

Dean's Roundup: August 2016 (part 1 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)

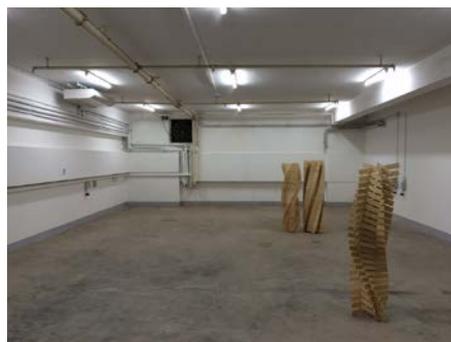
Dean's Roundup: part blog, part bulletin; part honour roll, part curatorial [**cu**'**ra**-**to**'**ri**-**al**] (ky^{oo}r^ə-t^{oh}'^{ee}-əl, -t^{oh}'-) n. nounised by the Dean from curator + editorial]

Dear All,

This Dean's Roundup restarts regular publication after the somewhat intermittent communications so far this year. I apologise where news of your achievements has been delayed as a result. As well as more than usual travelling for me, 2016 in the Faculty Office has been unusually busy with bureaucratic work such as the Faculty Review, which was finally put to bed this week, with a report containing FoA response to the review recommendations, submitted to the University for Senate and Council. A huge thank you again to our hardworking administrators for organizing this, the RGC visit and other special projects delivered in the first half of the year.

I also note that there is a lot more diverse academic activities in FoA, both to occupy all of our time and to report. This is evidence from the inside that HKUrbanLab is taking off. There is a big backlog of achievements to report and I shall distribute this over the next few Deans Roundups.

I would like to continue the tradition of highlighting selected activities in each Roundup. This week: a few words about the new Robotics facility in our CENTRE FOR FABRICATION AND MATERIAL TECHNOLOGIES.



The robotics lab is our first phase of occupation on the Ground Floor of Knowles. It's a bit like Dr. Who's *Tardis*: you enter by the small door at the top of the up-ramp to the GF Senior Management Team parking bay and you enter a surprisingly large space (pictured).

Until mid September, you will just have to *imagine* the futuristic kit that should occupy the middle of the space – arrival of the twin robots has been delayed. However, you can currently see some fascinating structures created by students on an experimental summer robotics workshop run by Christian and Donn and implemented with the temporary trial robots we've had in advance of the real thing and located on Knowles Building 4th floor. The structures in the picture were created by mixed groups of MSc and BSc students. Based on the workshop experiences, here's an example of how I personally think we can creatively introduce this new genre of learning and making into the undergraduate curriculum of architecture and landscape:

The towers, designed by students in a virtual environment, comprise short lengths of wood, each with a single pair of precisely angled notches on one side. The notches are unique to each length of wood and fit together like *dougong* wood brackets supporting the roof of wooden Chinese temple. This summer's workshop was an experiment in teaching structure and form. The experience tells us that we can successfully use this for third-year undergraduates to learn introductory to intermediate principles of structure, emergent structure-form relationship, materials, tower design and design-program economics. Students might be asked to experiment, as in the picture, with the forms that emerge from adjusting the articulation of multiple individual components. Next, they could be asked to adjust their forms to accommodate a core to their tower (some of the towers currently on display would require a curvilinear core that would require the time-travelling *Tardis* to realize). So- emergent form-finding with a core-constraint. This fits with ongoing adjustments in DoA curricula and studio designs to pay more attention to constraints in design. Not in order to *limit* creativity but to increase it. What is creative about designing without constraints? Anything that brings order to art is a constraint, be it the constraints of the medium, the canvas, or the degree of realism required to make the artist's statement with accuracy, artfulness and power.

Architecture is, by nature, a constrained art form. Its constraints include the laws of physics (structures) and chemistry (materials) and the laws governing the human use of space and other scarce resources (economics). Within these, and over these, the laws of beauty can be stretched.

Having designed a beautiful and stable tower that can house a structural and functional core, our third year students could be asked to convert their digital model into a BIM model and expose it to virtual wind, structure and environmental performance modeling. They might also be asked to compete with each other to design the strongest tower, with strength measured by a simple analogue physics instrument (what lateral force is required to topple the free-standing tower?). Add to this some volumetric performance measures, taken from the BIM models, used as surrogates for economic value (for example, percentage of internal volume with direct contact with an exterior wall – approximating windowed area), and you have a studio in which third year students get to feel and experiment at a very granular and tactile scale, most of the fundamental dimensions of architecture.

And all from our first experimental workshop. As well as exciting new teaching approaches, we expect the robotics lab to take our architectural research in new direction; for example we're talking to a big construction company about research into fabric formwork for curvilinear concrete structures using robotic arms. Thanks to Christian, Donn, Eric, Olivier and Yan Gao for taking this work forward.

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

Chris

Staff Movements

1. Mr. Thomas Tsang, was promoted to Associate Professor with tenure in the Department of Architecture, with effect from 1 June 2016.
2. Dr. Dong Wang, has joined the Department of Urban Planning Design as a URC-funded post-doctoral fellow for a period of 3 years with effect from 15 June 2016 to work with Professor Shenjing He and Dean Webster on small property rights housing (SPRH) in Mainland China (joint CUSUP-RCCPRR project, linking to other SPRH research led by Professor Chau).

FoA Departments and Divisions

Department of Architecture (DARCH)

1. Mr. Thomas Tsang
 - Awarded an Interdisciplinary Knowledge Exchange (KE) Project Fund on his co-project titled "Sounding Architecture" with the co-project coordinator, Dr. Jose Vicente Neglia from the Faculty of Arts.

Department of Real Estate and Construction (DREC)

1. Dr. F F Ng
 - Awarded an Interdisciplinary Knowledge Exchange (KE) Project Fund on his co-project titled "Keep Alive Beacons on the Sea – Decoding Historic Lighthouses in Hong Kong and Nearby Ports" with the co-project coordinator, Dr. Peter Cunich from the Faculty of Arts.

Department of Urban Planning and Design (DUPAD)

1. The Department celebrated its 35th anniversary on 27 - 28 May 2016, with the following activities:

27 May 2016:

Symposium on Housing Trends and Demands in Ageing Hong Kong and mainland China

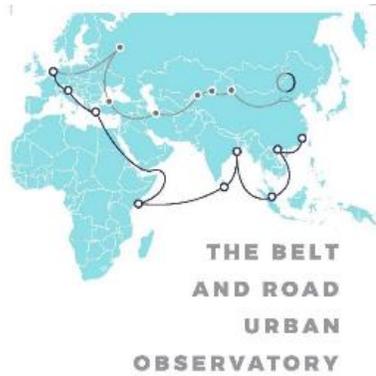
Organizer: Centre of Urban Studies and Urban Planning, The University of Hong Kong
Co-organizers: Institute of Real Estate Research (IRER), Shanghai University of Finance & Economics, and Hong Kong Institute of Planners

Themes: The ageing trends have been of increasing concern in Europe and Japan, and recently also in other Asian countries, as well as in Hong Kong. The ageing trends have given rise to new housing demands and needs. This symposium addressed questions related to ageing community in the context of Hong Kong and Mainland China. It also presented findings and recommendations of a study involving a questionnaire survey of 5,000 people covering the 18 districts of Hong Kong, 16 focus group meetings and interviews with leaders of elderly-related organizations, and an extensive literature review of international practices.



28 May 2016:

Launching of the Belt and Road Urban Observatory



Website: <http://fac.arch.hku.hk/upad/cusup/belt-and-road-urban-observatory/>



Public Lectures

The 'Housing Supply Crisis', Major Sites and Affordability in England

Professor Nick Gallent

Head of the Bartlett School of Planning, University College London



Abstract: *England, and London in particular, is in the midst of a housing crisis. The drivers of this crisis are manifold but most commentaries view low levels of housebuilding as its fundamental cause. More people need housing and not enough is being built to satisfy growing demand. But the growth in housing demand is not underpinned solely by the need for homes; rather, it is a result of the unbounded nature of demand (from overseas investors) and a broader commoditisation and financialisation of housing, which has elevated it to the status of prime investment asset and turned it into a key driver of economic growth. Investment and weak supply are jointly culpable for the situation in London and the rest of England. Relative to the commoditisation of housing and the disruptive patterns of consumption and investment it brings, dealing with supply seems to be a relatively straightforward task. Yet a number of large strategic housing sites around England have been developed only very slowly and with great difficulty. After reflecting on the context summarised here, this presentation will focus on recent experience of bringing forward major development sites in England, drawing attention to some of the challenges faced and possible remedies. It ends by outlining the scale of the housing supply dilemma in the context of broader investment and consumption pressures.*

Urban Planning in Bangladesh: Approaches and Outcomes

Professor A K M Abul Kalam

Department of Urban and Regional Planning, Jahangirnagar University



Abstract: *Urban planning in Bangladesh does not ensure a unified process with predetermined approaches and expected outcomes. For practicing physical planning in a unified way at all urban government levels, there is yet no substantive national urban policy and law approved by the national government. The planning process is fragmented and the responsibilities for planning lie with different agencies under various Ministries. The city corporations and municipalities can, however, prepare and implement their physical plans (e.g. Master Plan, Structure Plan, Land Use Plan, Action Area Plan) based on their individual Act and a national building rule. Thus there are potential weaknesses in the approaches of plan preparation and implementation that result in poor outcomes in terms of achieving objectives and targets. The major cities, like Dhaka and Chittagong are also no exceptions and suffer from lack of planning and development control. Most of the secondary and tertiary cities spread all over the country have yet no approved physical plans, but recently, draft Master Plans for a large number of municipalities have been completed. For improving the situation in urban planning, the Government of Bangladesh (GoB) need to come forward with more effective urban policy and law to improve capacity of the national planning institutions and the urban local governments in the preparation and implementation of urban physical plans. The public lecture will cover these aspects in more details and provide scenario in outcomes on the current planning practices.*

Celebration Lunch

Held on 28 May 2016 in Watermark Seafood Bar and Grill in Central Pier 7, Central.



2. MUD graduate winning HKIS Dissertation Awards

Ms. Farzana Siddiqua, a graduate from the Master of Urban Design Programme Class of 2015, received the Distinguished Dissertation Award from the Hong Kong Institute of Surveyors (HKIS). Her dissertation title is "Measuring the impact of outdoor comfort on walkability in warm humid cities: a perspective from new and historical streetscape in residential areas of Dhaka, Bangladesh" (supervised by Mr. Guy Perry, Visiting Associate Professor of DUPAD). Farzana is among the two recipients of the award across Hong Kong (the another being a PhD student from City University of Hong Kong)



Ms. Farzana Siddiqua collected the trophy in person during the Awards Presentation Ceremony held on May 30, 2016.

3. DUPAD student teams received four awards out of a total of eight in the Design Ideas Competition under the “Urban Design Study for the Wan Chai North and North Point Harbourfront Areas”.
 - 2nd Runner-up Award: Rebecca LI, Cyrus CHOW, Jacqueline HO, and Melissa KWAN (all MUP-2 students)
 - 2nd Runner-up Award: CHEN Jinliu and TANG Jingqiu (MUD)
 - Merit Award: Keith WU (MUP-1), Amanda YU (MUP-2), Gigi LO (MUP-1), and Jethro FUNG (BAUS-3)
 - Merit Award: Jonathan KWOK, Jessie KWOK, NG Fook Yee, LI Wing Ching, ZHENG Siyu, LIN Wenyi and CHIONG Hoi Yan (all BAUS-3 students)

The Design Competition is organised by the Planning Department and AECOM, with the aim to find creative ideas and innovations from the young professionals, to develop the Wan Chai North and North Point Harbourfront (<http://www.wcnpuds.hk/web/DesignComp/index.php?lang=en>). Prize presentation ceremony was held on 11 June 2016 (Saturday) in the City Gallery at Central, Hong Kong.



4. MUD Career Workshop

The MUD programme team (Prof. Anthony Yeh, Dr. Jianxiang Huang and Ms. Sylvie Nguyen) organized the 2016 Career Workshop on May 28, 2016. The workshop was attended by MUD staff, current students, recent graduates, and design firm leaders. The schedule consists of talks on preparation of design portfolio, interview skills, and job prospect in urban design related fields. Students interacted with Mr. Peter Morley of Hassel, Mr. Chris Romanos of Arup, and Mr. Zidong Chen of Woodsbagot, Asia. Recent MUD graduates, Vincent Chung (MUD'14, P&T), Tea Chen (MUD'14, SOM) and Wilbur Long (MUD'15, LEAD-8), shared valuable experiences on job search and career development.



Mr. Chris Romanos of Arups



Prof. Anthony Yeh briefing students and guests

5. Mr. Wang Xu (PhD Candidate)

- Congratulations to Mr Wang Xu as the awardee of the Fulbright Scholarships (2016-17). Xu is a Year 2 PhD candidate and a HKPF holder and is the faculty's first research postgraduate to receive this awards. Xu will spend 10 months at the Harvard Law School as a visiting Fulbright scholar. Wang Xu's research topic is on "rural migrants workers in Chinese cities." His research supervisor is Dr Roger Chan. The Fulbright Program is a program of competitive, merit-based grants for international educational exchange for students, scholars, teachers, professionals, scientists and artists. It aims to promote global interaction and understanding. It is one of the most prestigious programs for international educational exchange.

6. BAUS year 3 students, led by Dr. Kyung-Min Nam, visited the Hong Kong Planning Department (PlanD) on May 20, 2016. The students observed a town planning board meeting, together with former PlanD deputy director Ms. Ophelia Wong, and attended a lecture, delivered by senior town planner Dr. Tak Wah Ng.



Division of Architectural Conservation Programmes (DACP)

1. Ms. Katie Cummer, Director of BA(Conservation), Division of ACP
 - Ms. Katie Cummer, received the Faculty Outstanding Teaching Award at the “Award Presentation Ceremony for Excellence in Teaching, Research and Knowledge Exchange 2015,” held at Rayson Huang Theatre, on 9 May 2016.



2. Dr. Hoyin Lee, Head of Division of ACP
 - gave a public lecture entitled “Chinese Renaissance Architecture: History, Politics and Aesthetics” (「中華復興建築背後的歷史，政治與美學」, in Cantonese) at the Hong Kong Heritage Discovery Centre as part of the 2016 International Museum Day activities. The lecture was by invitation of the HKSAR Antiquities and Monuments Office, and attended by about 150 people, on 14 May 2016.

See: http://www.amo.gov.hk/en/education_april_2016_special.php.



- was appointed by the Board of the Urban Renewal Authority as a Co-opted Member of the Planning, Development and Conservation Committee on a two-year term. Among the members of this committee are the Hong Kong Government's Director of Lands, Director of Planning and the Assistant Director for New Buildings at the Buildings Department, in May 2016.

See: <http://www.ura.org.hk/en/about-ura/corporate-governance/board-and-committees/committees/planning-committee.aspx>.

- was invited by the HKSAR Education Bureau to give a lecture entitled "The Historical Development of Hong Kong's Healthcare Facilities from an Architectural Heritage Perspective" (「從歷史建築看香港公共衛生設施的發展」, in Cantonese) under the lecture series *Senior Secondary knowledge cum Learning and Teaching Strategies Series for the Liberal Studies Curriculum*, held at the City Gallery, on 20 May 2016.

See: <http://www.citygallery.gov.hk/en/to-participate/past-activities.html#>. (Attended by about 40 secondary school teachers of liberal studies)

Division of Landscape Architecture (DLA)

1. Chung Wai-Kin, Gap (MLA Graduate)

- has received the “Full-Brain Innovator” (highest award), at the Design NextGen Awards 2016 organised by the Hong Kong Designers Association, for his MLA Thesis project on “Unplanned Urban Greening”

See Graphic Arts Association of Hong Kong magazine and their website, (issue no.389) for <http://ebook.gaahk.org.hk/>

- Mathew Pryor was also awarded Best Design Educator, 2016 in this competition, as the supervisor for this thesis study.



- Gap has also won the following awards recently, for the same study:

(i) 3rd place - FuturArc Prize 2016: Student Category

<http://www.futurarc.com/index.cfm/competitions/2016-fap-student-3rd-prize-winner1/>



(ii) Silver Award - 13th Annual Asia Design Awards 2015 (第 13 屆亞洲設計學年獎) Landscape Architecture: Best Original Design Awards (風景園林最佳創意獎)

http://a424420597.oinsite.yh.mynet.cn/_d277115427.htm

(iii) Winner - Earthasia Softscape Accentuation scholarship program, 2016

2. Ms. Vincci Mak

- Awarded an Interdisciplinary Knowledge Exchange (KE) Project Fund on her co-project titled “Everyday Space and Memory at Wah Fu Estate: Recording and Envisioning the Daily Life of Public Estate Residents in Hong Kong” with the co-project coordinator, Dr. Denise Tang from the Faculty of Social Sciences.

3. Mathew Pryor

- Mathew has had his long-running research on transplanting mature trees published in Arboricultural Journal. The study is based on four detailed case studies of tree transplanting operations conducted in Hong Kong and an examination of the extent to which the arboricultural factors may have contributed to the outcome of each operation.

Pryor, M.R. and Watson, G.W. (2016). Mature Tree Transplanting: Science Supports Best Management Practice. *Arboricultural Journal*. 38(1) 2-27. DOI: 10.1080/03071375.2016.1157401.

HKUrbanLab research groups

The Faculty has received results of RGC's GRF, ECS, and HSSPFS (2016/17 Exercise). We have been awarded 2 ECS and 6 GRF (see table). In addition, another GRF grant comes with new DoA Associate Professor Minjung Maing, bringing RGC grants to 9 this year, sustaining the dramatic upturn in performance started three years ago. Many congratulations. More than this, a record number of applications scored 3.5 (fundable but not funded). With colleagues' permission, I shall report these in a subsequent Roundup to show the breadth of activity.

Faculty of Architecture – ECS and GRF					
17618216	Architecture	Dr. C. Roskam	Hong Kong: Uncertain(c)ity	555,760	36
17646216	Architecture	Mr. M.R. Pryor	Analytical study on the potential of urban roof farming in high density cities	595,188	24
17239016	Real Estate and Construction	Professor K.W. Chau	The impact of China's exchange rate and fiscal reform on property prices	545,344	33
17250116	Real Estate and Construction	Dr. R.T.F. Leiringer	The role and impact of Building Environment Assessment Methods in achieving green building	482,605	36
17511516	Real Estate and Construction	Dr. H.T. Choy	Measuring lemons under information asymmetry: Empirical studies in Hong Kong's housing market by hedonic price and repeat sales models.	580,500	24
17628816	Urban Planning and Design	Dr. C.L. Chu	Shaping a New Moral Topography: Emergent Roles of Landscape Design in the Planning of Chinese Cities, 1914-1937	746,894	30
27609816	Architecture	Dr. B. Jiang	Using driving simulation technology to measure impacts of freeway green landscapes on drivers' mental fatigue, stress, and negative mood	888,300	24
27604016	Urban Planning and Design	Dr. X. Liu	Polycentric urban development and carbon dioxide emission in China	560,000	24

Congratulations to Bin, Xinjian, Cole, Matthew, Chau, Roine, Lennon, Cecilia and Minjung.

Centre of Urban Studies and Urban Planning (CUSUP)

1. Dr. Kyung-Min Nam

- was invited as a panelist to the Business Environment Council EnviroSeries Conference, held in JW Marriott Hong Kong on May 19, 2016. At the conference, Dr. Nam gave a presentation on “pollution abatement as carbon mitigation strategy: China’s case” and joined a panel discussion on “business strategies and approaches in a transition Hong Kong to a future-proof low carbon city.”



2. Dr. Weifeng Li and Mr. Jianzheng Liu (PhD Candidate)

- published their big data paper in ISPRS Journal of Photogrammetry and Remote Sensing has made the **top 6 most downloaded paper** in the past 90 days among all ISPRS papers and was tweeted by @BigDataTweetBot, a popular twitter account with 13.2 thousand followers. (See the twitter link: <http://twitter.com/BigDataTweetBot/statuses/700658814975090689>):

Liu, J., Li, J., Li, W., & Wu, J. (2015). Rethinking big data: A review on the data quality and usage issues. *Isprs Journal of Photogrammetry and Remote Sensing*, 115, 134-142. doi:[10.1016/j.isprsjprs.2015.11.006](https://doi.org/10.1016/j.isprsjprs.2015.11.006)

Received 18 May 2015, Received in revised form 17 November 2015, Accepted 17 November 2015, and Available online 29 December 2015:<http://www.journals.elsevier.com/isprs-journal-of-photogrammetry-and-remote-sensing/most-downloaded-articles>

Abstract: *The recent explosive publications of big data studies have well documented the rise of big data and its ongoing prevalence. Different types of “big data” have emerged and have greatly enriched spatial information sciences and related fields in terms of breadth and granularity. Studies that were difficult to conduct in the past time due to data availability can now be carried out. However, big data brings lots of “big errors” in data quality and data usage, which cannot be used as a substitute for sound research design and solid theories. We indicated and summarized the problems faced by current big data studies with regard to data collection, processing and analysis: inauthentic data collection, information incompleteness and noise of big data, unrepresentativeness, consistency and reliability, and ethical issues. Cases of empirical studies are provided as evidences*

for each problem. We propose that big data research should closely follow good scientific practice to provide reliable and scientific “stories”, as well as explore and develop techniques and methods to mitigate or rectify those ‘big-errors’ brought by big data.

3. Professor Rebecca Chiu

- Gave a presentation entitled “Housing Challenges in Hong Kong’s Dualistic Housing System” at the International Symposium on Land Policy and Housing Market in the Plenary Session “Land and Housing Challenges in Mainland China and Hong Kong” on 16 May 2016.
- Invited by the Royal Institute of Surveyors to chair a plenary session on Planning & Built Environment of the RICS Hong Kong Annual Conference 2016 - Unlocking the Silver Hair Market - Our Future is Now, held on 20 May 2016.
- Delivered two presentations respectively on “Housing Trends, Aspiration and Satisfaction in Ageing Hong Kong”, and “Independent Living: Is Purpose-design Elderly Housing the Panacea?” at the Symposium on Housing Trends and Demands in Ageing Hong Kong and Mainland China, jointly organized by the Centre of Urban Studies and Urban Planning, Institute of Real Estate Research (IRER), Shanghai University of Finance & Economics and The Hong Kong Institute of Planners, Hong Kong, 27 May 2016.

4. International Symposium on Land Policy and Housing Market

- The International Symposium on Land Policy and Housing Market, co-organized by the Strategic Research Themes on Contemporary China, Faculty of Social Sciences; the Strategic Research Themes on China Business and Economics, Faculty of Business and Economics; Centre of Urban Studies and Urban Planning, Lincoln Institute of Land Policy; and Peking University-Lincoln Institute Center for Urban Development and Land Policy, was successfully held on 16 May 2016. Director of Planning, Planning Department gave the opening remark, Professor Edward Glaeser, Professor David Ley and Dr. Bertrand Renaud gave keynote presentations, followed by presentations on housing issues in regions of China and Hong Kong, Western Countries, and East Asia. The symposium was well attended by audience of scholars, professionals and the public, and will generate a book volume and policy paper to the Central Government of China.



iLab

1. Dr. Wilson Lu

- Guided a group formed by 21 undergraduates from BSc Surveying to Guangzhou to attend BIM training. The 3-day training commenced on 16th May was provided by our strategic partner, RIB. It is based on the iTWO, a software platform to link the physical and virtual sides of building. Students were firstly divided into 4 teams with different construction management (CM) roles appointed, such as the ones to undertake BIM modelling, Quantity Surveying, Estimating, Scheduling and Controlling. A teaching session was held to familiarize the students with the platform. Technical skills in using the iTWO were conveyed. Then, a competition was held between the teams. They were required to assemble a LEGO building with the instructions provided within the limited time. Afterwards, the complete workflow of CM based on the iTWO platform was applied on the LEGO project. Finally, each team have to present their learning outcomes of the 3-day training. This training is a wonderful experience to students. RIB said highly of our students about their intelligence, learning skills, self-organisation, and delightfulness. “They are extremely faster learners, a lot better than many current industry experienced experts”, said the senior director of RIB.



- Published a research article “**Lu, W.S., Niu, Y.H., Liu, D.D., Chen K. and Ye, M. (2016). i-Core: Towards a customizable smart construction system for Hong Kong. *Innovation in Construction*, v. 1, p. 71-79, ISSN 2312-8291**”

Abstract: *Construction leaders in Hong Kong continually endeavor to find innovative solutions to meet the increasingly higher demands of today’s construction industry, including building better, faster, cheaper, safer, greener, and ultimately, more productive. Leading construction companies and research institutes are calling for smart construction, which can be perceived as an overarching term incorporating smart technologies and systems such as automation, robotics, Building Information Modelling (BIM), Virtual Design and Construction (VDC), Internet of Things (IoTs), and Industry 4.0, with a view to improving construction productivity. By extending previous research on smart construction objects (SCOs), the aim of this study is to develop i-Core, a standalone, programmable, and extendable integrated chip, with a customizable smart construction system that can be readily implemented in Hong Kong to allow for better, faster, cheaper, safer, cleaner, and, ultimately, more productive*

construction. Equipped with i-Core, these 'dead' construction resources are now capable of sensing, computing, communicating, and taking actions without necessarily involving humans in the loop. An i-Core prototype with the customizable smart system has been developed and piloted in a construction project and is now being customized and scaled up to other construction projects in Hong Kong. i-Core can be further applied to, inter alia, critical scenarios such as safety management, construction procedure guiding, and facilities management. i-Core gives a 'heart' to construction; it is the 'CPU' of smart construction. Properly harnessed, i-Core can enable a safer, greener, smarter, more efficient, and more productive construction industry that has never been seen before.

- Guided a research group of REC's PhD/MPhil students and a post-doctoral fellow, including Ms. Yuhan Niu, Mr. Diandian Liu, Mr Leo Chen, Dr Linzi Zheng, Ms. Xi Chen, and Ms. Meng Ye to join the academic exchange event "BIM and Big Data: Academic Exchange Tour" to Kunming, China, from 25 to 28, April 2016. The exchange event constituted of two major activities hosted by Faculty of Civil Engineering and Mechanics, Kunming University of Science and Technology (KUST), including:
 - delivered an open speech about "BIM and Big Data" in the workshop with members of Yunnan BIM Union at the KUST (attended by members from 5 universities and over 10 local/national corporations); and
 - delivered a keynote speech "BIM and Big data: toward a smarter, safer and more efficient construction industry" to Faculty of Civil Engineering and Mechanics, KUST (attended by about over 100 postgraduate students and 300 undergraduate students).



2. Dr. Wilson Lu, Ms. Yuhuan Niu, Mr. Diandian Liu, Mr. Chen Ke and Ms. Ye Meng

- were invited by the Hong Kong Construction Industry Council (CIC), as the awardees of Young Innovator (Academia), to join the Technical Seminar on CIC Innovation Award – 2015 Award Showcase on 20 May 2016, Zero Carbon Building, Kowloon Bay, Hong Kong. Ms. Yuhuan Niu, on behalf of the team, gave a talk “i-Core: Giving Construction a ‘Heart’” and joined the panel discussion session in the seminar.



3. Professor Steve Rowlinson

- Published an edited book entitled “New Forms of Procurement: PPP and Relational Contracting in the 21st Century” (Routledge, May 2016) with Dr Marcus Jefferies from University of Newcastle, Australia.



The last three decades have seen the evolution of Public-Private Partnerships (PPPs) and Relationship Contracting (RC) as alternative procurement approaches to traditional methods of delivering public infrastructure. The potential for growth in these new forms of procurement has led to an on-going debate on the nature of requirements, particularly in terms of policy development, encouraging private investment and value for money. A key argument for governments to procure projects using PPPs and RC is that the process delivers better value for all the

stakeholders, including the community and asset end-users. This wide-ranging study of such crucial procurement issues includes international historical context, collaboration and risk management, with a focus on sustainable procurement approaches. The international significance of PPPs and RC procurement is reinforced with case study examples from the UK, Europe, North America, South Africa and Asia-Pacific. It features cutting-edge research from around the world on subjects such as:

- Reviews and reflection of the PPP approach
- project alliancing
- implementation of RC in developing countries
- changes in procurement policy
- value for money, collaboration and stakeholder involvement
- growth and emergence of PPPs in Asia
- risk management.

Including contributions from some of the world's most prominent academics and practitioners in this field, this volume is a crucial guide to the strategic choices governments now face in the provision of infrastructure, between using 'public' or 'private' mechanisms, or a combination of the two.

4. Professor Anita Liu and Dr. Isabelle Chan

- have the following paper accepted by the Journal of Management in Engineering, ASCE.

Liu, A.M.M. and Chan, I.Y.S. (2016) The critical role of learning transfer climate in fostering innovation in construction, *Journal of Management in Engineering*, ASCE, in press.

Abstract: *As learning is a key antecedent to innovative activities, more attention needs to be paid to the climate, within the organisation or project settings, that supports learning. The objectives of this paper are (1) to empirically examine the influences of the learning transfer climate on innovation and (2) to investigate how the between-group variability in the learning transfer climates of clients, contractors, and consultants affects innovation. The learning transfer climates are assessed in terms of the task-support and the motivational elements adopted from the well-tested questionnaire of the Learning Transfer System Inventory. Based on the 147 survey returns collected from construction participants, factor analysis, correlation analysis and regression analysis are conducted (the latter two using the total sample and the subsamples of client developers, contractors, and consultants). It is found from the total sample that openness to change (task-support element), performance-outcome expectations and performance self-efficacy (motivational elements) are significant predictors of innovation. While a successful construction project requires the interaction of multiple waves of innovation, contributed by various construction participants throughout the project, it is important to acknowledge the heterogeneity of these participants in considering the innovation process. The results also indicate that, with regard to their innovations, the*

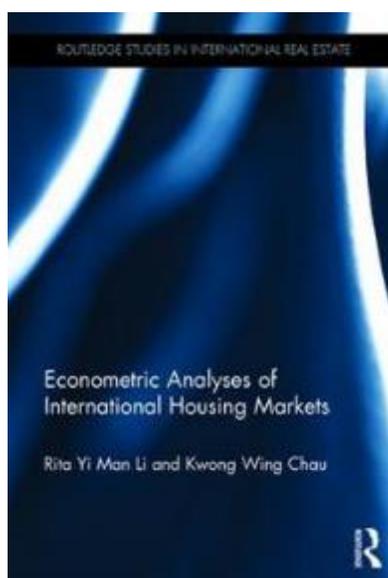
different groups are influenced by different learning transfer climate factors: clients are affected by openness to change and performance self-efficacy; contractors are affected by openness to change; and consultants are affected by performance-outcome expectations. Analysis of these findings leads to a conceptual model of learning transfer climate and interactions between the clients, contractors and consultants.

From the theoretical perspective, the findings of this study lay ground for an inter-organisational framework for further innovation-learning transfer studies. From the managerial perspective, this study provides empirical confirmation of the importance of measuring the learning transfer climate in construction organisations and of developing strategies for facilitating an innovation-conducive climate that fits each particular organisation.

Ronald Coase Centre for Property Rights Research

1. Professor K W Chau

- Published a book entitled “Econometric Analyses of International Housing Markets” (Routledge, May 2016) with Dr Rita Yi Man Li from Hong Kong Shue Yan University.



This book explores how econometric modelling can be used to provide valuable insight into international housing markets. Initially describing the role of econometrics modelling in real estate market research and how it has developed in recent years, the book goes on to compare and contrast the impact of various macroeconomic factors on developed and developing housing markets. Explaining the similarities and differences in the impact of financial crises on housing markets around the world, the author's econometric analysis of housing markets across the world provides a broad and nuanced perspective on the impact of both international financial markets and local macro economy on housing markets. With discussion of countries such as China, Germany, UK, US and South Africa, the lessons learned will be of interest to scholars of Real Estate economics around the world.

Sustainable^{HD}Cities

1. Dr. Jianxiang Huang

- gave a presentation entitled: “Assessing Human Comfort in High Density Cities” at the Health Urban Sustainability Conference on May 17, 2016. The conference, held at the Harvard Shanghai Center, was jointly organized by Harvard T.H. Chan School of Public Health. Harvard Graduate School of Design. The conference was attended by decision-makers in China’s local governments, university research centers, and private development community; the goal is to frame urban expansion as an opportunity for well-designed, spatially integrated development with sustainable urban infrastructure at its core.



Dr. Jianxiang Huang gave a presentation at the conference