Dean's Roundup: August 2016 (part 3 of 3)

Roundup: *Ceiling function, the mathematical operation of rounding a number up to the next higher integer.*
Roundup: *a term in American English referring to the process of gathering animals into an area, known as a "Muster" in Australia.*
Rounding up: *when a helmsman cannot control a boat and it heads into the wind*
Roundup: *the plan for an invasion of northern France by Allied forces during World War II (WikipediA)*
*Dean's Roundup: part blog, part bulletin; part honour roll, part curatorial [***cu**ˈ**ra·toˈri·al** (kyo͝oˈrə-tôrˈē-əl, -tōrˈ-) *n. nounised by the Dean from curator + editorial]*

Dear All,

I'm not sure if I have shared this research idea in Dean's Roundup before, but it has come up again with the possibility of significant funding so here goes.

Together with a colleague from SWIMS, HKU's Swire Institute for Marine Science, earlier this year Christian Lange and I explored the idea of a joint architecture-Marine biology coral–reef restoration project using robotic fabrication. Subsequently, SWIMS won a HK AFCD authority grant for reef restoration around HK Island. AFCD has now come back with an interest in extending that project to embrace our inter-disciplinary proposal.

Our initial proposal was that we could scale up the SWIMS reef experiments from 3D printing to robots. I suggested a multi-stage technology:

1 Modular concrete blocks as the reef superstructure. These could be standard rectangular or pronged; or could be designed with fabric, form-following technology to better capture functional requirements and natural structure of reefs in these seas (using the formwork technology that Olivier explores in his current research)

2 Bespoke prostheses to fix onto the superstructures. These would be robotically made in concrete and designed to mimic live coral structures. These could be fixed to rectangular blocks to simplify manufacture.

3 Details surface and/or mini prostheses in concrete or ceramic to mimic the texture that becomes home to the coral polyps themselves.

4 'Paint-on' bio-active material to help polyp growth (I have a material science lab at Glasgow University interested)

The cream on the cake would be to get a pro-bono starchitect to be a co-designer of the world's first architect-planner-designed artificial coral reef 'city' and a team of world-renown urban planners to help optimise the structure in respect of water and nutrient flow and light in the 'coral city' (using transport/pedestrian/fluid dynamics flow models).

Faculty of science colleagues could then set up a live experiment to test nature versus

design of underwater polyp cities.

I think I have been in touch with most HKUrbanLab colleagues who I imagine might be interested. We are thinking of a funding proposal that hires three RAs (robotics CAD-CAM coder; robotics engineer for bespoke robotic arm for concrete or ceramics making, collaborating with HKU faculty of engineering; architectural-environmental performance analyst). If you think you may have an intellectual contribution to make to this project, you are invited to a scoping project meeting on Monday 22nd in the Faculty Office.

Congratulations to colleagues for the achievements listed in the remainder of this Roundup.

Chris

Teaching and other Achievements

FoA Departments and Divisions

Department of Architecture (DARCH)

1. Mr. K P Cheung

   - KP's fire safety recommendations on the Mini-storage area are reported in the article entitled "Did Hong Kong learn nothing from firefighter's death six years ago?" SCMP of 23 June 2016 :

     http://www.scmp.com/news/hong-kong/health-environment/article/1979701/ngau-tau-kok-blaze-raises-questions-about

2. Professor David Lung

   - Professor Lung's MOOC online course entitled "Vernacular Architecture of Asia: Tradition, Modernity and Cultural Sustainability" has been launched on 26 July. This 5-week course has strong connections to the UN sustainable development goals, which the University is keen to support. The whole set of trailer, sneak previews and course outline is available at the following link:

     http://tl.hku.hk/elearningblog/?pid=19714

3. Mr. Koon Wee

   - H. Koon Wee's SKEW Collaborative had just received a prestigious global award for the best new architecture for 2016. The Xishuidong Industrial Heritage Retail District in the city of Wuxi was awarded by the Chicago Athenaeum: Museum of Architecture and Design and the European Center for Architecture Art Design and Urban Studies. This annual program promotes international architecture and design to a public audience globally.

     Excerpts from the award letter and media:
     "This year, the Museum received a record number of projects for new buildings, landscape architecture, and urban planning from the most important firms practicing globally. Hundreds of submissions were received for this year's annual global awards program from architecture firms from 43 nations. A final shortlist of 370 projects was presented to a jury. The 2016 Jury for Awards was held in Milan during the 15th Venice Architecture Biennale and 130 projects were selected by a distinguished group of Italian architects, journalists, and educators.

     A full list of winning projects for 2016 is attached and can be viewed at our Museum's website at www.chi-athenaeum.org or at www.europeanarch.eu. On Friday, 2 September 2016, The Chicago Athenaeum, together with The

European Centre for Architecture Art Design and Urban Studies will open a special exhibition of all awarded buildings at our annual symposium, “The City and the World” in Istanbul, Turkey at the UCTEA Chamber of Architects of Turkey Istanbul Metropolitan Branch."

Department of Urban Planning and Design (DUPAD)

1. Miss Aileen Ka Yan Cheung (First Prize) and Miss Meiqing LI (Second Prize), BAUS 2016 graduates

    - Received the HKIS BA (Hons) in Urban Studies Scholarship in the Hong Kong Institute of Surveyors (HKIS) Scholarship Presentation Ceremony that was held on 14 July 2016.

2. Professor Anthony Yeh

    - Attended the *4th World Planning School Congress* held from 3 to 7 July 2016 at the Federal University of Rio de Janeiro, Brazil:

        1) Attended the GPEAN (Global Planning Education Association Network) Council Meeting as representative of APSA (Asian Planning Schools Association);

        2) Participated as panelist in the Round Table on Anticipating the Planning-Markets Nexus in China, 2020; and

3) Made a presentation on “Smart Technologies and Smart Cities - Opportunities and Constraints”.

Division of Architectural Conservation Programmes (DACP)

1. Dr. Hoyin Lee

   - Gave a special lecture entitled “A Century’s Journey of Architectural Aesthetics Development in the Context of Globalisation” to 96 summer visiting students from Fudan University and overseas universities (from the disciplines of Arts, Social Sciences, Law, Health Sciences and Engineering) as part of their credit-bearing HIST2125 and the non-credit-bearing GCSD2016 courses, organised by the HKU Global Affairs Office, on 18 July 2016.

   - Was invited to give a CPD lecture “From ‘Moderne’ to ‘Modern’: 20th-Century Architectural Heritage” for the Chartered Institute of Building (CIOB), held at the CityU SCOPE Admiralty Learning Centre on 12 August 2016. See https://www.facebook.com/media/set/?set=a.1441413879219115.1073741870.175207959173053&type=3. (Attended by about 60 CIOB members)

2. Dr. Hoyin Lee and Prof. Lynne DiStefano

   - Published a book chapter “Tong Lau: Hong Kong’s Anglo-Cantonese Shophouse Typology” in *Shophouse / Townhouse: Asian Perspectives*, edited by Wong Yunn Chii and Johannes Widodo (Singapore: Department of Architecture, School of Design & Environment, National University of Singapore, 2016), pp. 200-209. [227 pages; ISBN 978-981-09-1065-5]

     ***Abstract**: Tong Lau is a Cantonese term that applies to pre-WWII urban shophouses in Hong Kong that were derived from nineteenth century Southern Chinese urban shophouses. When exported to Hong Kong, the prototypal design underwent transformation and acquired characteristics specific to Hong Kong. Surprisingly, none of such usual suspects as climatic adaptation and material constraints played a key role in the shaping of the Tong Lau. Instead, the catalyst for the transformation process was none other than a deadly plague. This paper tells the story of the extraordinary historical events and circumstances that gave rise to the Tong Lau, a distinctive architecture with which Hong Kong has come to be identified.*

- *Published two articles in Context (UK's Journal of the Institute of Historic Building Conservation), No. 145 (July 2016) [ISSN 0958-2746]: "Chinese Renaissance Architecture in China and Hong Kong" and "The Hong Kong Shophouses."*

  ***Abstract** of* "Chinese Renaissance Architecture in China and Hong Kong": Chinese Renaissance Architecture represents the vision of China's first-generation Western-trained modern architects to create an architectural identity for the New China. Fuelled by the optimism and idealism of post-revolution Republican China, these architects launched the first modern architectural movement in China's history. While it was a bold attempt to modernize and rejuvenate Chinese architecture through an architectural language that combined the desire for Chinese aesthetic tradition and Western construction technology, the movement's nationalistic aesthetics became its Achilles heel, and rendered it unsustainable in a globalized modern world.

  ***Abstract** of* "The Hong Kong Shophouses": The development of the Hong Kong shophouse lasted some 110 years, from the 1840s to the 1950s. The demise of the shophouse typology was directly related to post-war population growth and its associated housing and commercial needs. Simply put, the traditional shophouse, in all its guises, became an obsolete form of real estate development. By the early 1960s, it was completely superseded by mixed-use composite buildings and ultimately high-rise buildings. Left behind is a legacy of distinctive buildings that continue to resonate with generations of Hongkongers.

Division of Landscape Architecture (DLA)

1. Dr. Cecilia Chu

   - Served as External Examiner for PhD examination for the Department of Cultural Studies, Lingnan University, July 2016.

Research Achievements

HKUrbanLab research groups

Architecture, Urbanism and the Humanities Research Initiatives (AUHI)

1. Dr. Cecilia L. Chu

   - Delivered a talk at the "Meet the Author" event at Asia Society Hong Kong Centre on August 3. The event marked the launch of a new book, entitled "Mall City: Hong Kong's Dreamworlds of Consumption" (Hong Kong University Press and Hawaii University Press, 2016), of which Dr. Chu is a contributor.

     Event description: Hong Kong is the 21st century paradigmatic capital of consumerism. Of all places, it has the densest and tallest concentration of malls, reaching tens of stories. Hong Kong's malls are also the most visited, sandwiched between subways and skyscrapers. These mall complexes have become cities in and of themselves, accommodating tens of thousands of people who live, work and play within a single structure. "Mall City" features Hong Kong as a unique rendering of an advanced consumer society. Retail space has come a long way since the 19th century covered passages of Paris, which once awed the bourgeoisie with glass roofs and gaslights. It has morphed from the arcade to the department store, and from the mall into the "mall city"- where "expresscalators" crisscross mesmerizing atriums. "Mall City" editor Stefan Al and contributors Cecilia Chu and Stan Lai will explore the effects of this development in Hong Kong as well as architecture, city planning, culture and urban life.

     http://asiasociety.org/hong-kong/events/mall-city-hong-kong's-dreamworlds-consumption

   - Published a book chapter, entitled "Narrating the Mall City", in a new edited volume, *Mall City: Hong Kong's Dreamworlds of Consumption,* July 2016.

   - Has been invited to serve as Chair for a panel entitled, "History and the Legitimacy of Historic Structures," at the Fifteenth Conference of the International Association for the Study of Traditional Environment (IASTE), co-

organized by UC Berkeley and Kuwait University, Kuwait City, Kuwait, December 17-20, 2016.

http://iaste.berkeley.edu/conferences/2016-conference/

- Presented a paper, entitled “Remaking City Futures: Urban Regeneration and Conservation as Worlding Practices,” at an international workshop, “Spaces in Transition: Globalisation, Transnationalism and Urban Change in the Asia-Pacific,” Melbourne School of Design, The University of Melbourne, 4-5 July, 2016. The workshop was linked to a postgraduate student plenary, entitled “Rethinking Modern Asia-Pacific Architectures” in which several HKU postgraduate students from the Department of Architecture participated.

2. Dr. Cole Roskam

- Dr. Roskam published an article entitled “Inventing the Rural” for *Architectural Design* [Special Issue edited by Joshua Bolchover and John Lin, “Designing the Rural”] 86, no. 4 (July/August 2016): 14-19.

***Abstract**: This essay illuminates the long-standing appeal of the rural within the history of modern architecture. It attends specifically to the central paradox at the heart of architecture’s various turns to the countryside over time; namely, the notion that architects can somehow maintain the physical and social integrity of the rural when they are themselves a fundamental vector of its changing character.*

Centre of Urban Studies and Urban Planning

1. Dr. Shenjing He

   - Co-organized a round table session entitled "Gated communities and neighbourhood governance" at the 2016 International Association for China Planning (IACP) annual conference and organized two paper sessions for a Special Issue entitled "Rural migrants in transitional China: Marginality, agency and social justice" to be published in Journal of Urban Affairs, Peking University, Beijing, China, 1-3 July 2016.

   - Presented a paper entitled "Housing provision restructuring and state-led financialisation in post-global recession China" at the IV World Planning School Congress (WPSC), Rio De Janeiro, Brazil, 3-8 July 2016.

2. Dr. Kyung-Min Nam

   - Dr. Nam completed his visiting scholarship at the Joint Program on the Policy and Science of Global Change, Massachusetts Institute of Technology, covering the period of 8 -15 July 2016.

3. Dr. Weifeng Li

   - Dr. Li organised a workshop on urbanisation, transportation and air quality at Shijiazhuang Railway University on 26 July 2016. He is guest-editing a special issue for Transportation Research Part D: Transport and Environment on Urbanisation, Transportation and Air Quality in Developing Countries.

   - Published the following paper:

     Wu, J., Yao, F., Li, W., & Si, M. (2016). "VIIRS-based remote sensing estimation of ground-level PM2.5 concentrations in Beijing–Tianjin–Hebei: A spatiotemporal statistical model". *Remote Sensing of Environment*, 184, pp.316-328. (Corresponding author).

     ***Abstract**: Satellite-based remote sensing data have been widely used in estimating ground-level $PM_{2.5}$ concentrations as it can provide spatially detailed information. Most modern satellite-based $PM_{2.5}$ estimates use statistical models that demand dense $PM_{2.5}$monitoring networks. As the national $PM_{2.5}$ monitoring networks in China were not finished until the end of 2012, the research related to $PM_{2.5}$ is relatively unsubstantial. To further improve the accuracy and application of remote sensing based estimation models for $PM_{2.5}$ and take advantage of the newly established networks, we employed a time fixed effects regression model and geographically weighted regression model to develop a spatiotemporal statistical model that estimated ground-level $PM_{2.5}$ concentrations in Beijing–Tianjin–Hebei. The time fixed effects regression model used the aerosol optical depth (AOD) data from the VIIRS (Visible Infrared Imaging Radiometer Suite) instrument as the major predictive variable along with several other dependent variables, including some factors uncommonly discussed in previous literature, i.e., the satellite-derived NO_2concentrations of the previous day (NO_2_Lag) and four directional wind*

vectors, and estimated day-by-day ground-level $PM_{2.5}$ surfaces. The geographically weighted regression model used the residuals from the time fixed effects regression model as the dependent variable and the AOD value as the independent variable. Through adding the estimated residuals back to previous surfaces, we obtained the final prediction maps of ground-level $PM_{2.5}$ concentrations in Beijing–Tianjin–Hebei with a spatial resolution of 6 km × 6 km. The results were as follows. i). The spatiotemporal statistical model performed satisfactorily in that it successfully captured both the temporal and spatial variations in the $PM_{2.5}$–AOD relationships. The coefficient of determination (R^2), mean prediction error (MPE), and root-mean-square error (RMSE) were 0.88301, 8.1331 μg/m^3, and 13.0574 μg/m^3, respectively, during model fitting and 0.71889, 12.2712 μg/m^3, and 19.2927 μg/m^3, respectively, during model validation. ii). Incorporating the NO_2_Lag in the time fixed effects regression model significantly improved the model's performance and it played a positive role in ground-level $PM_{2.5}$concentrations. Replacing the simple wind speed with four directional wind vectors was helpful for the model's performance. iii). Meteorological factors and land use characteristics significantly affected the $PM_{2.5}$–AOD relationships. The temperature and surface relative humidity (SRH) played a positive role, whereas the rainfall, planet boundary layer height (PBLH), average relative humidity in the PBLH (RH_PBLH), four directional wind vectors, and normalized difference vegetation index (NDVI) played a negative role. iv). The prediction maps revealed that fine particle pollution in Beijing–Tianjin–Hebei is severe and the pollution pattern presents relatively strong seasonal heterogeneity and southeast–northwest spatial heterogeneity.

4. Professor Anthony Yeh

- Ms. Xiaoyan Mu, PhD student of Prof. Anthony Yeh, received the *2016 IACP Best Student Paper Award* for the paper entitled "Intercity Migration Pattern and Urban Hierarchy of China Based on Social Media Data" presented at the *10th International Association for China Planning (IACP) Conference* that was held at Peking University, Beijing, China, from 1-3 July 2016.

  Prof. Anthony Yeh was invited to the *10th International Association for China Planning (IACP) Conference* that was held at Peking University from 1-3 July 2016. He made a presentation on “Urban Development, Planning and Planning Education in Asia” in the the *4th International Dean/Chair's Forum on Urban and Rural Planning* that was held on 1 July 2016 in Peking University, Beijing, China.

Heathy HD Cities

1. Dr. Chinmoy Sarkar

- presented a paper entitled “Built environment predictors of general health, happiness and depression in adults: Results from the UK Biobank Urban Morphometric Platform” at The International Alzheimer’s Disease Conference, organized by Alzheimer's Disease Research Network, Research Centre of Heart, Brain, Hormone and Healthy Aging, Strategic Research Theme Ageing, Li Ka Shing Faculty of Medicine, The University of Hong Kong, 18 June 2016.

  Abstract: The built environment (BE) has emerged as one of the 'first causes' of mental health, capable of explaining its socio-spatial variation. The paper reports the UK Biobank Urban Morphometric Platform (UKBUMP), the first ever high resolution spatial database of more than 750 individual-level urban morphological metrics (morphometrics), being developed for half-a-million participants of the UK Biobank (UKB) Prospective study spatially distributed across 22 major cities. Spatial modelling of the BE was conducted employing state-of-the-art spatial and network analyses upon multiple national-level spatial datasets to construct objective health promoting/ inhibiting morphometrics and linked to UK Biobank participant’s dwelling locations. It describes statistical models being developed to assess the independent associations ofthe attributes of built environment upon a series of indices of mental health generated for adults in a sub-sample of N=340,000 individuals from the UKB cohort (from 14 major cities). Large scale objective assessment of the BE enables development of BE-health modelling studies that have the potential to identify causal pathways from specific attributes of the BE to various genetically complex chronic health outcomes as well as well-being. The results demonstrate the efficacy of UKBUMP in explaining the socio-spatial variation of mental health in a large cohort.

2. Mr. K P Cheung

- KP’s jointly authored paper where he is the lead author, is awarded first prize [18 papers are awarded 1st prize, among 530 papers]: “A discussion on five schemes for supplying water to automatic fire sprinklers and landing valves in tall buildings upon failure of operation of all electrical fire pumps” [written in Chinese, English Abstract added and enclosed], submitted to the coming October 2016 Chinese National Fire Safety Conference in Beijing :

  http://www.cfpa.cn/manage/html/201605/720.html

3. Professor Steve Rowlinson

- Attended and delivered a paper entitled "A review of safety climate and risk-taking propensity in occupational health, safety and well-being in the construction industry"(with Dr. Yu Zhong Shen(PDF) and Dr. Tas Yong Koh(Adjunct Associate Professor), at the 5th World Construction Symposium 2016: Greening Environment, Eco Innovations & Entrepreneurship, Colombo, Sri Lanka, 29 – 31 July 2016.

4. Dean Webster

- Had a paper accepted subject to minor revisions in the American Journal of Epidemiology (Impact Factor 5.2):

  Fone D, White J, Greene G, Farewell D, Dunstan F, Webster C, Rodgers S, Lyons R, Humphreys I, John A and Phillips C. Improving Mental Health through the Regeneration of Deprived Neighborhoods: A Natural Experiment. American Journal of Epidemiology, Accepted stmc August 2016.

  Abstract:

  Objectives. We carried out a natural experiment to examine the impact of a neighborhood regeneration project on mental health in deprived communities.

  Methods. We linked data on neighborhoods to a prospective cohort study established in 2001 (before the regeneration program) with follow-up in 2008 (after regeneration) in Caerphilly County Borough, Wales, United Kingdom. We used data on regeneration activities in 47 intervention areas (n=4,197 subjects) and compared to 63 control areas (n=6,695 subjects). We assessed the difference in self-reported changes in mental health score between intervention and control areas with the Mental Health Inventory (MHI-5) scale. Propensity score matching was used to balance confounding factors between intervention and control.

  Results. Regeneration was associated with a small improvement in the mental health of residents in intervention areas compared to control (b = 1.54, 95% confidence interval [CI] = 0.50, 2.59), suggesting a reduction in socioeconomic inequalities in mental health. There was a dose response relationship between length of residence in regeneration neighborhoods and improvement in mental health (*P*-for-trend = 0.05).

iLab

1. Dr. Wilson Lu

- Secured a grant from China Affairs Offices (CAO) to visit universities in Beijing:

  (i) Served as the referee panel for the 9th Innovation Competition in Construction Engineering and Management, held by the Department of Construction Management, Tsinghua University, and Gammon Construction Company on Jun. 29, 2016.

  (ii) Visited the North China University of Technology to discuss research collaboration on BIM, prefabrication construction, and big data for construction machinery management.

(iii) Attended the 2016 Global Leadership Forum for Construction Engineering and Management, hosted by Department of Construction Management, Tsinghua University 3 - 5 July 2016, Beijing, China.

- Attended the 16th International Conference on Computing in Civil and Building Engineering (ICCCBE2016) on 6 – 8 July 2016, at Osaka International Convention Center, Osaka, Japan.

- Ms. Yuhan Niu presented the conference paper "**Niu. Y.H**., **Lu, W.S**., **Liu D.D**., and Chen **K**. (2016). SCO-enabled Process Reengineering of Construction Logistics and Supply Chain Management." in *Proceedings of the 16th International Conference on Computing in Civil and Building Engineering, Osaka, Japan,6-8 July 2016.*

- Published a paper "**Niu, Y.H., Lu, W.S., Liu, D., Chen, K.**, Anumba, C., and Huang, G. Q. (2016). An SCO-enabled logistics and supply chain management system in construction. *ASCE Journal of Construction Engineering and Management*, forthcoming".

  Abstract: *Logistic and supply chain management (LSCM) is of paramount importance to a construction project but is often problematic. Many researchers see LSCM per se as a web of decisions to be made, and attribute problems to a lack of process and information concurrence. This is exacerbated by fragmentation, discontinuity, and heterogeneity in construction LSCM. The bi-directional information flow remains unachieved in the existing sensing-based systems for construction LSCM. Without panoramically interconnected to other smart abilities such as the automatic action-taking ability, most existing sensing-based systems are insufficient to realize their full potentials in facilitating construction LSCM. Building on previous studies on smart construction objects (SCOs), this paper aims to develop an SCO-enabled system that can enhance concurrence of process and information, with a view to informing better decision-making in construction LSCM. It does so by first analyzing the problems in prevailing LSCM practices using business process reengineering. Based on this analysis, the architecture for an SCO-enabled LSCM system is proposed and developed into a prototype. Then the system is calibrated and validated in the rich context of offshore prefabrication housing production in Hong Kong. It is found that SCOs, with their properties of awareness, communicativeness, and autonomy built into a smart management system, can supplement the existing LSCM process with more concurrent decision-making information. This paper contributes to the body of knowledge in two areas. It adds to the theoretical debate on decision-making by arguing the importance of information and process concurrence and trying to explicate it in the context of construction LSCM. In addition, the SCO-enabled LSCM system can be implemented in real-life practice to alleviate the many problems existing in construction LSCM.*

- Publish a paper "**Lu, W.S.**, Peng, Y., **Chen, X**., Skitmore, M., and Zhang, X.L. (2016). The S-curve for forecasting waste generation in construction projects. *Waste Management*, forthcoming".

  Abstract: *Forecasting construction waste generation is the yardstick of any effort by policy-makers, researchers, practitioners and the like to manage construction and demolition (C&D) waste. This paper develops and tests an S-*

curve model to indicate accumulative waste generation as a project progresses. Using 37,148 disposal records generated from 138 building projects in Hong Kong in four consecutive years from Jan 2011 to June 2015, a wide range of potential S-curve models are examined, and as a result, the formula that best fits the historical data set is found. The S-curve model is then further linked to project characteristics using artificial neural networks (ANNs) so that it can be used to forecast waste generation in future construction projects. It was found that, amongst the S-curve models, cumulative logistic distribution is the best formula to fit the historical data. Meanwhile, contract sum, location, public-private nature, and duration can be used to forecast construction waste generation. The study provides contractors with not only an S-curve model to forecast overall waste generation before a project commences, but also with a detailed baseline to benchmark and manage waste during the course of construction. The major contribution of this paper is to the body of knowledge in the field of construction waste generation forecasting. By examining it with an S-curve model, the study elevates construction waste management to a level equivalent to project cost management where the model has already been readily accepted as a standard tool.

- Published a paper "Wang, H.D, **Lu, W.S., Ye, M., Chau, K.W.,** and Zhang, X.L. (2016). The curvilinear relationship between corporate social performance and corporate financial performance: evidence from the international construction industry. *Journal of Cleaner Production*, forthcoming."

  Abstract: *The intellectual debate concerning the nexus between corporate social performance (CSP) and corporate financial performance (CFP) is incessant. In recent years, the debate has explored more dynamic links, one of which is the curvilinear relationship between the two constructs. It argues that the relationship between CSP and CFP can be better captured by a U-Shape: at a low level of CSP, companies are not able to cultivate social activities to achieve tangible financial benefits but, after passing an inflection point, CSP will gradually turn into financial benefits that can offset the costs involved. This research empirically tests the curvilinear relationship between CSP and CFP in the context of the international construction industry. Using a panel data set of 30 international construction companies and 210 firm-year observations over the sample period from 2007 to 2013, the curvilinear relationship of CSP on return on assets and earnings per share, as specific CFP measures, is strongly supported. This empirical finding demonstrates an opportunity for executives of international construction companies to capitalize on their social responsibility efforts and create a win-win situation between CSP and CFP.*

2. Professor Steve Rowlinson

   - Served his role as a PhD Thesis examination committee member for: An investigation of the influence of project organizational culture on construction project performance: A study on Vietnam (Candidate: Nguyen Luong Hai, Core-Supervisor: Prof. Tsunemi Watanabe) at Kochi University of Technology(KUT), Japan

   - Presented two lectures entitled "Cost escalation and construction industries: a comparative study"; and "Risk appreciation and risk propensity in construction

management" to years 1 & 2 BSc and MSc in Frontier Engineering Course at School of Economics & Management at KUT.

- Participated in critiques for four Doctoral students at the Construction Management Lab at KUT

- Served his role as a session chair for "Occupational Safety and Health Management in Built Environment" at the 5th World Construction Symposium 2016: Greening Environment, Eco Innovations & Entrepreneurship, Colombo, Sri Lanka, 29 – 31 July 2016

Sustainable HD Cities

1. The University-Government-Industry (UGI) Consortium for Sustainable Urban Development

   - The UGI Consortium is established in July 2016 to provide a unique platform for the development and implementation of technologies and systems for smart/sustainable cities through collaborations among the three sectors of universities, government departments and the industry. The HKUrbanLab, as one of the representatives from the universities sector, has joined the Consortium as a founding member. For more details, please refer to the following link:

     http://www.polyu.edu.hk/risud/ugic/