

Innovation for Urbanisation Challenge

PROSPECTUS

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1. Background

To have a shelter is the most primitive need of human beings. After satisfying the basic practical needs, we demand more on appearance and environmental protection.

The continuous growth of construction industry has push forward the development of Smart Architecture, which is the solutions to man's demand for the comfort, convection, convenience, and conservation of energy.

Therefore, the development history of architecture is relevant to the evolution of man's conception of ideal residence. By pursuing practicality, beauty, reforestation, intellectualisation, architectures slowly became what it now is. To further investigate how construction space could enhance stability and easiness of men's mind, how exterior and interior space could work together, and how to achieve conversations between men and architecture, we propose the concept of "WELL Plus", to actuate architectural terminal intelligence.

Smart Building with Internet of Things technologies enables buildings to connect to the cloud and integrate real-time building data with historical data records and knowledge, also create a connection between managers, operators and users. By reconstructing eco-system of building facilities with innovations on building services and operations, IoT empowers building management to have greater performance.

IoT offers a new way to embrace WELL Plus, it not only brings convenience to household living, but also a brand new environment in scenarios of infrastructure and industrial architectural designs, mental comfort and reduced burden of eco system.

A sustainable development of smart facilities is guaranteed, thanks to the effective confusion of IoT and smart facilities system.

2. General Introduction

Organised by B4B Limited with main sponsors - Ronald Lu & Partners and Paul Y. Engineering, **Innovation for Urbanisation (I4U) Challenge** aims to explore the application of intelligent technology on architectural design and on putting “WELL Plus” into practice, which provides a platform for start-ups and students to practically apply intelligent technologies, for example IoT, to seek improvements on existing architectures.

In the I4U CHALLENGE, contestants will be provided with an architecture scenario in Hysan Place, and be requested for a proposal on improving the sustainability of the scenario. Shortlisted finalists will get benefits from Sponsors' support to improve their design proposal, which will be exhibited in DesignInspire by HKTDC. The most valuable proposal will have the opportunity to be put to practice in Sponsor's project, and the team will be invited to join the project.

3. Competition Theme

Innovation for Urbanisation

Urban Symbiosis

How to take advantage of the symbiotic opportunities of the Internet of Things (IoT) and physical interfaces (urban horizontal ground spaces, vertical building facades, urban installations, etc.) of a compact urbanscape? Can IoT and the physical interfaces of a compact urbanscape develop mutualistic interactions that are mutually beneficial, more integrated, interactive and adaptive for our city? How the physical interfaces of a compact urbanscape be designed to contain embedded digital technologies to sense, communicate, secure, understand and act in response to the dynamics of our city?

This challenge aims to encourage cross-disciplinary innovations to promote sustainability, digital-generation-readiness and urban wellness through urban symbiosis between IoT and our physical urban built environment.

Pain points

In most cases, ground spaces and building facades of our physical urban built environment are conceived and designed for single or limited functional purposes. Some urban spaces may be designed as certain public amenities that may not be adaptive to the dynamic environmental, social or economic needs of a community.

Some building facades may be designed merely for environmental control to serve inhabitants behind the facades.

With the development of intensified digital connectivity, technological innovations and integration made possible by IoT, urban installations and buildings should be designed to entangle with digital innovations to take best advantage of the dynamic interactions and engagement between city and buildings, buildings and inhabitants, inhabitants and urban dwellers to create new digitally-augmented urban experiences and to help tackle forthcoming climate change impacts, resource depletion, urban wellness and other urban challenges.

Pioneering examples

Coupling IoT with Artificial Intelligence, deep learning and imaging and other recent advances in digital technologies, urban spaces and architectural facades are acquiring abilities to sense, respond and interact with people and activities in the city.

There are pioneering examples of urban installations and building facades that help sense the heat stress of the urban environment and alleviate heat island effect, or respond to pollution level to clean the air, or provide operable shade over urban spaces and regenerate energy, or help sense and analyze people movement and patterns to provide on-demand space-conditioning.

4. Timeline

Application & inquiries	2019/10/02-20
Deadline of application	2019/10/20
Urbanackathon	2019/10/26
Announcement of top 15 invited teams	2019/10/28
Screening Interview	2019/11/02
Announcement of top 8 shortlisted finalists	2019/11/04
Mentoring Day	2019/11/09
Deadline for completion of project	2019/12/04
Exhibition in DesignInspire by HKTDC	2019/12/05-07
Final Assessment and Award Ceremony	2019/12/06

5. Competition Process

Representatives from sponsors will introduce the scenario, pain points and expectations for the competition, explain the concept of “WELL Plus”, and mentor the participating teams in Urbanackathon. Teams should submit a draft of proposal at the end of the event.

The Organiser will screen the proposal drafts submitted and invite outstanding teams to an interview to select top 8 shortlisted finalists. Invited teams for the First Interview will be announced on November 2, 2019 in official website, and invited teams will be individually informed about the arrangements for the interview.

Mentors will be assigned to shortlisted finalists for a 3-week mentoring programme to improve the proposal. Shortlisted finalists will publicly exhibit the final proposals with 3D models and design summary in DesignInspire by HKTDC.

Final proposals will be presented to a judge panel in Final Assessment, commending awarded outstanding innovators.

6. Eligibility

- Working adults OR students aged 18 or above
- Applicants are encouraged to apply as a team (Company stream or Individual stream), with 2-5 members.
- It is suggested to include members from IoT development, architectural, engineering, and design field.
- Applicants can also apply as individual and be assigned a group by the Organiser.

7. Awards

The Champion:

- HKD 10,000;
- Certificate and Trophy;
- Opportunity to sign a service contract up to HKD 500k, putting the design proposal into practice.

Shortlisted Finalists:

- An honorarium of HKD 3,000;
- A subsidy for 3D model of HKD 2,000;
- Design model can be displayed in DesignInspire by HKTDC;
- Design proposals will be included in the artwork gallery of Sponsors

8. Application Method

Apply through the following link, the application deadline is on October 20, 2019

<https://www.b4bchallenge.com/i4u>

The Organiser will send a confirmation email which includes further details of this challenge and your team code within 3 days after receiving your application.

About us

Main Sponsor:

Ronald Lu & Partners

Ronald Lu & Partners (RLP) is a design-led architecture studio, headquartered in Hong Kong with offices in Beijing, Shanghai, Shenzhen and Guangzhou, led by father and son duo Dr Ronald and Bryant Lu. Established in 1976, the studio's work spans across mixed-use developments, residential, transport, commercial, education, cultural, civic & community, healthcare sectors and interior design services. RLP is an industry leader in sustainable design and with a core mission to create a better, more sustainable future. RLP has worked with over 1000 clients, and is a trusted advisor to both private and public sectors, also collaborated with world-renowned international studios to deliver some of the most ambitious large-scale schemes.

Paul Y. Engineering

Paul Y. Engineering (PYE) provides a single and comprehensive source of construction solutions backed by local knowledge and expertise. Our diverse portfolio encompasses the entire range of civil engineering and building services that enable our clients to fulfill their goals. Our services include engineering, development and management solutions; concept and planning; land sourcing; asset appreciation; design; construction; fitting out; E&M; commissioning; marketing and facilities management.

Sponsor:

ENEURON

Based on IoT Technology, ENEURON provides data and professional services for management of facilities and equipment. ENEURON has many successful projects in China and Southeast Asia.

Integrating smart sensing technology, low power wireless communication technology and other technologies, with the help of a cloud platform and AI algorithm, we strive to promote the transformation of traditional buildings management through data-driven improvements. Our vision is – Make Global Buildings Smart and Proactive.

Organiser:

B4B Limited

B4B Limited aims to promote the development of a healthy and sustainable ecosystem for Big Data and intelligent technologies innovation in Hong Kong and to match talents and enterprises through organising competitions, intensive accelerator programs, and other programs.

Operator:**GELAB**

GELAB assists makers to realize their dreams by conducting market research, product design enhancement, business planning, R&D, raising funds, distribution and seeking for strategic partners. Behind all this is the desire in raising the possibility in materializing of innovation industry and stimulate the cultural exchange of innovative gadgets.

Intellectual Property

1. All the art pieces must be originally designed by the participants. Participants will be eliminated by the Organiser once infringement of copyrights of others was discovered. Also, participants shall be legally responsible for violating intellectual properties right. Damage to the Organisers shall be compensated by participants concerned.
2. Participants owns the copyright of artwork created during the competition. Nonetheless, participants are deemed to allow the use of copy, edit, publish, remake, public showcase or others means (include but not limited to its design, prototype, picture, draft, products, drawing, video and other formats, a.k.a. "right to use") by the Organiser without any prior consent from the participants nor payments.
3. If the participants advance to the final round as shortlisted team, the copyright of the artworks created by participants shall be owned by the participant and be also authorized the sponsors (Ronald Lu & Partners, Paul Y Engineering and etc.) the rights to, include but not limited to, display, amend, co-develop, distribute. Collaboration agreement over any commercial interests shall be discussed and signed on needed manner after the participant enters into the final round.
4. The Organiser shall own the copyrights of the photos and videos recorded (include but not limited to participants and its artworks) during the event for promotional purposes without gaining agreement from the participants. Organiser s can edit and amend the photos and videos abovementioned. Participants know and agree the Organiser to use their names.

Terms and Conditions

1. The Organiser owns the right to adjust the amount of the participants and teams in the final round.
2. Application materials submitted shall not be returned. Participants shall keep a copy before submitting documents to the Organiser.
3. The Organiser has the rights to disqualify participants who are reasonably suspected of violating the rules of the competitions, related laws (including intellectual properties law) and infringement of copyrights of others. Participants must understand and agree that violation of one of the abovementioned laws will lead to disqualifying of the competition without any explanation from the participants.

Presented price would be stripped if the team is disqualified. The Organiser will re-decide the winning team according to the original standard and rules.

4. individuals and teams agree and abide by the content and rules of the competitions, the Organiser has the final call to explain all the documents and consultation and rectify unconcerned matters relating to the competition.

Judging Criteria

Design concept

- Innovative, creative and narrative;
- Clean and neat with sense of beauty, not including unnecessary complex elements;
- Usage of feasible IoT solutions.

Compatibility with the scenario

- Matching the pain point of the scenario;
- Meeting the advocacy of WELL Plus;
- Linking up the scenario with its neighbourhood.

Feasibility

- Complying with construction regulations;
- Complying with industrial standards;
- Taking electricity and construction requirements into account;
- Cost control.

Sustainability

- Sustainable operation of IoT devices:
- Conservation of energy:
- Use of existing or common elements.

Presentation and Professionality

- Usage of 1-2 A1 size boards (Proposal draft);
- Self-explanatory materials with annotated sketches.

Judging Panel

- The Judging Panel would consist of professional architects and experts from Ronald Lu & Partners and Paul Y. Engineering, also from relevant industries, professional associations, and educational institutes.

Personal Data Privacy Statement

The Organiser is committed to safeguarding the Applicants' privacy and pledges to observe the requirements of the Personal Data (Privacy) Ordinance (Chapter 486 of the Laws of Hong Kong).

Except as specified in the "Purpose of Collection" section below, the Organiser will not disclose any Applicant's personally identifiable information to third parties except when having the Applicant's permission or under special circumstances, such as where required by law or in order to protect the Organiser's legal rights, or in connection with a merger, acquisition or sale of all or a substantial part of the Organiser's business, with or to another company. The Organiser will take all reasonable steps to ensure that the personal data the Applicants provide to the Organiser are properly stored.

Purpose of Collection

1. The personal data provided by means of this Application Form will be used for the following purposes:

- (i) registration of Entries and verification of the eligibility of the Applicants;
- (ii) correspondence with the Applicants;
- (iii) announcement of the results of I4U CHALLENGE and award of the prizes relating to I4U CHALLENGE;
- (iv) identification of the Applicants in publication, printing, display and exhibition of the designs; and
- (v) enforcement of provisions of the prospectus of I4U CHALLENGE.

2. It is obligatory for the Applicants to provide certain categories of personal data as required by this Application Form. Applicants who fail to provide the data required may be disqualified from I4UChallenge.

3. Personal data of an Applicant provided in this Application Form, as held by the Organiser, will be kept confidential. Nonetheless, such data may be disclosed to (i) the Organiser and its directors, officers, employees, servants and agents, (ii) any professional advisers appointed by the Organiser and the Organiser's auditors, (iii) any employees, servants, agents, affiliates, contractors or third party service providers who provides administrative, telecommunications, computer, payment, printing or other services to the Organiser in relation to I4U Challenge, (iv) any persons and corporate entities to whom the Organiser is obliged to disclose under the requirement of any law relating to the Organiser or any of its affiliates or business partners, (v) any governmental and judicial bodies or regulators, and (vi) the public, for purposes mentioned in paragraph 1 above.

4. The Organiser may transfer the personal data provided in this Application Form in connection with a transaction with another company which affects the control,

governance, structure and/or management of all or a substantial part of its business, or if required to satisfy applicable legal or regulatory requirements.

5. The Organiser shall keep the Applicants' personal data for as long as necessary to achieve the purpose for which it was collected and to comply with legal requirements. If the Organiser no longer needs the Applicants' personal data for any purpose, it will take reasonable steps to securely delete or destroy such personal data.

Access to Personal Data

The Applicants have a right to request access to and/or correction of their personal data provided in their Entry in accordance with the Personal Data (Privacy) Ordinance, subject to the Organiser's right to charge a reasonable fee for processing such data access and correction request. Should an Applicant need to exercise the right, the Applicant should make his/her request in writing to the Organiser.

Release and Limits on Liability

The Organiser is not responsible for any other errors or malfunctions of any kind, whether network, printing, typographical, human or otherwise relating to or in connection with X- Challenge, including, without limitation, errors or malfunctions which may occur in connection with the administration of I4U CHALLENGE, or arising from natural disasters, war, fire, flood, earthquake, explosion, acts of terrorism, epidemic or pan-epidemic or civil commotion, strikes or lockouts or labor disputes or other events that prevent I4U CHALLENGE from functioning as intended.

By entering I4U CHALLENGE, each Applicant hereby irrevocably releases and forever discharges the Organiser, its affiliated and subsidiary companies, and the officers, directors, partners, managers, members, trustees, employees, contractors, agents and suppliers of each (collectively, the "Associated Parties"), from any and all actions, causes of actions, claims, damages, losses, liabilities and demands of any nature whatsoever that the Applicant now has or hereafter may have against the Organiser and/or the Associated Parties howsoever arising from or relating to the Applicant's participation in I4U CHALLENGE.

To the maximum extent permitted by applicable law, the Organiser and the Associated Parties exclude all liability and responsibility for any amount or kind of loss or damage that may result to an Applicant or a third party (including without limitation, any direct, indirect, punitive or consequential loss or damage or any loss of income, profits, goodwill, data, contracts, use of money, or loss or damage arising from or connected in any way to business interruption and whether in tort (including without limitation negligence, contract or otherwise)) in connection with I4U CHALLENGE and/or the Organiser's official website.

Governing Law and Jurisdiction for I4U CHALLENGE

I4U CHALLENGE, including all issues and questions concerning the construction, validity, interpretation and enforceability of these rules, or the rights and obligations of an Applicant, shall be governed by and construed exclusively in accordance with the substantive laws of Hong Kong.

Each Applicant agrees that any action at law or in equity arising out of or relating to I4U CHALLENGE, or awarding of a prize, shall be filed exclusively in the courts of Hong Kong. By participating in I4U CHALLENGE, all Applicants waive any claims that may arise under the laws of countries, territories or jurisdictions other than Hong Kong. Those who choose to participate in I4U CHALLENGE from locations outside of Hong Kong do so on their own initiative and are responsible for compliance with local laws if and to the extent local laws are applicable.

If any provision of these rules is held to be invalid by a court of law or similar, such provision shall be deemed to be severed from these rules and invalidity shall not affect the enforceability of any other provisions not held to be invalid.