LSGI Newsletter 2018

- Introduction P.1
- Update on Staffing P.1
- LSGI in the Media P.3
- Scholarly Activities P.7
- Visits and Delegations P.13
- Our Activities P.15
- Research Achievements P.17
- Awards P.19
- Graduate Sharing P.23
- Coming Event P.23

Information as of April 2018
The Department of Land Surveying and Geo-Informatics (LSGI) is proud to share its latest news with our colleagues, collaborating partners and the general public in the first Newsletter of 2018. The newsletter is prepared by LSGI’s Departmental Promotion Committee (DPC), and covers the latest staff developments, events, activities and academic and research achievements over the past year. Our aim is to promote good communication between LSGI and all interested parties.

About LSGI

LSGI is a leading academic organisation at the forefront of geomatics research and education, and has developed a solid foundation over the past 30 years. LSGI is unique in Hong Kong, and is the only institute offering an undergraduate programme in the disciplines of Land Surveying and Geo-Informatics. The department’s strategic research area is “Urban Informatics for the Smart Cities”, and focuses on scientific and technological research into the acquisition, modelling, analysis and management of spatial data with a wide range of applications. The department is recognised as a regional centre of excellence in geomatics research. According to its SCI citations per staff, it ranks as one of the top three geomatics institutions worldwide.

Update on Staffing

We are happy to announce that in 2017 five new Assistant Professors joined LSGI and three Distinguished Chair Professors were appointed. Prof. Guanhua Xu was also awarded an Honorary Doctorate in remote sensing, geographic information sciences and global change studies by the University in October 2017.

Distinguished Chair Professors

Prof. Michael GOODCHILD
University of California, Santa Barbara, USA
Research Interests: Geographic Information Science, Spatial Analysis and Uncertainty in Geographic Data

Prof. Mei-Po KWAN
University of Illinois at Urbana-Champaign, USA
Research Interests: Geographic Information Science, Human Mobility and Time-Geographic Analysis of Accessibility

Prof. Michael BATTY
University College London (UCL), UK
Research Interests: Mathematical Models, Database and Digital Technologies in Geographic Information Science, Urban and Regional Modelling and Science of Cities
New Assistant Professors 2017

Dr Yang XU
Research Interests:
Space-Time GIS,
Human Mobility Mining and Modelling, and Urban Data Analytics and Visualisation

Dr Wei YAO
Research Interests:
3D Remote Sensing, Image Processing and Analysis, and Pattern Recognition

Dr Robert TENZER
Research Interests:
Physical Geodesy, Geophysics and Climate Change

Dr Shuo WANG
Research Interests:
Uncertainty Quantification, Spatial Analysis and Earth, and Environmental Modelling

Dr Christopher Donald HIGGINS
Research Interests:
Sustainable Cities, Spatial and Econometric Methods, and Urban Policy and Planning

Doctor of Science honoris causa

Prof. Guanhua XU
Academician of the Chinese Academy of Sciences

On 21 October 2017, an honorary degree award ceremony was held as part of the 23rd Congregation of PolyU. Prof. Guanhua Xu was awarded the Doctor of Science honoris causa. Prof. Xu is a Chinese scientist prominent in the fields of remote sensing, geographic information sciences and global change studies, and has played a pivotal role in promoting innovation in science and technology. In 2003, he organised a team of leading scientists, economists and entrepreneurs to develop the National Outlines for Medium and Long-term Planning for Scientific and Technological Development (2006-2020). The document sets out a strategic direction for innovation in China that enables the economy to be transformed through technology. Prof. Xu is a driving force in multidisciplinary research and encourages researchers to address social issues such as global change and sustainable development. He has facilitated much collaboration between the Department of Land Surveying and Geo-Informatics (LSGI) and mainland scientists.
An interview involving nine local media organisations (including the Oriental Daily, Sing Tao Daily, Ming Pao, Apple Daily, Am730, Wen Wei Po, Ta Kung Pao, RTHK and UNWIRE) was conducted on 19 October 2017 to introduce the LSGI undergraduate programmes and laboratories (Underground Utility Survey Lab, Lab for Smart City and Spatial Big Data Analytics). Prof. John Shi, Dr. Lilian Pun, Ir. Dr. Wallace Lai and Dr. Matthew Pang joined the interview. Extensive coverage was ensured by informing over 15 other media organisations, including newspapers and online news channels.

LSGI Programme restructuring and introduction of laboratories

The media reported the course briefing and visited the laboratories of PolyU’s Department of Land Surveying and Geo-Informatics (LSGI) to receive demonstrations.

The restructuring of the undergraduate programme for Year One admissions in the coming academic year (2018/19) was reported. The launch of the new Laboratory for Smart City and Spatial Big Data Analytics (“Smart City Lab”) in early 2018 was also covered. Chair Professor and Head of LSGI Prof. John Shi said that LSGI aims to nurture talents in Smart Cities that can contribute to Hong Kong’s development. The newspaper Am730 reported that LSGI provides the only undergraduate programme in Hong Kong for training professionals in land surveying.

In addition to the Smart City Lab, we established the world’s first Underground Utilities Survey Laboratory (UUSL) in 2014, to facilitate underground utilities teaching and research. The media reported that LSGI is the only local institution to provide underground utilities survey training.

By increasing the intake quota of students LSGI can help address the currently insufficient number of land surveyors.
Wide coverages from local media (Nov 2017):

蘋果日報 Apple Daily (online)

1. 理大設智慧城市實驗室 分析熱島效應

Am730 (A24)

理大建3D空間數據庫 VR展示大廈室內路線
理大改組測繪地理課程 增「智慧城市」必修

星島日報 Sing Tao Daily (F02)
理大改組測繪地理課程 增「智慧城市」必修

教育新聞

理大改組測繪地理課程 增「智慧城市」必修
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理大改組測繪地理課程 增「智慧城市」必修

1/1 理大LSGI系主任及講座教授史文中表示，課程下學年改組後會側重部分選修科目，加入有智慧城市元素的新必修科。

東方日報 Oriental Daily (A04)
(1) 3D空間數據庫提升城市管理規劃
(2) 首設測量實驗室 為地下管線「把脈斷症」

On.cc
理大設數據分析實驗室 翼助港發展智慧城市

明報 Ming Pao (A22)
理大實驗室助建智慧城市 設全港三維空間數據庫年底運作

文匯報 Wen Wei Po (A25)
理大建實驗室 打造全港地理模型

大公報 Ta Kung Pao (A17)
理大設實驗室研智慧城市核心技術

Yahoo news
理大改組測繪地理課程 增「智慧城市」必修

UNWIRE
理大將設三合一課程培育智慧城市人才

香港電台新聞 RTHK
理大研發「透地雷達」可從路面探測有滲漏地下水管
Interview by Recruit Magazine
A telephone interview was conducted by Recruit Magazine with Ir Dr Wallace Lai on LSGI undergraduate programme and its demands and potentials on underground utilities survey in Hong Kong on 3 Nov 2017.
Recruit (10 Nov 2017) - 地下管線測量：地底醫生除病害 / 專業課程三合一

Other coverages including:
香港新聞網, MSN Hong Kong, KUI 看世界, 大公網, Oriental Daily WAP


The introduction of the BSc(Hons) in Land Surveying and Geo-Informatics (JS3387) was covered in the Sing Tao Daily JUPAS Guide Book 2018-19 (pages 43 and 45). LSGI’s BSc programme is the sole provider of land surveying talents to the industry and Government. Graduates can join the graduate surveying training scheme of the Hong Kong Institute of Surveyors (HKIS) to be licensed Land Surveyors; to be Geo-IT Specialists in logistics, intelligent transport systems, environmental consultancy and urban planning etc; or to be underground utility surveyors in firms of survey planning, construction, maintenance services of underground facilities and utilities.

LSGI’s new Laboratory for Smart City and Big Spatial Data Analytics was introduced as one of the new facilities of the university which provides 3D modelling for research in urban informatics with use of VR and AR and facilitate practical solutions for usage of big data.
LSGI Newsletter (May 2018)

Scholarly Activities

LSGI Distinguished Lecture Series

In 2017 it was our pleasure to invite 29 distinguished speakers to our Lecture Series. As of April, we are pleased to have invited 8 speakers in 2018.

Below are some of these renowned speakers:

Prof. Dongmei CHEN
Queen’s University, Canada

Prof. Weihua DONG
Beijing Normal University, China

Prof. Chris RIZOS
University of New South Wales, Australia

Dr David FORREST
University of Glasgow, UK

Prof. Georg GARTNER
Technical University of Vienna, Austria

Prof. C.K. SHUM
The Ohio State University, USA

Prof. Deren LI
Chinese Academy of Sciences and the Chinese Academy of Engineering

Prof. Fei LI
Vice-President of Wuhan University, China

Prof. Xiaohua TONG
Dean of College of Surveying and Geo-Informatics, Tongji University, China

Prof. Qingquan LI
President of Shenzhen University, China

Prof. Jordi J. MALLORQUI
Universitat Politècnica de Catalunya, Spain

Prof. Guanhua XU
Academician of the Chinese Academy of Sciences
Prof. Tao PEI  
Institute of Geographical Sciences of Natural Resources Research, Chinese Academy of Science

Dr. Shih-Lung SHAW  
University of Tennessee, USA

Prof. Shaowen WANG  
University of Illinois, Urbana-Champaign, USA

Prof. Houze XU  
Academician of the Chinese Academy of Sciences

Prof. Yuanxi YANG  
Xian Research Institute of Surveying and Mapping, and China National Administration of GNSS and Applications (CNAGA), China

Prof. Bisheng YANG  
Wuhan University, China

Prof. Kefei ZHANG  
SPACE Research Centre, RMIT University, Australia

Prof. Liangpei ZHANG  
State Key Laboratory of Information Engineering in Surveying Mapping and Remote Sensing (LIESMARS), Wuhan University, China

Prof. Mei-Po KWAN  
University of Illinois at Urbana-Champaign, USA

Prof. Michael GOODCHILD  
University of California, Santa Barbara, USA

Prof. Michael BATTY  
University College London (UCL), UK

Lectures by three Distinguished Chair Professors of LSGI:
International Conferences

In 2017, the department organised various international conferences and workshops that brought together international experts and scholars to exchange their latest research outcomes and initiatives.

LSGI Co-Hosted a Civil Engineering Workshop in Berlin, Germany (5-11 July, 2017)

From 5 to 11 July 2017, a group of 21 nondestructive testing (NDT) engineers from the US, Poland, Finland, Croatia, Ireland, Australia, Germany, Switzerland, Mainland China and Hong Kong attended a workshop in Berlin, Germany. This was the fifth workshop to be arranged since the first in 2013, and was organised by Dr Herbert Wiggenhauser, Head of the Department of Non-destructive Damage Assessment and Environmental Measurement Methods of the Federal Institute of Materials Research and Testing (BAM), Berlin, and co-organised by Ir Dr Wallace W.L. Lai of LSGI.

The workshop covered everything from the basics of NDT-CE technologies to advanced testing, evaluation and imaging techniques. The civil engineering technologies included classical NDT, concept of validation, principles and hands-on practice of impact echo, ground penetrating radar, ultrasonics, thermography, laser-induced spectroscopy, geophysical methods, pile testing, surface wave, electrochemistry of corrosion process, moisture measurement and data fusion. The workshop was highly rated by the participants, and the next one will take place in 2018.

From 13 to 16 August 2017, PolyU hosted an International Symposium on Planetary Remote Sensing and Mapping as part of its 80th anniversary celebrations. The Symposium was jointly organised by the International Society for Photogrammetry and Remote Sensing (ISPRS) and PolyU’s Department of Land Surveying and Geo-Informatics (LSGI), with the support of an organising committee chaired by Dr Bo Wu. It provides an interdisciplinary forum for leading international scientists and researchers to share their latest research and developments from the recent missions to explore the Moon, Mars and other planets by NASA, the European Space Agency (ESA), China, etc. The opening ceremony on 14 August included introductory speeches by Prof. John Shi, Head of LSGI, and Prof. Kaichang Di from the Chinese Academy of Sciences (CAS). The Dean of the Faculty of Construction and Environment (FCE), Prof. You-Lin Xu, then made a presentation to the five keynote speakers: Prof. Raymond Arvidson of Washington University in St. Louis, Prof. Nicolas Thomas of the University of Bern in Switzerland, Dr Randy Kirk of the US Geological Survey, Prof. Kaichang Di of CAS and Dr Carsten Guttler of the Max Planck Institute for Solar System Research in Germany. The three-day Symposium was attended by over 100 participants and was very well received, and included 10 sessions covering themes such as planetary photogrammetry, planetary remote sensing, GIS, cartography, planetary geology and planetary exploration missions.

“One Belt, One Road and Geomatics“ Symposium (OBORG) (2 Nov, 2017)

Twenty-one delegates from the Chinese National Administration of Surveying, Mapping and Geoinformation (國家測繪地理資訊局, NASG) visited LSGI from 31 October to 3 November 2017. A symposium titled “One Belt, One Road and Geomatics“ was jointly held by LSGI and NASG on 2 November 2017 at PolyU. Officiating at the symposium were Dr Pengpeng Fu (Liaison Office of the Central People’s Government in the HKSAR), Mr Wu Zhu (NASG team leader), Dr Haitian Lu (Associate Head and Associate Professor, A&F, PolyU), Dr Shaojun Zhang (Associate Professor, A&F, PolyU), Dr Conrad Tang (Chairman, Land Survey Division, HKIS), Dr Lilian Pun (Associate Head and Associate Professor of LSGI) and Ms Serein Han (MC and Scientific Officer of LSGI). Fruitful discussions also took place over the following days between the delegation and LSGI representatives, including Prof. John Shi, Department Head of LSGI, Dr Wei Yao, Dr Lei Zhang, Dr Xintao Liu, Dr Charles Wong and several LSGI PhD candidates from Belt and Road countries. Not only did the visit facilitate the participation and integration of surveyors from the Belt and Road, it also served as a basis for future exchanges and collaboration between Hong Kong and mainland China.

The symposium provided a platform to discuss the various opportunities and challenges brought by “One Belt and One Road“ to the field of surveying and mapping, including laws and regulations, dispute resolution, analysis of economic status and technological innovation in both Hong Kong and mainland China.
The 1st International Conference on Urban Informatics (ICUI) (13-15 November, 2017)

The Department of Land Surveying and Geo-Informatics (LSGI) organised the ICUI conference at the PolyU on 13-15 November 2017. The conference was aimed at providing a platform for leading scientists, young scholars and researchers from Hong Kong, the wider region and around the world, to share their knowledge and interest in Urban Informatics, and to contribute to the publication of an International Journal of Urban Informatics and a book. Ir Prof. Alexander Wai, our Vice President (Research Development), offered his welcoming remarks at the Conference Opening on 13 November 2017. It was our pleasure to invite Mr Paul Ng, Deputy Director/Survey and Mapping, Lands Department of the Government of HKSAR, to give an opening address. Prof. John Shi, Chair of the Organising Committee and Head of LSGI, introduced the conference’s distinguished keynote speakers. Around 100 participants attended the conference and nearly 40 speeches were presented in 8 sessions, covering subjects including Urban Sensing, Urban Planning, Geospatial Data Management, 3D GIS and Deep Learning, Uncertainty and Contexts In Urban Data Analytics, Health, Well-Being and Governance, and Transportation and Human Dynamics.


From 10 to 13 December 2017, the International Symposium on GNSS 2017 (ISGNSS 2017) was successfully held at PolyU. The ISGNSS is an Asia-Pacific annual conference that focuses on the technologies and applications of Global Navigation Satellite Systems (GNSS). Dr George Liu, Associate Professor of LSGI, served as the Chairman of the Local Organising Committee. Welcome speeches were delivered by Ir Prof. Ping-kong Alexander Wai, Vice President (Research Development) of PolyU, and Mr Paul Kwok-wai Ng, Deputy Director/Survey and Mapping of the Lands Department of the Hong Kong SAR. In addition, keynote speakers representing the Chinese BeiDou Navigation Satellite System (BDS) Programme Office and the US Global Positioning System Programme Office shared news of the latest progress of these two navigation systems. The Symposium covered a wide range of research topics through 12 oral sessions and a poster session, including GNSS algorithms and methods, geodesy surveying and mapping, GNSS augmentations and GNSS remote sensing. Over the 4-day period approximately 180 participants from Asia, Australia, Europe and North America attended the symposium, which provided an excellent platform for academia and industry to discuss and promote new ideas, innovations and the latest developments. It was also announced that the next ISGNSS 2018 conference would be held in Bali, Indonesia.
The development of Smart Cities led the LSGI at The Hong Kong Polytechnic University to set up the Laboratory for Smart City and Spatial Big Data Analytics (Smart City Lab). The laboratory is aimed at developing cutting-edge Smart City and spatial data analytics technologies, translating the developed technologies and providing Smart City solutions to Hong Kong and the Greater Bay Area.

On 20 March 2018, Prof. Timonthy W. Tong, President of PolyU officiated at the opening ceremony of the laboratory. The Under Secretary for Innovation and Technology of the HKSAR Government, Dr David Chung, was the guest-of-honour. Prof. John Shi, Director of the Smart City Lab and Head of the LSGI, shared the research directions and latest outcomes of the state-of-the-art lab.

Summit on the Future of Smart Cities (20 March, 2018)

To mark the opening of the Laboratory for Smart City and Spatial Big Data Analytics, a summit on the future of smart cities was held on the same day. Through its three sessions, the summit covered themes including Smart Government, Smart Living, Smart Environment and Smart Mobility.

Keynote speeches were delivered by three Distinguished Chair Professors of LSGI: Prof. Michael Goodchild, Prof. Michael Batty and Prof. Mei Po Kwan. Government representatives from the Development Bureau, the Lands Department, the Planning Department, the Hong Kong Observatory, the Civil Engineering and Development Department, the Transport Department and the Highways Department spoke about Smart City developments in their units and joined the panel discussions that followed each speech, which were moderated by Prof. John Shi.

Fruitful discussions and knowledge-sharing on the related disciplines took place, and the event was well received by the 200-plus participants, which included government officials, practitioners and researchers.
Visits and Delegations

Our colleagues visited a number of destinations in 2017, while we also welcomed delegates from around the world.

Overseas Visits

- LSGI visited the Survey Department of Brunei and the Brunei Institute of Geomatics (Jan 2017)
- Sustainable Service-Learning project in Tainan, Taiwan (summer 2017)
- Visit to Malaysia with FCE (Jun 2017)
- Study Tour to China University of Mining and Technology (Xuzhou) (Nov 2017)
- Education Fair/Overseas promotion activities to Beijing (Mar 2017), Malaysia (Kota Kinabalu) (Jul 2017), Beijing & Ulaanbaatar (Oct 2017), Taipei and Taichung (Oct 2017), Xiamen (Dec 2017) and Taipei (Feb 2017)

Delegations/Guests

- Prof. Kai-Wei CHIANG, Chairman of the Department of Geomatics at National Cheng Kung University (NCKU), Taiwan (Feb 2017)
- Management team from the University of Jaen in Spain and Prof. Brian LEUNG, Head of Department at Nazarbayev University (Mar 2017)
- Lands Department, The HKSAR Gov’t (Oct 2017)
- National Administration of Surveying, Mapping and Geoinformation of China (國家測繪地理資訊局, NASG) (31 Oct to 3 Nov 2017)
- Xian Research Institute of Surveying and Mapping, and China National Administration of GNSS and Applications (CNAGA) (Dec 2017)
- China University of Mining and Technology (Dec 2017)
- College of Geo-Exploration Science and Technology of Jilin University (Dec 2017)
- Muslim University of Indonesia (Feb 2018)
- Higher Education Commission, Pakistan (Mar 2018)
Senior Management of PolyU Visits LSGI

On 19 January 2018, the President of PolyU, Prof. Timothy W. Tong, the Deputy President and Provost, Prof. Philip Chan and the Dean of the Faculty of Construction and Environment (FCE), Prof. You-lin Xu, visited the LSGI. They met the Department Head, Prof. John Shi, and Associate Heads Prof. Zhi-lin Li and Dr Lilian Pun, for an update on the latest developments in LSGI. These included the challenges and opportunities the department is facing with the recent push to develop Hong Kong into a smart city. The senior management was able to meet with LSGI students, from undergraduates to postgraduates to PhD candidates, after their visit to the Laboratory for Smart City and Spatial Big Data Analytics. They also met LSGI academic and teaching staff before leaving. It was an excellent way for the University management to keep abreast of issues concerned by the LSGI staff and students.

PolyU Council Members Visit LSGI

On 16 March 2018, five members of the PolyU Council, Ir Dr James Lau, Ms Julia Lau, Ir Dr Humphrey Leung, Mr Stephen Liu and Mr Alex Wong, visited the Faculty of Construction and Environment (FCE) and LSGI to learn more about our research and programmes. Joining them were PolyU’s Executive Vice President Dr Miranda Lou and Vice President (Campus Development and Facilities) Mr Andy Tong. They were all welcomed by Prof. You-lin Xu, the Dean of FCE, who gave a detailed presentation to introduce the Faculty. The Dean spoke about its research impact and extensive knowledge transfer activities in several areas. Prof. Xiaoli Ding, Associate Dean (FCE) and Prof. John Shi, Head of LSGI, were also in attendance.

The visitors then toured some of FCE’s research facilities, including the LSGI Laboratory of Smart City and Spatial Big Data Analytics. It was a great opportunity to showcase some of our research achievements to the visitors, who noted the inclusion of our new programmes, namely the BSc (Hons) in Urban Informatics for Smart Cities, in the University’s 2019-22 Triennium Planning Exercise Proposal to the University Grants Council. They also noted the collaboration between LSGI and the HKSAR Government in the development of various smart city applications.
Since September 2017, school visits and talks have been conducted to promote LSGI’s programmes and raise public interest in Geo-Informatics.

In July and December 2017 we also organised two one-day workshops for secondary school students and over 20 talks in secondary schools. Topics include Smart City and Spatial Data Analysis, Underground Utilities, the Urban Heat Island, Satellite Images and applications and HK eTransport.

**Career Talk 2018 (26 Jan, 2018)**

A career talk, jointly organised with the LSGI Students’ Society, was held on 26 January 2018. Speakers included Sr Kenny Chan from the Hong Kong Institute of Surveyors (HKIS), Ms Iris Choi and Sr Raymond Choi from the Royal Institution of Chartered Surveyors (RICS), Ms Ellis Tong from Esri China (Hong Kong) Ltd. and Ms Pinky Lee from Castco Testing Centre Ltd. The speakers talked about their work experiences and career paths in LSGI, and provided interesting insights into the job possibilities for future LSGI graduates in fields such as land surveying, geo-information technology and underground utility surveying. Students also had the chance to learn about the different routes to membership of professional organisations.
Other Activities

PolyU JUPAS Information Day (30 Sep, 2017)
Autumn Party for Mainland Students (13 Oct, 2017)

Congregation 2017 (1 Nov, 2017)
LSGI Xmas Party (18 Dec, 2017)
PolyU’s 80th Anniversary Open Day (2-3 Dec, 2017)

PolyU’s International Counsellors’ Day (22-23 Mar, 2018)
PolyU’s 80th Anniversary Celebration Dinner (7 Dec, 2017)
Nauryz Holiday Party (22 Mar, 2018)
Research Achievements

PolyU Distinguished Knowledge Transfer Awards 2017

On 5 June 2017, LSGI academics were honoured with the PolyU Distinguished Knowledge Transfer Awards, which pay tribute to staff members of the University who have demonstrated excellence in transferring PolyU's expertise, and whose work has created significance and had a high impact. Jointly organised by the PolyU Technology and Consultancy Co. Ltd. (PTeC) and the Institute for Entrepreneurship, the award ceremony also celebrated PolyU's 80th Anniversary and PTeC's 20th Anniversary.

A Merit Award in the Community Excellence category was presented to Dr Lilian Pun, Associate Head of LSGI, for developing a multi-modal public transport query and guiding system that had an average of 26,000 daily users and 1.6 million mobile downloads in 2016. Ir Dr Geoffrey Shea was the other member of her team.

In the Research Excellence category, Prof. Xiaoli Ding, Associate Dean (Partnership), received a Merit Award for his work on satellite-based geohazard monitoring technologies, which was based on Global Navigation Satellite Systems and Interferometric Synthetic Aperture Radar. His team included Dr Lei Zhang, Mr Wentao Yang and Prof. Wu Chen.

Science and Technology Progress Award in Surveying and Mapping

Prof. Wen-zhong Shi, Chair Professor and Head of Department of Land Surveying and Geo-Informatics (LSGI), won the 2017 Grand Prize of the Science and Technology Progress Award in Surveying and Mapping. Prof. Shi was lead scientist on a project investigating key technologies for reliable national geographic surveys and dynamic monitoring.

Prof. Shi and his team have made significant contributions to the reliability theory and the technology of geographic data and analysis. These include a formed basis theory and methods on the reliability of geographic data, reliable change detection methods and technology based on satellite images and reliable geographic analysis methods.
Funding from MOST

The Ministry of Science and Technology (MOST) has approved funding of RMB 1.4 Million from its 2017 National Key Technologies R&D Programme for Prof. John Wenzhong Shi’s sub-project entitled “Geographical Big Data Mining and Spatiotemporal Pattern Discovering” for four years, which commenced in July 2017.

ITF Funding

Prof. Wu Chen was awarded $9,100,070 (including industry sponsorship of $1,677,970) for his project entitled “Seamless Navigation in Urban Environment through Multiple Sensor Fusion and GNSS Multipath Mitigation”, and $6,011,000 from the Public Sector Trial Scheme of ITF for another project entitled “Applications of DGNSS for Real-time Tracking System”.

HKJC Donation to Support Research on Risk Management of Urban Trees

A three-year project to monitor and detect the rotation and tilt angles of trees by means of Smart Sensing Technologies has been awarded HK$32.28 million from The Hong Kong Jockey Club Charities Trust. The aim is to facilitate technically defensible management decisions, enhance public safety, identify hazardous trees and enable their timely removal and the long-term preservation of trees that do not pose an imminent threat.

Led by Dr Charles Wong, the project team includes Prof. John Shi, Head of LSGI, Prof. Jin-Guang Teng, Director of the Research Institute for Sustainable Urban Development, Dr Ben Leu of the Department of Civil and Environmental Engineering (CEE), Dr Billy Hau of The University of Hong Kong, Prof. Yu-Hsing Wang of The Hong Kong University of Science and Technology and Friends of the Earth. Government Departments including the Greening, Landscape and Tree Management Section of the Development Bureau, the Highways Department, the Leisure and Cultural Services Department, the Architectural Services Department and the Energizing Kowloon East Office also support this project.

The RGC’s Germany/Hong Kong Joint Research Scheme 2017/18

Dr Wei Yao has been awarded funding of $71,500 from the Research Grants Council’s Germany/Hong Kong Joint Research Scheme 2017/18. The funding will support a two-year project entitled “Construction Site Monitoring Based on 3D Point Clouds Mapped by Different Platforms and Sensors” with Prof. Stilla Uwe of the Technical University of Munich.
Dr Bo Wu, Associate Professor was appointed associate editor of Photogrammetric Engineering & Remote Sensing (PE&RS) in May 2017. Since the 1930s the PE&RS has been the flagship publication of the American Society for Photogrammetry and Remote Sensing (ASPRS). The journal is renowned as one of the best in the field of imaging sciences, photogrammetry and remote sensing. According to the Thomson and Reuters JCR database, PE&RS has an Impact Factor of 1.851.

Dr George Zhizhao Liu was appointed to the editorial board of GPS Solutions, a leading Science Citation Index (SCI) journal in the field of Global Navigation Satellite Systems (GNSS), published by Springer-Verlag GmbH in Germany in Nov 2017. In 2017 GPS Solutions had one of the highest impact factors in the GNSS and related fields at 4.061, and covers issues related to GNSS system design and a range of current and emerging applications of GNSS such as GPS, GLONASS, Galileo, Chinese Beidou and various other augmentations. The journal can be found on the web page https://link.springer.com/journal/10291.

Awards

Student Awards

The Hong Kong Institute of Surveyors (HKIS) Scholarship 2017 awardees in the BSc programme are (1st prize) CHIK Li Lam, NG Wing Hong; and (2nd prize) LAU Chung Hei, YU Yip Sheung. The awardees in the HD programme are (1st prize) CHAN Tsz Kin, YU Samuel; and (2nd prize) CHEUK Yi Fai, HO Tsz Ning.

HKIS Dissertation Awards 2016:
Top Award (LS): CHAN Ho Tung

Second Award (LS): WONG Yik Chung
Outstanding Student Awards 2017: Mr Yi Nok Lee (LSGI).

Entry Scholarship Students Graduate with Distinction

Miss Trecia Kay-Ann Williams, an MSc postgraduate student in Geomatics (Surveying), received an Entry Scholarship in 2016/17 and has recently completed her MSc programme with Distinction. She is currently working as a surveyor in a private firm in her home country of Jamaica. Her goal is to become a licensed surveyor.

Dr Qiujie Chen, a PhD student under the supervision of Prof. Wu Chen, received the research fellowship in Geodesy from the Alexander von Humboldt Foundation in 2017.

Dr Biyan Chen, a newly graduated PhD alumnus supervised by Dr George Liu, has won the Hong Kong Meteorological Society’s prestigious “Zhu Kezhen” Prize.

Ms Zhe Yang, a PhD student under the supervision of Dr George Liu, was recently awarded the Silver Prize for a team project presentation at the International Reference Ionosphere (IRI) 2017 Workshop, held 13-17 November 2017 in Taiwan.

Two of our PhD students, Ms Zhe Yang and Ms Huan Luo, recently won the Best Student Paper Award and Best Student Poster Award, respectively, at the International Symposium on GNSS 2017 (ISGNSS 2017), held 10-13 December 2017 in Hong Kong.
Staff Awards

LSGI won the Merit Award of the PolyU Technology & Consultancy Company Limited (PTeC) for Maximum Staff Participation in Consultancy Activities. LSGI has received the award every year since 2014. This illustrates the continued efforts LSGI staff have devoted to consultancy activities over the years.

The research of Dr Charles Wong, Assistant Professor of LSGI, and Dr Vivien Lu, Associate Professor of BSE, entitled “The Potential of Solar Photovoltaic Energy in Hong Kong”, won the 2nd Runner-Up prize in the Most Favourite PolyU Research News 2017 campaign. The award was presented by Ir Prof. Alexander Wai, VPRD, on Feb 13, 2018 at the Hotel Icon.

LSGI staff members won the team award of HK$20,000 in the teaching category of the Faculty Awards for Outstanding Performance/Achievement 2016/17. The 11-member team was led by Dr Charles Wong of LSGI and included Prof. Xiaoli Ding, Associate Dean of FCE and Chair Professor of LSGI; Prof. John Shi, Head of LSGI; Prof. Esmond Mok, Dean of Students; Prof. Wu Chen, Professor of LSGI; Prof. Janet Nichol, Visiting Lecturer of LSGI; Dr Lilian Pun, Associate Head of LSGI; Ir Dr Wallace Lai, Assistant Professor of LSGI; Mr Roy Kam of the Educational Development Centre; Ms Ariel Mak, Project Associate of LSGI; and Ms Yao Han, Scientific Officer of LSGI.
Congratulations to all LSGI awardees on the receipt of their scholarships and awards!

Dr ZHU Xiaolin and Ms HAN Yao received the LSGI’s Awards for Excellent Performance/Achievement in Teaching 2016/17.

Dr Bo WU received the Dean’s Award for Outstanding Achievement in Research Funding 2017.

Programme Restructuring of LSGI

The Bachelor programme of LSGI will be restructured from the Bachelor of Science (Hons) in Geomatics to the Bachelor of Science (Hons) in Land Surveying and Geo-Informatics in the next academic year (2018/19 entry). The new course structure will combine the three disciplinary streams of land surveying, geo-information technology and underground utility surveying into one, with added subjects on smart cities, which will provide students with the knowledge to take advantage of more diverse job opportunities in this area. The nurturing of students in the programme will contribute to the development of Hong Kong as a smart city. The High Diploma course in Geomatics is also to be restructured into HD in Land Surveying and Geo-Informatics for the incoming cohort, to facilitate the transition of its graduates to the BSc programme.
A new and extensive open online course (MOOC) “Introduction to Urban Geo-Informatics” is now available at edX.org. Led by Dr Charles Wong, the six-week course exposes students to a combination of geographic information systems, remote sensing, global navigation satellite systems, location based systems, underground utilities survey and smart city applications. Urban geo-informatics involves the collection of information and the management of a database. By collecting raw data for interpretation, geo-spatial technologies help monitor the environment. Navigation applications can be generated through data processing to provide convenience for all, while sensing data tracks the paths of routes. With the help of navigation and positioning systems, information on the urban environment can facilitate a well-planned Smart City.

This course is FREE!
More details can be found at: https://www.edx.org/course/introduction-urban-geo-informatics-hkpolyux-lsgi1001x

LSGI provided me with a great platform for learning and exploring, and enabled me to put knowledge into practice and life. During my four years of university life, LSGI equipped me with multi-disciplinary knowledge, including land surveying, geographic information science and utility management, which have provided me with a different path after graduation. During my study I was given opportunities to work as an intern in government departments and private companies, where I could learn, experience and apply the knowledge I had gained. In addition to the internship, it was great that I was able to use my land surveying skills to aid earthquake relief in a service trip to Nepal, by creating a map for the affected village. This is what I found most satisfying professionally: using specific skills to help people and to make the world a better place.” Valedictory speech gave by Graduate Representative, Miss Lui Kit Ching.

A New Online Course - Introducing Urban Geo-Informatics

Our Programmes

MSc in Geomatics (GIS/Surveying)
BSc in Land Surveying and Geo-Informatics (JS3387)
HD in Land Surveying and Geo-Informatics (JS3105)

More information can be found at Study@PolyU