroots and underprivileged people, the task force will explore the feasibility and options for tenancy control of subdivided units in Hong Kong. It is led by Dr William Leung, Chairman of the Estate Agents Authority.

In addition, the Hong Kong Housing Authority has also appointed Prof. Hui a member of the Subsidised Housing Committee for two years from 1 April 2020.

建築及房地產學系學者加入政府「劏房租務管制研究工作小組」

建築及房地產學系的許智文教授，最近獲特區政府委任為「劏房租務管制研究工作小組」成員，任期十八個月，至2021年十月止。

此舉是政府加強支援基層及弱勢社群的措施之一。工作小組由地產代理監管局主席梁永祥博士領導，將探討在香港實施劏房租金管制的可行性和可行方案。

另外，許教授亦於2020年四月一日獲香港房屋委員會任命為轄下資助房屋小組委員會成員，任期兩年。

Donation of Face Masks by CEE Scholar

To ease the shortage of masks for PolyU staff and students, Dr Peng Wang of the Department of Civil and Environmental Engineering (CEE) and his wife recently donated 10,000 face masks to the university. Their donation reflected the PolyU spirit of caring for the community.

土木及環境工程學系學者向理大捐贈口罩

為紓緩理大職員和學生口罩短缺的問題，土木及環境工程學系的王鵬博士偕太太向大學捐贈了一萬個口罩，充分體現理大關愛社群的精神。

Most Outstanding PolyU Student Award 2019

Miss Ching Tung Ip, a full-time final-year student in the Department of Civil and Environmental Engineering (CEE), has won the prestigious Most Outstanding PolyU Student Award 2019. She was chosen for her outstanding academic achievement, strong leadership ability, extensive involvement in extra-curricular activities, substantial community service, and good personal qualities. Prior to winning this award, Miss Ip first won the Outstanding Student Award of CEE, then a similar award from the Faculty of Construction and Environment (FCE), in addition to numerous scholarships. She believes that an outstanding student should be mature, responsible, and independent. She has certainly demonstrated those qualities with her commitment to serve others. She was a mental health ambassador in 2016/17 and a student ambassador for the university before serving as the Chairlady of the Student Chapter of the Hong Kong Institution of Engineers (HKIE) at PolyU in 2019/20.

The Outstanding Students Award Scheme of PolyU is held each year to motivate students to excel in both academic and non-academic pursuits, cultivating a campus culture and public image that is congenial for the development of all-round graduates. Nominees for the award first compete at the departmental level, the winners of which then compete at the faculty level. The winner of the Most Outstanding PolyU Student Award is chosen from the 8 awardees of the Outstanding Student Award of Faculty/ School.

BSE Student Wins Prestigious Scholarship

A third-year undergraduate from the Department of Building Services Engineering (BSE), Miss Siyan Wang, has been awarded the President Emeritus Professor Poon Chung-kwong Scholarship 2019/20 of HK\$20,000 for her outstanding academic achievement and active involvement in extra-curricular activities. She participated in an engineering summer programme in Cambridge in 2019 and volunteered to be a group leader for the International Wildlife Conservation Programme at Khorat Zoo in Thailand in 2018. Self-motivated and hard-working, Miss Wang is also the recipient of the Commercial Radio 50th Anniversary Scholarship and a BSE Scholarship for mainland Chinese student.

FCE One-Year Top-up Studentship Scheme

A PhD candidate in the Department of Building Services Engineering (BSE), Zhe Song, has been supported by the FCE one-year top-up studentship scheme for admission to a 3-year PhD programme. He will commence his study at PolyU in July 2020. His supervisors will be Prof. Hongxing Yang and Dr Sunliang Cao.

理大最卓越學生獎 2019

土木及環境工程學系全日制畢業班學生葉靖童同學榮獲2019年理大「最卓越學生獎」。葉同學學業成績優秀，擁有出眾領導才能，並積極參與課外活動，熱心服務社會，品格優良，因而獲頒此殊榮。勇奪此獎前，葉同學已先後榮膺所屬學系及本院的「最卓越學生」，也是無數獎學金的得主。她認為成熟、獨立和具責任感，是成為卓越學生的必備條件。葉同學致力服務他人的精神已足證葉同學具備這些性格特質。她早於2016/17年度已擔任大學的「精神健康大使」，其後除了出任「學生大使」一職，更是香港工程師學會理大學生分會2019/20年度主席。

理大每年均頒發「最卓越學生獎」，鼓勵同學在學術及非學術範疇力爭上游，建立有利於學生全人發展的校園文化及公眾形象。所有獲提名的學生須首先在所屬學系脫穎而出，進而在學院層面接受評審。理大「最卓越學生獎」得主，則會從大學八個學院的「最卓越學生」中選出。



屋宇設備工程學系學生獲「潘宗光教授獎學金」



屋宇設備工程學系三年級生王思言小姐憑出色的學業成績和課外活動表現成為2019/20年度「榮休校長潘宗光教授獎學金」得主，獲頒二萬港元。她曾在2019年參加英國劍橋的工程學暑期課程，並於2018年前往泰國Khorat動物園，擔任國際野生動物保育計劃的義工領袖。王同學勤奮積極，奪得今次殊榮前，已先後獲頒「商業電台五十周年獎學金」，以及屋宇設備工程學系為中國內地學生而設的獎學金。

建設及環境學院「博士生一年制補助獎學金計劃」

屋宇設備工程學系博士生宋哲，最近獲本院「博士生一年制補助獎學金計劃」資助，修讀為期三年的博士課程。他將於2020年七月在理大開課，其導師為楊洪興教授及曹孫亮博士。

MSc Scholarship Students Graduate with Distinction

Several Master of Science students who received Entry Scholarships recently completed their studies in 2019/20 with Distinction. Following are some of their thoughts on their experiences at the Faculty of Construction and Environment.

Mr Tharindu Abhayajeewa, an MSc graduate in Project Management, had an amazing learning experience. His study programme provided an exciting opportunity to meet students from many countries with diverse cultural backgrounds and values. Living in the bustling and vibrant city of Hong Kong was an unforgettable experience in itself. He advises students to make the best use of the many opportunities at PolyU to improve their knowledge and skills. With his enhanced entrepreneurial skills, he plans to focus on startups in the real estate industry.

Mr Chi Ho Chan, an MSc graduate in High Performance Buildings, found the workshops in his core subjects to be a memorable experience. He advises students to manage their study schedules so that they can finish their revision on time. He looks forward to applying the knowledge he gained from the programme in the industry.

Miss Jian Cheng, an MSc graduate in Sustainable Urban Development, recalls the great efforts made by her teachers and fellow students to maintain teaching and learning activities during the pandemic. Her advice for other students is to "stay hungry and foolish." She plans to work in the real estate sector in the future.

Mr Wing Hong Or, an MSc in Geomatics (GIS), had classmates with wide-ranging ages and places of origin, some of whom were experts and professionals. He advises students to make good use of resources and opportunities provided by the faculty and department, as well as other university units. He plans to acquire further knowledge in his field.

For Mr Kin Wing Tsang, an MSc graduate in Construction Law and Dispute Resolution, it was a memorable experience to meet self-motivated students from different professional backgrounds who were eager to share their knowledge. His advice for other students is to learn as much as possible in their area of interest. Having gained a solid understanding of various forms of alternative dispute resolution, he plans to pursue membership with the Hong Kong Mediation Accreditation Association Limited and become a qualified mediator in the construction industry.

Mr Ka Lok Wong, an MSc graduate in Building Services Engineering, enjoyed learning with his classmates. He believes students can excel in their studies if they have good time management skills. He hopes to be a professional chartered building services engineer in the future.

獎學金得主以優異成績畢業

多位獲得新生獎學金的同學，都在2019/20年度以優等成績完成理學碩士課程。以下是他們對於在建設及環境學院深造的感受和隨想。



項目管理碩士畢業生Tharindu Abhayajeewa先生非常喜歡理大的學生生活。在班上，他可以接觸來自不同國家、文化背景與價值觀各異的同學；而住在香港這樣的活力都會，本身就是一種難忘的體驗。他寄語同學善用理大提供的種種機會充實自己，提升知識和技能。自覺營商技巧大有改進的他，已計劃在房地產界創業。



對高效能建築碩士課程畢業生陳志豪先生來說，核心科目的工作坊最令他印象深刻；而若要如期完成溫習，先決條件是妥善管理時間。談到事業，他則期望在業界學以致用。



修畢可持續城市發展學碩士學位的成健小姐，仍然記得師生怎樣在抗疫期間竭盡所能，力保教學活動維持正常。她計劃投身房地產業，並建議一眾師弟妹謹記「求知若飢、虛心若愚」的道理。



柯穎康先生是測繪及地理資訊學（地理資訊）碩士畢業生，班上同學不僅背景各異，年齡差距也大，部分更是專家和專業人士。有意繼續鑽研所屬範疇的他，建議同學好好把握學系、學院以至大學提供的資源和機會。



讓建築法及爭議解決學碩士畢業生曾建榮先生最難忘的事情，就是認識一群非常自動自覺的同學。大家各有專業背景，共通點是樂意分享知識。他寄語同學因應自己的興趣努力學習。修畢碩士課程後，他對各類調解方案均有深厚認識，因此計劃申請香港調解資歷評審協會會員資格，成為建造業的認可調解員。



修讀屋宇設備工程的黃家樂先生。他非常享受與同學一起學習的時光，並深信良好的時間管理技巧有助考取優異成績。談到志向，他則希望成為專業的特許屋宇設備工程師。

CEE Alumnus Elected VP of PolyU Alumni Association

Mr Kwok-fai Yau, a 1990 alumnus of the Hong Kong Polytechnic, has been elected a Vice President of the Federation of PolyU Alumni Associations. A long-time supporter of the university, Mr Yau was active in its Civil and Environmental Engineering Alumni Association prior to his election. He has more than 20 years of experience in the construction industry, becoming a University Fellow in 2017/2018 for his significant contributions to PolyU and the community. He played a vital role in establishing a number of endowed professorships at the Faculty of Construction and Environment (FCE). In his new role, he hopes he can do more for his alma mater.

土木及環境工程學系校友獲選理大校友會聯會副會長

香港理工學院1990年畢業生游國輝先生，最近獲選為理大校友會聯會副會長。游校友心繫大學，榮膺此職前，已積極參與土木及環境工程系校友會會務。他在建造業擁有逾二十年經驗，因對理大及社會貢獻良多，於2017/2018年度獲理大頒授院士頭銜。建設及環境學院得以設立多個勵學教授席，游先生實居功不少。他期望在履新後再接再厲，回饋母校。

Alumni Donations to Benefit FCE Students

A recipient of the 2011 Outstanding PolyU Alumni Award, Ir T.K. Tsui, has donated HK\$1 million to support students from the Faculty of Construction and Environment (FCE) to gain first-hand study experience outside Hong Kong. He hopes his donation would help PolyU in its mission of educating students to be productive and caring citizens.

Ir Tsui graduated more than 50 years ago with a Diploma in Building from the Hong Kong Technical College, a predecessor of PolyU. He started his career at the Public Works Department of the Hong Kong Government and the China Light and Power Co. Limited before setting up his own development consulting firm in 1973. He is well known for his philanthropy in local charities and higher education. A founding member of the PolyU Development Foundation, he has sponsored many fund-raising events of the university and supported its students with numerous bursaries over the years.

Another donor recently also gave HK\$1 million to the Department of Civil and Environmental Engineering (CEE), with HK\$250,000 for entry scholarships for outstanding local secondary students and the rest for sponsoring student activities such as study tours, international competitions etc.

傑出校友捐款惠澤本院學生

於2011年榮獲理大傑出校友的崔德剛工程師，最近捐出港幣一百萬元，支持建設及環境學院的學生負笈海外，增廣見聞。他期望這筆捐款能幫助理大履行使命，培育學生貢獻社會、關愛別人。

崔校友逾半世紀前於理大前身香港工業專門學院取得建築學文憑，先後任職香港政府工務局及中華電力有限公司，及後於1973成立其個人顧問公司。他熱心捐助本地慈善及高等教育機構，為理大發展基金創會會員，歷年來贊助大學無數籌款活動，並設立不少助學金，惠澤學生。

土木及環境工程學系最近亦獲另一位善長捐出港幣一百萬元，當中二十五萬元為本地優異中學生的入學獎學金，餘數將用於資助遊學、國際比賽等學生活動。

Events

活動剪影

Guangdong-Hong Kong-Macau Joint Laboratory of Environmental Pollution Processes and Control Launched

As one of the first ten joint laboratories in the Greater Bay Area (GBA), the Guangdong-Hong Kong-Macau Joint Laboratory of Environmental Pollution Processes and Control unveiled its plaque on 19 December 2019 in Guangzhou. The joint laboratory was a venture led by the Guangzhou Institute of Geochemistry (GIG) of the Chinese Academy of Sciences (CAS) in collaboration with The Hong Kong Polytechnic University and the Guangdong Institute of Eco-environmental Science and Technology, with Prof. Ping'an PENG (Professor of GIG and CAS Academician) and Prof. Xiangdong LI (Chair Professor of CEE at PolyU) as the co-directors. The establishment of the joint laboratory marks the further integration of research teams and resources in the GBA, and gives a big boost to the large-scale collaborative research to address pressing environmental issues in the region, such as air quality and human health, ecological risks of emerging contaminants in estuarine and coastal environments, environmental quality in city clusters, control and remediation of soil mixed contamination, and disposal of municipal waste and sewage treatment in rural areas.

粵港澳大灣區環境污染過程與控制聯合實驗室成立

由中國科學院廣州地球化學研究所、香港理工大學、廣東省生態環境技術研究所合作成立的「粵港澳大灣區環境污染過程與控制聯合實驗室」，已於2019年十二月十九日在廣州舉行揭牌儀式。該實驗室是大灣區首十所聯合實驗室之一，由彭平安教授(廣州地球化學研究所教授暨中科院院士)及李向東教授(理大土木及環境工程學系講座教授暨建設及環境學院副院長)共同出任主任。成立聯合實驗室，顯示大灣區的研究人員及資源進一步融合，大大有助開展大型聯合研究，從而解決區內迫在眉睫的環境問題，包括空氣質素與公眾健康、河口及海岸污染物構成的生態風險、城市群的環境質素、土壤混合污染的控制及整治，城市廢物處理，以及鄉郊地區的污水排放。



NSFC Workshop

On 22 January 2020, a workshop on strategies for applying for research funding from the National Natural Science Foundation of China (NSFC) was held in the Faculty. After an opening speech from Prof. You-Lin Xu, Dean of the Faculty of Construction and Environment (FCE), Prof. Tao Wang of the Department of Civil and Environmental Engineering (CEE) shared his successful experience in writing proposals for the Major Research Plan Programme. Dr Minchen Wei of the Department of Building Services Engineering (BSE) and Prof. Geoffrey Shen, Associate Dean (Teaching), also shared their experiences of proposal-writing for the Young Scientists Fund and the NSFC General Programme respectively. Their presentations were followed by views from Prof. John Shi, Head of the Department of Land Surveying and Geo-Informatics (LSGI), who spoke from his perspective as a panel member. The workshop was well received with more than 40 participants. Much discussion was generated by the workshop, which ended with a closing speech from Prof. Xiangdong Li, Associate Dean (Research).

國家自然科學基金工作坊

本院於2020年一月二十二日舉辦工作坊，講解申請國家自然科學基金(NSFC)各類研究撥款的策略。院長徐幼麟教授發表開幕講話後，土木及環境工程學系的王韜教授隨即與在座同事分享其撰寫建議書申請「重大研究計劃」的成功經驗。屋宇設備工程學系的魏敏晨博士及本院副院長(教務)沈岐平教授，則分別講述草擬建議書申請「優秀青年科學基金」及NSFC「面上項目」的心得。各同事報告完畢後，土地測量及地理資訊學系系主任史文中教授便以評審小組成員的角度提出意見。當日出席的同事超過四十位，席上討論熱烈，最後由副院長(科研)李向東教授作總結發言。



Prof. Xiangdong Li

BSE Academic Featured on TV

On 13 June 2020, Prof. Simon Deng of the Department of Building Services Engineering (BSE) was featured in a TVB segment on environmental issues of commercial buildings in Hong Kong. Taking the power consumption of air conditioning systems in his laboratory as an example, he showed that electricity consumption increased by about 8% when the temperature of the air conditioning was lowered from 26 to 25 degree Celsius. If the temperature was lowered from 26 to 22 degree Celsius, the power consumed at the laboratory was raised by 37%, or 25% for a commercial building.

The TV programme further revealed that shopping malls with an average temperature of around 23 degree Celsius were rated BEAM plus platinum, the highest rating awarded by the Hong Kong Green Building Council. The recommended temperature by the government was 24 to 26 degree Celsius.

屋宇設備工程學系學者接受電視訪問

2020年六月十三日，屋宇設備工程學系的鄧仕明教授接受無線電視訪問，暢談香港商業樓宇的環保問題。他以其實驗室的空調系統耗電情況為例，如將空調溫度從攝氏二十六度調低至二十五度，將導致耗電量上升約百分之八；如實驗室的溫度從攝氏二十六度下調至二十二度，耗電量更會增加百分之三十七，商廈則會上升百分之二十五。

購物商場方面，如能將平均溫度保持於攝氏二十三度左右，現時已可獲香港綠色建築議會頒發最高級別的「綠建環評鉅金級認證」；政府建議的室內溫度則介乎攝氏二十四至二十六度。

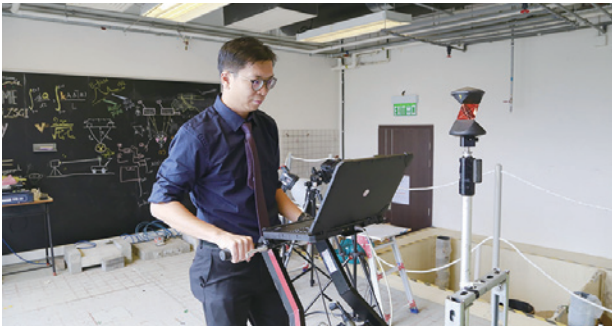
Webinar on Smart Water Technologies

On 29 May 2020, a webinar on smart water technologies was held at the Underground Utility Survey Lab of the Department of Land Surveying and Geo-Informatics (LSGI). Jointly organized by LSGI and the Institute of Entrepreneurship, the webinar attracted over 270 online participants. Mr Roger Wong, Assistant Director of the government's Water Supplies Department (WSD), was invited to give a speech on its water loss management strategy. It was followed by a talk from Ir Dr Wallace Lai, Associate Professor of LSGI, on non-destructive water leakage imaging and diagnosis for underground utilities. The challenges and strategy of water loss management in

智能水務技術網上研討會

2020年五月二十九日，土地測量及地理資訊學系聯同理大企業發展院，於地底管線研究實驗室合辦了一個有關智能水務技術的網上研討會，與會者超過二百七十人。水務署助理署長黃恩諾先生就政府避免浪費食水的管理策略致辭後，土地測量及地理資訊學系副教授賴緯樂博士工程師緊接發言，講述如何以非破壞性方式為地底水管造像及進行診斷。與會者除了討論水務署在避免浪費食水方面的挑戰和管理策略，賴博士更即席示範非破壞性診斷技術，並介紹由其團隊設計、佔地一萬七千平方呎的水務署青衣北低地食水配水庫滲漏檢測及診斷訓練基地。

the WSD were discussed. Non-destructive diagnostic technologies were demonstrated by Dr Lai, who also presented his team's design of WSD's 17,000 sq ft training ground for leak detection and diagnosis at Tsing Yi North Low Level Fresh Water Service Reservoir.



Dr Wallace Lai



Mr Roger Wong

Taught Postgraduate Information Seminar Held Online

To promote taught postgraduate programmes of the Faculty of Construction and Environment (FCE) in spite of the coronavirus outbreak on the mainland and elsewhere, an information seminar was held online for the first time on 23 February 2020. About 100 prospective students logged into the overview session, which was presented online by Prof. Geoffrey Shen, Associate Dean (Teaching). 12 programme leaders were also online in parallel consultation sessions presenting information on their respective programmes, including the newly launched MSc programme in Urban Informatics and Smart Cities for 2020/21.

The Faculty of Construction and Environment offers a range of taught postgraduate programmes (see <http://www51.polyu.edu.hk/eprospectus/tpg>) related to sustainable urban development in general and the construction industry in particular. Taught by leading academics in their respective fields and accredited by professional organizations, these programmes not only keep up with the latest advances in technology, but also address the practical needs of industry and society. In the QS World University Rankings by Subject 2020, PolyU was ranked 19th for Civil and Structural Engineering, and 22nd for Architecture/Built Environment. Students graduating with its postgraduate degrees in these related fields are well prepared for advancement in their respective careers. Entry scholarships are available for applicants with outstanding academic records.

授課式碩士課程資訊講座改以網上形式舉行

鑑於新型冠狀病毒肆虐，建設及環境學院的授課式碩士課程資訊講座在2020年二月二十三日首次以網上形式舉行，約有一百名同學登入觀看由副院長(教務)沈岐平教授主持的簡介。十二位課程主任則分組主持網上諮詢環節，講述其主管課程的資訊，包括將於2020/21年度開辦的「城市信息學及智慧城市」理學碩士課程。

建設及環境學院開辦一系列涉及可持續城市發展、尤其是建造行業的授課式碩士課程。這些課程皆由界別內的頂級學者執教，並獲相關專業團體認可，緊貼科技發展之餘，亦以配合業界和社會的實際需要為先。在2020年QS世界大學分科排名榜上，理大在「土木工程」與「建築/建造環境」兩個領域分別名列第十九及二十二。攻讀這些碩士課程的理大畢業生均已作好準備，在事業上更進一步。大學更設有新生獎學金，歡迎學業成績出眾的學生申請。

Invitation for Programme Admissions

Both local and international students are welcome to apply.

課程招生

本地及海外學生均歡迎申請

Doctoral Programme International Real Estate and Construction	博士課程 國際房地產及建築	Department BRE
Master of Science (MSc)/Postgraduate Diploma (PgD) Building Services Engineering Civil Engineering Construction and Real Estate Construction Law and Dispute Resolution Environmental Management and Engineering Facility Management Fire and Safety Engineering Geomatics (Geographic Information Systems) Geomatics (Surveying) High Performance Buildings International Real Estate* Project Management Sustainable Urban Development Urban Informatics and Smart Cities	理學碩士 / 深造文憑 屋宇設備工程學 土木工程學 建築及房地產學 建築法及爭議解決學 環境管理及工程學 設施管理 消防及安全工程學 測繪及地理資訊學(地理資訊) 測繪及地理資訊學(測量) 高效能建築 國際房地產 項目管理 可持續城市發展學 城市信息學及智慧城市	Department BSE CEE BRE BRE CEE BSE BSE LSGI LSGI BSE BRE BRE FCE LSGI
Bachelor's Degree Building Engineering and Management Building Services Engineering Civil Engineering Environmental Engineering and Sustainable Development Environmental and Occupational Safety and Health (Top-up Degree Programme) Land Surveying and Geo-Informatics Property Management Structural and Fire Safety Engineering Surveying	學士學位 建築工程及管理學 屋宇設備工程學 土木工程學 環境工程與可持續發展學 環境及職業安全與健康 土地測量及地理資訊學 物業管理學 結構及消防安全工程學 地產及建設測量學	Department(s) BRE BSE CEE CEE CEE LSGI BRE CEE & BSE BRE
Higher Diploma Building Services Engineering Building Technology and Management (Engineering) Building Technology and Management (Surveying) Civil Engineering Geomatics	高級文憑 屋宇設備工程學 建築科技及管理學(工程) 建築科技及管理學(測量) 土木工程學 測繪及地理資訊學	Department BSE BRE BRE CEE LSGI

* Offered at the PolyU Zhejiang outpost

For programme details, please contact the departments or visit our websites:

如欲查詢詳細課程資料，請聯絡相關學系或瀏覽學系網頁：

Department of Building and Real Estate (BRE) 建築及房地產學系 2766-5807/5808/7770 www.bre.polyu.edu.hk	Department of Building Services Engineering (BSE) 屋宇設備工程學系 3400-3597 www.bse.polyu.edu.hk	Faculty of Construction and Environment (FCE) 建設及環境學院 3400 8496 www.polyu.edu.hk/fce	Department of Civil and Environmental Engineering (CEE) 土木及環境工程學系 2766-6068 www.cee.polyu.edu.hk	Department of Land Surveying and Geo-Informatics (LSGI) 土地測量及地理資訊學系 2766-5968 www.lsgi.polyu.edu.hk
--	---	--	--	--

Programme Entrance Requirements 課程入學要求

Please check the most up-to-date information on the Study@PolyU website at www.polyu.edu.hk/study.

請於 Study@PolyU 查閱最新資料，網址為 www.polyu.edu.hk/study.

Enquiries on Application and Admission 查詢申請及入學

Academic Registry
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong

香港理工大學教務處
香港九龍紅磡

Email 電郵：

ar.tpg@polyu.edu.hk	Master's/ Postgraduate Diploma programmes 理學碩士及深造文憑課程
ar.rpg@polyu.edu.hk	Master of Philosophy/ Doctor of Philosophy programmes 研究碩士及哲學博士課程
ar.ug@polyu.edu.hk	Full-time Bachelor's degree & sub-degree programmes – local applicants 全日制學士學位及非學位課程 — 本地申請人
ar.intl@polyu.edu.hk	Full-time Bachelor's degree & sub-degree programmes – non-local applicants 全日制學士學位及非學位課程 — 非本地申請人
ar.jee@polyu.edu.hk	Full-time Bachelor's degree & sub-degree programmes – non-local applicants applying on the basis of current year Joint Entrance Examination (JEE) results 全日制學士學位及非學位課程 — 非本地申請人 (內地應屆高考生)

Construction and Environment is published by the Faculty of Construction and Environment for students, staff, alumni and friends of the Faculty. The magazine contains information known as of June 2020. For an electronic version of the magazine, please visit www.polyu.edu.hk/fce/pb_fce_news.html. You may also choose to subscribe for it and other Faculty publications there.

《建設與環境》由香港理工大學建設及環境學院出版，派發予學生、教職員、校友及各界友好。本期通訊內容截至2020年6月為準。電子版本可於http://www.polyu.edu.hk/fce/pb_fce_news.html瀏覽。你亦可在該網頁選擇訂閱此院刊及一些其它學院刊物。

Editor-in-chief: Prof. Xiaoli Ding
Executive Editor: Nancy C.W. Lai
Advisory Editor: Ir Prof. You-lin Xu

Editorial Board:
Prof. Eddie Hui
Dept. of Building and Real Estate
Prof. Shiu-keung Tang
Dept. of Building Services Engineering
Prof. Siu-lai Chan
Dept. of Civil and Environmental Engineering
Prof. George Liu
Dept. of Land Surveying and Geo-Informatics

總編輯：丁曉利教授
執行編輯：黎志華女士
顧問編輯：徐幼麟教授工程師

編輯委員會：許智文教授
建築及房屋地產學系
鄧兆強教授
屋宇設備工程學系
陳紹禮教授
土木及環境工程學系
劉志趙教授
土地測量及地理資訊學系

We welcome your comments and articles.
Please send all correspondence to:

Faculty of Construction and Environment
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong

Tel: (852) 3400 3199
Fax: (852) 2362 2574
Email: clfce@polyu.edu.hk

歡迎投稿，所有稿件請交

香港九龍紅磡
香港理工大學建設及環境學院
《建設與環境》收

電話：(852) 3400 3199
傳真：(852) 2362 2574
電郵： clfce@polyu.edu.hk