



# Global BIM Manager Professional Training

- Course Brochure -





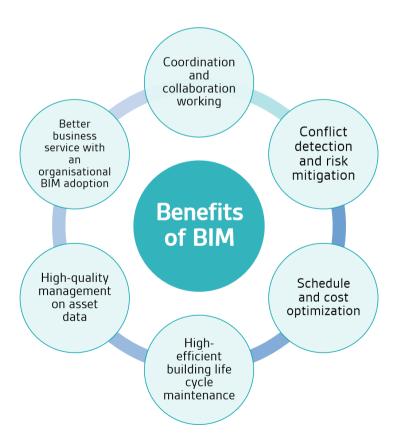




#### WHAT is BIM?

BIM is revolutionizing the way the construction industry creates and cares for its assets around the world. It ensures that everyone in the supply chain; from architects, engineers, constructors and facilities management share information in a collaborative way. It is a new method of construction that delivers major benefits - most notably time and cost savings through building in a collaborative and by managing costs through the whole lifetime of a building. To facilitate the adoption of BIM BSI developed, together with construction industry experts, the UK 1192 series of standards which define BIM Level 2 published in 2013. The ISO 19650 suite of standards moves towards internationalising these standards.

Since 4 April 2016, BIM Level 2 is mandatory in a government project in UK. The use of BIM is also becoming more commonplace in other countries, such as Singapore, South Korea, Canada and China etc. In Hong Kong, BIM is being implemented in various sectors, such as BIM for Statutory Submissions in Architectural Services Department, BIM for Asset Management in Electrical and Mechanical Services Department, BIM for Utilities Design in Water Supplies Department etc.



In 2017, the HKSAR Government decreed that BIM technology must be used in the design and construction of all major government capital works projects with a project estimate of more than HK\$30 million that were scheduled to start during or after 2018, and that the use of this technology in private construction projects should also be promoted.

In addition, to ensure the healthy development of BIM in Hong Kong, Construction Industry Council (CIC), has introduced the BIM Certification and Accreditation Schemes to ascertain the competency of BIM personnel and the quality of local BIM training courses. To be eligible for certification as a CIC-Certified BIM Manager (CCBM), one of the requirements is the successful completion of BIM Manager course accredited by CIC.

To cope with the surge in demand for BIM personnel and training needs, we are pleased to announce that BSI launches the "Global BIM Manager Professional Training". The purpose of this course is for the preparation of CCBM application and it is the route to be a CCBM. We aim to offer delegates a quality BIM Manager training with the appropriate skill levels and competency in using BIM technology at international standard.







## Background of Institution

## BSI - Source of the Standards BSI formulated PAS 1192 standard

The UK currently the region, which sees the fastest growth in the application of BIM. As one of the countries utilising BIM for many government projects at the earliest, UK not only published various regulations and relevant standards but also issued the mandatory policies in April 2016. During this course, BSI played an important role in BIM standardisation pushed by the UK government: in 2014, entrusted by the Construction Industry Council (CIC) of UK, BSI formulated PAS1192 standard.

Meanwhile, BSI also provides the construction companies globally with the standard certification services specific to the BIM competency for project delivery in design and construction stages. In 2016, BSI launched the BIM-related Kitemark. So far, the enterprises which have been certified by BSI Kitemark: Balfour Beatty Plc, BAM Ireland, BAM Construct UK Ltd, Gammon Construction Ltd, Skanska UK Plc and voestaplineMetsecPlc.

## Admission Requirement:

#### Qualification:

A degree in architecture, engineering, surveying, building or construction, or equivalent as recognized by CIC, plus five years of relevant post-degree experience (including at least six months in Hong Kong)

#### Practical BIM experience:

At least two years of practical experience in BIM in past five years (including at least six months in Hong Kong)

\*Non-standard route of admission will be given to applicants who do not meet the admission requirements under special consideration of BSI in consultation with CIC

#### Policies and procedures for admission

- Completion of Application Form by internet or hardcopy formats
- Submission of relevant original documents to prove the requirements as stated
- The profile of the applicant will be sent to training operations manager for approval









## WHO should take this course?

#### The training course targets, but not limited to:

- CEOs, CFO, CIOs, & COOs
- **BIM Managers**
- Asset, Engineering, Quality, Facility, Project, Technical Managers
- Real Estate Developers
- Civil, Mechanical and Structural **Engineers**
- **Architects**
- Construction Professionals
- Contractors
- Surveyors
- Academia and Government Authorities

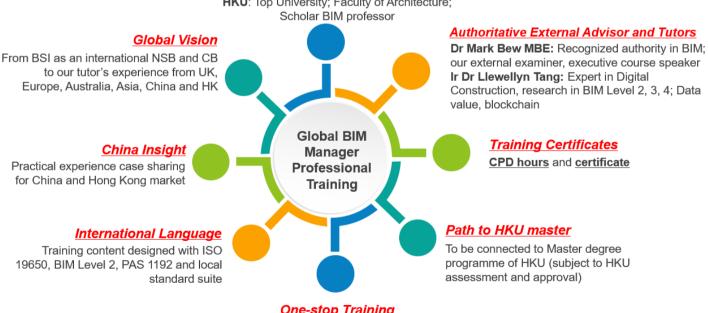
#### From the following industries:

- Government
- Construction
- **BIM Consultancy**
- **Building Materials**
- Quantity Surveying
- Project Management
- Architecture
- Real Estate Planning and Development
- Asset Management
- Property and Facility Management
- Green Building Development and Management

## WHY this course?

#### **Course Content**

Course content developed by BSI and HKU BSI: NSB; Royal Charter; Thought Leader; BIM Level 2; ISO19650; Kitemark, Quality and Trust HKU: Top University; Faculty of Architecture;



One-stop Training

Flexible Training Option: Global BIM Manager Professional Training; Business Review of BIM; BIM Executive Talk

and more...







## RTTP Fund Claimable

Our Global BIM Manager Professional Training is registered under VTC Reindustrialisation and Technology Training Programme (RTTP), which is a funding scheme under the Innovation and Technology Fund that subsidises local companies 2/3 of the training cost to train their staff in advanced technologies, especially those related to "Industry 4.0".

The course fee is HKD 6,000 only (original: HKD 18,000) after RTTP reimbursement.

For details of RTTP, please refer to VTC website at <a href="https://rttp.vtc.edu.hk/">https://rttp.vtc.edu.hk/</a>.



## CITF Fund Claimable

Our course is also registered under the Pre-Approved Lists of Construction Innovation and Technology Fund (CITF). Funding ceiling is HK\$200,000 per applicant. With the funding ceiling, each person enrolling training is entitled to HK\$3,000 per course at maximum.

The course fee is **HKD 15,000 only** (original: HKD 18,000) after CITF reimbursement.



For details of CITF, please refer to CITF website at <a href="https://www.citf.cic.hk/">https://www.citf.cic.hk/</a>

## WHAT will be taught?

Course content covers ISO 19650-1:2018, ISO 19650-2:2018, ISO 19650-3:2020, BS 1192-4:2014

## Day 1 - Introduction to BIM and Digital Information Management (I)

#### Topic How this will help you BIM concept Understand the basic principles and terminology of BIM Local & Global Contexts, BIM standards and Understand the governments' objectives towards achieving Level 2 BIM, HK BIM and ISO quidelines BIM BIM software Technology trend Engage with clients on the benefits and key drivers associated to BIM Digital information management Understand BIM software and technology trend Common Data Environment (CDE) Understand the value of information and how it should be managed, delivered and used through the capital, delivery and occupation phases of a project Create a common data environment and understand how to deliver information in line with the Design Responsibility matrix and individual supplier responsibilities Understand Construction Operations Building Information Exchange (COBie) Learn how to utilize Industry Foundation Classes (IFC)







# Day 2 - BIM Digital Information Management (II), BIM Commercial and Contract

Topic	How this will help you
<ul> <li>Data quality control &amp; assurance across various stages</li> <li>Commercial issue</li> <li>Contract issue</li> </ul>	<ul> <li>Grasp the concept of 'Digital Built' and ensure your business recognizes the need for the development of BIM as part of the agenda</li> <li>Grasp the practical application of BIM requirements to a client's facilities management strategy and goals</li> </ul>
	<ul> <li>Advise clients on how to manage data more effectively and in turn become a desirable supply chain member for them in the future</li> </ul>
	<ul> <li>Manage teams and projects to ensure all members of the supply chain are aware of the requirements to be able to deliver</li> </ul>
	Learn legal and contractual implications of BIM and how they may affect your projects

## Day 3 - BIM Uses and Processes (I)

Торіс	How this will help you
<ul><li> Client BIM Strategy</li><li> Client Pre-tender Project Stage</li></ul>	<ul> <li>Understand the importance of data from the client via the Employers Information Requirements (EIR)/ Project Information Requirements (PIR) document</li> </ul>
	Understand the development and requirements of the Project Information Model (PIM)
	<ul> <li>Understand the data relevance and collating a plan for an Asset Information Model (AIM) in line with PAS1192-3</li> </ul>

# Day 4 - BIM Uses and Processes (II)

Topic	How this will help you
<ul> <li>Definition and Design Stage</li> <li>Construction Stage</li> <li>Handover Stage</li> <li>Operations and Maintenance Stage</li> </ul>	<ul> <li>Understand the basic principles, processes and procedures of BIM</li> <li>Execute the core principles and achieve Level 2 BIM in your projects</li> <li>Assess the supply chain to see if they have the skills and knowledge to deliver BIM</li> </ul>
	<ul> <li>Create and use documents such as the BIM Protocol, BIM Execution Plan (BEP) and the Master Information Delivery Plan (MIDP)</li> <li>Gain a better understanding of the relationship between design, construction, facilities, asset management to provide better solutions for your clients</li> <li>Know what to look for when being appointed and how BIM affects your contracts</li> </ul>
	5 11







## Day 5 - BIM Review and Assessment

Topic	How this will help you
<ul><li>Activities</li><li>Assessment</li></ul>	Identify the key benefits of implementing BIM
	Understand how to effectively embed BIM processes within your business
	Develop a plan and determine the resources required for implementation  Applying the resource are a supplying the resources.
	<ul> <li>Apply industry good practice across your supply chain</li> <li>Discover a variety of strategic and technical solutions from implementing BIM</li> </ul>
	Create a change management programme in line with BIM
	Analyse and dissect the barriers to BIM in relation to building and construction

## **Principal Advisor**



**Dr Mark Bew** MBE PhD PSc (Hons) CEng CITP FICE FRICS MBCS

Mark is Chairman of PCSG Limited and over the last thirty years has developed a track record of delivering successful innovative process and technology-driven business change programmes from within the Engineering and Construction industry. These include the development of Building Information Modelling (BIM) and Smart City standards and the delivery of systems into asset suppliers, owners and operators to improve asset performance and service outcomes.

Mark is at the forefront of UK and European BIM development and the push towards a digitally enabled construction sector. As Chairman of the Government's BIM Task Group, he leads the Digitally Built Britain programme, which will merge the development of BIM, Smart Cities, industrial controls and advanced manufacturing, to accelerate the digitalisation of the sector and unearth benefits including increased value and reduced costs.







## Instructor Team

## **Programme Director**



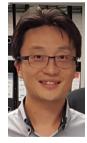
Ir Dr Llewellyn Tang

BSc(First Class Hons); PGCert; PhD; FHEA; MHKIE; MCIOB; FCInstCES; CCBM Associate Professor in Building Information Modelling (BIM) Master of Science in Integrated Project Delivery [MSc (IPD)] Department of Real Estate and Construction, Faculty of Architecture, The University of Hong Kong

Currently Associate Professor in Building Information Modelling in the University of Hong Kong, Programme Director of Master of Sciences in Integrated Project Delivery, Director of i5 BIM Research Group, Founder of Llewellyn and Partners Co. Ltd. (First HKU BIM Innovation Start-up), Certified BIM Manager (CCBM), BSI Certified BIM tutor (PAS1192/ISO 19650), Chartered Engineer (MHKIE), Chartered Construction Manager (MCIOB), Fellow of the Chartered Institution of Engineering Surveyors (FCInstCES), Fellow for the Higher Education Academy UK (FHEA), Member of the BIM Assessment Panel (BIMAP) of CIC, Committee member for Hong Kong for ISO/TC 59/SC 13, Former Head of Department of Architecture and Built Environment (2012-2017) at the University of Nottingham Ningbo China, Former Lecturer and Postdoctoral Researcher at the University of Reading and Loughborough University respectively, Former Deputy Chairman for the Hong Kong Institution of Engineers (UK Chapter), Former member of Construction Excellence BIM Industry Task Group for the UK Government.

With over a decade international and local experience on BIM adoption and innovation, Tang led a team of BIM research scientists completing large-scale BIM and information management projects, assessing and developing many national BIM centre and standards. In early 2018, as a pioneer, Tang successfully introduced UK BIM level 2 into China for a real estate developer helping her to tap the most value of this international standard for their digitization journey. The same year, the team designed an application of a strategic framework for the national new smart city (Xiongan New Area) based on A.I., BIM, IoT and Blockchain. The research outcome was delivered in TEDx 2018. Tang continues to bring good international practice on BIM adoption, training, research, and development into Hong Kong. In Q4 2020, as a major BIM achievement, Tang is awarded the BIMers 2020 by the Construction Industry Council.

#### Certified BIM Instructors



Ir. Cedric Chi

BSc(Hons); MSc; MAIB; MCIOB; MHKIE;

BEAM Pro; MRICS; CCBM

Cedric is a Construction Project Management profession having over 20 years' experiences in handling large scale projects. He has participated in both civil and building works who responsible for the coordination and monitoring works between relevant parties and statutory submission in different construction stages. His duties including the planning, immersive review (BIM) and supervision of daytoday site progress in order to complete the project on time and within budget. He is a professional construction project manager with several international qualifications and he also has a sound knowledge of Government procedures and statutory submission and ordinances.









Rebecca De Cicco
BIM Tutor, British Standards Institution
Fellow of the Chartered Institute of Building
Chairlady of "Women in BIM"

Rebecca supports Building Smart globally, sits on the Autodesk Developer Network and Expert Elite groups and works with the UK BIM Alliance and BIM Regions to help industry upskill. She is a strong advocate for diversity (Chairlady of "Women in BIM") and works with higher education by tutoring and lecturing both undergraduate and postgraduate students in BIM and construction management.

She is also a fellow of the CIOB and offers support and training to institutions in the BIM space. Having a keen interest in BIM and the drive toward implementing BIM in the UK, she was invited to join a number of leading industry groups such as the BIM Task Group and Building Smart.



Steven Eglinton
BSc (Hons), FBCS, FBCart.S, MIoD, MPWI
BIM Tutor, British Standards Institution

Steven is a very experienced geospatial information management and digital transformation specialist with 20 years' experience of strategic definition, project management & hands-on solutions implementation, particularly within the physical asset management, Built Environment and Natural Environment sectors.

His background is in mapping, Geospatial solutions and GIS, but now consults on asset information management and modelling in the widest context. Most often Steven works with Architecture, Engineering, Construction, Owner Operator (AECOO) and asset management clients - such as property developers, Railway infrastructure companies and Utilities companies.



**Dr. Alaric Kuo**Client Manager
British Standards Institution

Alaric is a passionate BIM champion in Taiwan's social network. He created first BIM information news Facebook page in 2010, and actively participated in Taiwan Building Information Modeling Association (TBIMA) since 2012. Alaric is Director and Vice Secretary in the 5th Director Board of TBIMA. Alaric not only had rich experiences in teaching and lecturing, but also had numerous publications including research papers in prestigious conference and journal, blog post, magazine article, and textbook chapter. With the passion in disseminating BIM knowledge, he organized over 100 BIM events ranging from study group seminar to national conference.

Alaric is the member of Taiwan BIM Task Group to support the local adaption of ISO 19650 series. The members of Taiwan BIM Task Group including NTU BIM center, TCRI, TABC and TBIMA are the most prestigious organization in Taiwan BIM development.









Ir. Ken Mao BSc, BEng, MBA, RPE (BUD), MCIOB, MHKIE, MHKIBIM, MbSHK, CCBM, BIMers 2020

Ken is a Registered Professional Engineer of ERB, Chartered Builder of CIOB, CIC Certified BIM Manager (1st batch) and professional member of HKIBIM and HKICBIM. His endeavour to construction has been recognized by obtaining HKIBIM BIM Awards - Grand Award in two consecutive years (2018 & 2019), BIM Level 2 verification certification in 2019, Quality Public Housing Awards - Innovative Use of BIM Technology in 2017 & 2019 and Quality Public Housing Awards - Safety Innovation in 2019 for Paul Y. Engineering Group.

Ken has been one of the pioneers in BIM development and implementation for Paul Y. Engineering Group for over 10 years, leading a team of BIM specialists in enhancing corporate BIM standards, engaging in BIM training programs and adopting BIM across projects.

Ken has possessed a passion for construction technology in which he has developed several innovative and practical digital applications for enhancing site safety management. He will continue his commitment to BIM development in Hong Kong without hesitation when necessary.

In year 2020, he was awarded the certificate of BIMers 2020 which demonstrated his outstanding achievement and contribution to local BIM industry.



Mr. Johnny Tam M.Eng (Hon) ME, MSc IPD, CCBM

Johnny has more than 10 years experience in the construction industry E&M field, as designer, contractor, and managerial roles after completing MEng (Hons) Mechanical Engineering in the University of Nottingham, UK in 2010. He has been promoting wider BIM adoptions for E&M DfMA, project management applications in various commercial, infrastructure and institutional projects in the past 5 years and acquired CCBM in 2020.

He is now working in Paul Y. Engineering Group as Assistant Technical Manager to promote digital transformation of business processes and to help developing corporate BIM roadmap and innovation strategy. He is now taking the final year of the MSc Integrated Project Delivery in the University of Hong Kong to master the knowledge of organizational technology diffusion and change management.







## Certificate



Notes: Trainees will be granted training certificate issued by BSI upon completion of the course and passing the examination.

## **Training Details**

	5 days, (09:00 – 18:00) or
	10 half-days, (4 hours per morning/ afternoon session, exact time to be varied)
Venue:	23/F, Cambridge House, TaiKoo Place, 979 King's Road, Island East, Hong Kong or Online Virtual Training

## Passing Requirements

Passing requirement for the full course: 60% of the total score

- 25% of the daily workshop
- 25% of the assignment
- 50% of the examination

Exam lower than 60% of the total score will be regarded as Fail.

One time (only) re-take of the exam can be arranged, Fee: HKD 500.

## **Enrolment**



Find out more Call: +852 3149 3334 Email: hk@bsigroup.com Visit: bsigroup.com/en-HK

https://bit.ly/2WN3Kbk