



The University of Hong Kong
Technology Transfer Office



VERSITECH LTD.

The University Technology Transfer Company

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MAPPING OUT A NEW DIGITAL WORLD



SUCCESSFUL STORY

The Perfect Concoction of BIM, AI and Blockchain Technology

Building engineers face a constant torrent of challenges – limited manpower, tight budgets, accelerated schedules and scattered information, to name but a few. If they are to recall each and every single detail, it will surely be a true test of memory as the fragments of memory they dredge up may not fit well together. But now, no longer will a 3-D prototype be located in one place and the project data in another. Different stakeholders from the Architecture, Engineering, Construction and Owner-operated (AECO) industry have rejoiced the state-of-the-art BIMwarehouse that Llewellyn and Partners Company Limited (LPC) has to offer.

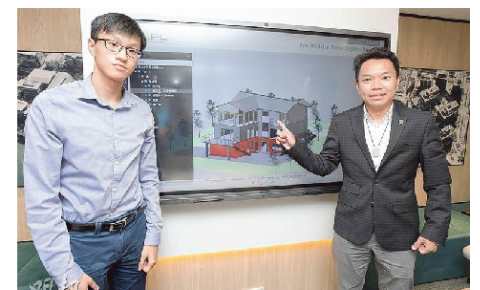
Founded by Ir Dr Llewellyn Tang, Associate Professor in Building Information Modelling (BIM) in the Department of Real Estate and Construction, the Faculty of Architecture at the University of Hong Kong (HKU), LPC sets its sights on developing a global digital ecosystem powered by BIM, AI and Blockchain Technology for the AECO industry. Its flagship product, BIMwarehouse, is an ISO-compliant platform with an integration of project and asset information management solution that supports a broad spectrum of work that architects undertake in planning, shaping, visualising, simulating, constructing, and evaluating buildings. BIMwarehouse provides BIM family library and database where it

applies Industry Foundation Classes schema specification to codify and regulate data input and storage. As a Common Data Environment, BIMwarehouse allows multi-disciplined teams – architects, facility operators, contractors, tenants and other administrators – to create and share a plethora of building information, such as geometric designs, registers, schedules, contracts, reports and model details during a project’s lifecycle. This, in turn, can streamline the process of data collection and authorisation while ensuring that necessary information is in place. Users can also look at different phases of a building, whether they are procurement, construction, operation and decommissioning, to make informed decisions about a building from construction to demolition.

Other key products of this one digital solution include AutoBIM, AutoCDE, AEC²hain as well as digitalisation adoption and index. LPC also provides rigorous executive consulting and training for the Asia-Pacific market. Ir Dr Tang has extensive experience in large-scale BIM and information management R&D projects for smart city development and infrastructure in the UK, China and Hong Kong. His wise international practices on BIM adoption, training, research and development were widely recognised. Recently, he received an honour as a BIMer in the Celebration of BIM Achievement 2020 by the CIC.

As Ir Dr Tang delved into his start-up plans, he realised that there were unknown gaps in starting, running and scaling a business. He was thankful to have the swift and timely responses from the Technology Transfer Office (TTO) which helped mitigate many of the challenges along the journey. TTO has also brought exciting opportunities for LPC to secure solid funding from the Technology Start-up Support Scheme for Universities (TSSSU@HKU), become a member of the Incu-Tech Programme with the Hong Kong Science and Technology Parks Corporation, and gain maximum exposure from our Technology Transfer Primer.

Ir Dr Tang believes that the future of BIM is bright. He and his start-up team will be vital in the mission to transform the AECO industry and enable different stakeholders to work at an open, interoperable, and collaborative format.



Ir Dr Tang taps the value of digitisation and anticipates that positive changes are on the horizon.

PHOTO COURTESY OF MING PAO

RECENT HIGHLIGHTS

TTO has successfully launched four webinar sessions co-organised by TusPark recently under the popular theme of the Greater Bay Area (GBA). In the four webinar sessions, we invited experienced speakers ranging from the Shenzhen and the Guangzhou Government, to business incubators, and to universities, to uncover the secrets for start-up companies in Hong Kong to thrive in the GBA. A broad selection of topics included

cross-border challenges and opportunities, the tech start-up ecosystem and funding, governmental supports for innovation, technology policies as well as industry policies in the GBA. All the four sessions have attracted a wide audience, reaching over 300 people who were eager to entrust their learning with us. TTO also co-organised a series of Biomed Entrepreneurship Talks with the School of Biomedical Sciences at HKUMed. Three sessions would be hosted on 13 Jan, 17 Mar, and 12 May 2021. Interested parties should register to discover innovative ways to translate their bold ideas into reality.



Scan to see all our events!

Patents at a Glance

TTO continued to protect HKU's intellectual property in a timely fashion. 11 patents were filed cumulatively from 15 December 2020 to 13 January 2021 and recapitulated as follows:

IIP00995 Prof. Mingxin Huang; ME (US Provisional Filed on 16 Dec 2020) A Method of Cu-Cu Direct Welding for Packaging Application in Semiconductor Industry

IP01015 Prof. Kwok Yung Yuen; Microbiology (US Provisional Filed on 17 Dec 2020) Compositions Immunogenic against Influenza and SARS Coronavirus 2, Methods of Making and Using Thereof

IP01006 Prof. Chi-Ming Che; Chemistry (US Provisional Filed on 18 Dec 2020) Platinum (II) Tetradentate Complexes with Five-Membered Chelating Ring(s)

ZIRI00011 Prof. Lixi Huang; ME (Chinese Invention Application Filed on 18 Dec 2020) Impervious Cover Design for Sound Absorption Devices

IP00903 Dr. Hai Ming Wong; Dentistry (PCT Filed on 18 Dec 2020) Antibacterial and Mineralizing Coating on Tooth Surfaces for Prevention of Dental Caries

IP00782 Prof. Chik Ho Choy; EEE (Chinese Invention Application Filed on 28 Dec 2020) Methods for Manufacturing Spinel-Type Ternary Metal Oxides as Hole Transport Materials

IP00786 Dr. Anderson Ho Cheung Shum; ME (Chinese Invention Application Filed on 6 Jan 2021) Automatic Microfluidic System for Continuous and Quantitative Collection of Droplets

IP00988 Prof. Barbara Chan; ME (US Provisional Filed on 8 Jan 2021) A Novel Biomaterial with High Glycosaminoglycan / Hydroxyproline Ratio, Methods and Applications for Tissue Engineering

IP01020 Prof. Tong Zhang; Civil Engineering (US Provisional Filed on 8 Jan 2021) Sewage Surveillance for COVID-19: Testing Methods, Classification Scheme, Data Interpretation and Use

IP00889 Prof. Lit Man Poon; School of Public Health (PCT Filed on 11 Jan 2021) Recombinant Viruses Expressing Alpha-1,3-Galactosyltransferase and Uses Thereof

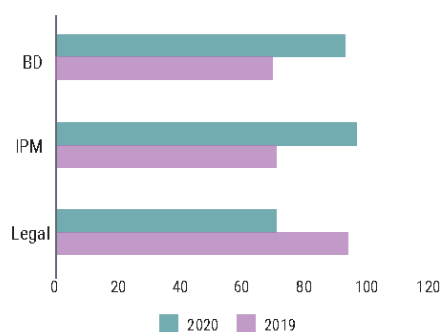
IP00797 Prof. Xiao Yan Li; Civil Engineering (US Regular Filed on 12 Jan 2021) Gravity-Driven Chitosan-Enhanced Melamine Sponge for Stable Ultrafast Filtration

Remarkable Efforts

Our three service arms – the business development (BD), intellectual property management (IPM) and the legal team – have again come in full force to achieve TTO's long-term strategic goals in commercialising HKU's innovations. In December 2020, the total engagements and handling cases of the teams gained 11.1%, a year-on-year spurt that has won acclaim for TTO's supreme performance from our research community.

The technology commercialisation and industry engagement, entrepreneurship and incubation support as well as marketing outreaches by the BD team marked the fourth straight month of growth in December 2020 and leapt 32.9% from a year earlier, bringing a total of 93. The number of cases handled by the IPM team in respect of IDFs, office action matters, evaluation reports, USP/ PCT/ national application filings and more rose 36.6%, closing at another record high of 97. Our legal team remained a focal point in providing inclusive and high-quality legal services. In December, the team opened 71 new cases while completing 66 complicated cases, some of which concerned inventions fighting the covid-19 pandemic and treating ailing individuals.

Total Engagements and Handling Cases



About TTO

The Technology Transfer Office (TTO) is committed to maximising the impact of research through technology transfer at both the institutional and industrial levels. TTO works closely with researchers at HKU to commercialise their inventions through professional consultation on business development, legal advice and assistance, as well as patent application filings. Your inventions would not benefit the society until they are mass produced. Contact us for such a transformation.

About Versitech

Versitech Limited is the commercial arm of HKU. Versitech negotiates, executes and manages commercial business contracts and agreements on behalf of the University.

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<https://www.facebook.com/HKUTechnologyTransferOffice>

WeChat ID: HKUTTO

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Transferring Your New Technologies into Business Opportunities

Policy Stipulation

The latest policy stipulates that the net receipts arising from the exploitation of an Invention are shared among the University, the relevant faculty/department and the inventor(s) in the ratio of 1/3 : 1/3 : 1/3. It aims to encourage the researchers at HKU not only to excel in academic performance but also to apply their technology for the benefits of mankind with an impressive reward.

Share Your Success Story

Do you have a success story you want to share with colleagues and experts in the field? Your success story can inspire greatness. Don't hesitate to send us your story at:

tto_marketing@tto.hku.hk



How to Apply: 4 Phases for Research Projects

Phase 1: Initial project negotiation

1. PI will negotiate with their collaborator(s) and confirm a project proposal which includes the scope, budget and duration of the project.
2. PI will negotiate with their collaborator(s) and prepare a draft agreement (Agreement templates are available at the website of the Research Services (RS): <http://www.rss.hku.hk/contracts/contractresearch/templates.>)

Phase 2: Endorsement from department/faculty

3. PI will submit the project proposal, the draft agreement, and the information form/grant application form to their department/faculty to seek an approval (The information form for research/consultancy agreements is available at: <http://intraweb.hku.hk/local/rss/tto/researchor-consultancy-agreements-form.doc>).
4. After obtaining the approval, PI will submit the project proposal, the draft agreement, and the information form/grant application form to the Research Service (RS).

Phase 3: Financial legal/IP review

5. The RS will distribute the project proposal and the draft agreement to the Finance and Enterprises Office (FEO) for financial review and to the Technology Transfer Office (TTO) for legal review.
6. If there is any financial/legal issue, the FEO/TTO will inform PI through the RS. PI will negotiate with their collaborator(s) on the financial/legal issue until it is settled.

Phase 4: Signature and document archiving

7. After consolidating the settled project proposal and the agreement, the RS will proceed to the signature process.
8. After duly performing the signature process, the RS will assign the RCGAS number(s) for opening the project account(s) and archiving all the documents.

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