

HKIE Certification of BIM Qualification

1. Introduction

1.1 HKIE BIM Certification Scheme

The certification system serves as a means for prospective candidates to meet the eligibility criteria for inclusion in the “Engineering BIM Professional (Eng BIM Pro)” or “Engineering BIM Coordinator (Eng BIM Coord)” register of The Hong Kong Institution of Engineers (HKIE), with the aim of enhancing the capacity and competence of HKIE members in the utilisation of BIM for building and engineering undertakings. This is in response to the escalating need for BIM personnel, specifically for the roles of project BIM Team Leader and BIM Coordinator, as stipulated by the BIM Team Structure requirements under TC(W) No. 2/2021, as issued by the Development Bureau.

1.2 Objectives

The primary aims of certification are to guarantee that candidates possess the requisite training and practical experience, as well as a sufficient level of expertise in the professional application of BIM, which is deemed acceptable by HKIE for inclusion in the “Eng BIM Pro” or “Eng BIM Coord” register. Additionally, the standards should be at least equivalent to those set forth by the Construction Industry Council (CIC) for certification as CCBM and CCBC.

1.3 Core Competencies of “Eng BIM Pro”

The Core Competencies of an “Eng BIM Pro” are:

- i) Possess the professional knowledge and expertise to serve as a BIM Team Leader in Engineering Practice, implementing BIM methodologies across various project stages.
- ii) BIM Initiation (Adeptness in initiating and leading the adoption of BIM standards (including ISO 19650) and methodologies specifically within engineering projects, ensuring alignment with local and global contexts; Ability to describe BIM concepts, definitions and scopes, BIM standards and guidelines in the Hong Kong and global contexts). [Level 2]
- iii) BIM Software and Technologies (Proficiency in evaluating and selecting appropriate BIM software, platforms, and emerging technologies (e.g., AI, Digital Twins, CSDI) to optimize engineering information production and modelling workflows; Ability to describe BIM software/platforms and their modelling and digital information development processes, and various technologies associated with BIM). [Level 2]
- iv) BIM Uses and Processes (Expertise in formulating and managing engineering-specific BIM uses, workflows, and information requirements (OIR, AIR, EIR) throughout the project lifecycle to ensure successful delivery; Ability to explain BIM uses, processes and BIM software/platform utilisation, and to design and manage end-to-end BIM project workflows). [Level 4]
- v) Digital Information Management, Collaboration and Integration (Competency in establishing and governing the Common Data Environment (CDE) and quality assurance procedures to ensure data integrity across multi-disciplinary engineering collaborations; Ability to plan, establish and manage Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects). [Level 4]
- vi) Commercial and Contractual Aspects (Expertise in strategically advising on commercial implications, resource management, and contractual liabilities related to BIM implementation in engineering contracts; Ability to explain commercial and financial considerations, and comply with contractual issues related to BIM implementation). [Level 4]

- vii) Communication Skills (Ability to apply effective communication skills to facilitate cross-disciplinary engineering coordination, conduct training, and present technical BIM solutions to stakeholders). [Level 4]
- viii) Leadership, Management and Integrity Aspects (Capability to lead and manage BIM teams with professionalism, upholding engineering ethics and integrity while fostering a collaborative culture).

1.4 Core Competencies of “Eng BIM Coord”

The Core Competencies of an “Eng BIM Coord” are:

- i) Possess the knowledge and capabilities in their respective engineering disciplines, functioning as an Eng BIM Coordinator in projects to facilitate horizontal coordination of project information between parties and disciplines, as well as vertical coordination between professionals and BIM technicians, across various project stages.
- ii) BIM Initiation (Understand and apply BIM standards, guidelines, and concepts within the context of engineering disciplines). [Level 2]
- iii) BIM Software and Technologies (Proficiency in operating BIM software/platforms for engineering modelling and understanding associated technologies to support digital information development). [Level 3]
- iv) BIM Uses and Processes (Competency in executing and administering assigned BIM uses and coordination tasks to support engineering design and construction delivery). [Level 3]
- v) Digital Information Management, Collaboration and Integration (Competency in administering the Common Data Environment (CDE) workflow and executing information exchange and maintain engineering data quality; Ability to execute and administer the operation of Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects). [Level 3]
- vi) Communication Skills (Ability to apply reasonable interpersonal and communication skills to participate in engineering coordination meetings and prepare BIM-related documentation). [Level 3]
- vii) BIM Information Exchange knowledge (Ability to handle the exchange of BIM information between parties with an emphasis on quality).

2. Eligibility

2.1 Eng BIM Pro

Eng BIM Pro	
Qualifications	Corporate Members of the HKIE (FHKIE/ MHKIE)
Recognised Practical BIM Experience	Candidates should have no less than TWO YEARS of BIM working experience in the past five years (including at least six months in Hong Kong) in the execution and management of BIM projects, such as in the development of BIM standards, planning, design, contract administration etc., plus the execution of BIM projects, counting up to the application form submission date.
BIM Training	Successful completion of CIC-Accredited “Certificate for Building Information Modelling Manager” (EG424129Q) offered by the Vocational Training Council with content tailor-made for the HKIE members.

Eng BIM Pro	
Submission of Supporting Document	1. Completed and signed Application Form for Certification of Engineering BIM Professional (Eng BIM Pro) (FORM 1/EBP), with a statement between 1,500 and 2,500 words on all core competencies, including key project information, the applicant's role and BIM tasks accomplished. Each BIM project experience is to be certified by a FHKIE/MHKIE in the Employer organisation who has knowledge or understanding of the applicant's work; 2. Completion certificate of CIC-Accredited "Certificate for Building Information Modelling Manager" offered by the Vocational Training Council with content tailor-made for the HKIE members; 3. Portfolio of work examples that demonstrates the applicant has gained at least 2 years of practical experience in BIM over the past 5 years (with a minimum of 6 months stationed in Hong Kong); and 4. Curriculum Vitae.
Acceptance Requirements	1. Submitted document accepted by the Assessors; and 2. Passing an Interview arranged by HKIE to assess whether the applicant possesses the core competencies as stated in 1.3 and the required practical experience.
Application Fee	HK\$1,000 (All payment received are non-refundable and non-transferable)

2.2 Eng BIM Coord

Eng BIM Coord	
Qualifications	Corporate Members of the HKIE (FHKIE/ MHKIE) or Associate Members of the HKIE
Work Experience	Have at least three years of full-time relevant work experience (with at least six months stationed in Hong Kong)
Recognised Practical BIM Experience	Candidates should have no less than ONE YEAR of BIM working experience in the past five years (including at least six months in Hong Kong) in feasibility and planning, design, project coordination & administration etc., plus operation of the BIM project CDE, counting up to the application form submission date.
BIM Training	Successful completion of: (i) CIC-Accredited "Building Information Modelling for BIM Coordinator" (CON4185X) offered by the Vocational Training Council with content tailor-made for the HKIE members; AND (ii) (a) BIM software/ platform training course in operation level as recognised by CIC, OR (b) possession of any certification of BIM software in operation level issued by respective software developers OR any equivalent as accepted by CIC. For CIC recognised BIM software/platform training course in operation level, please refer to the list of Construction Innovation and Technology Fund (CITF) preapproved BIM Training Course available on website of CITF (http://www.citf.cic.hk/?route=search). Skill Level: 2 to 3 is expected (except for CIC-accredited BIM Coordinator Course in the list).

Eng BIM Coord	
Submission of Supporting Document	1. Completed and signed Application Form for Certification of Engineering BIM Coordinator (Eng BIM Coord) (Form 1/EBC); 2. Completion certificate of: (i) CIC-Accredited “Building Information Modelling for BIM Coordinator” (CON4185X) offered by the Vocational Training Council with content tailor-made for the HKIE members; AND (ii) (a) BIM software/ platform training course in operation level as recognised by CIC, OR (b) BIM software in operation level issued by respective software developers OR any equivalent as accepted by CIC; 3. Portfolio of BIM working experience with a statement not exceeding 2,000 words in total on all core competencies, including key project information, the applicant's role and BIM tasks accomplished (incorporated in the application form). Each BIM project experience is to be certified by a FHKIE/MHKIE in the Employer organisation who has knowledge or understanding of the applicant's work; 4. Curriculum Vitae; and 5. Proof of three years of full-time relevant work experience (with at least six months stationed in Hong Kong).
Acceptance Requirements	1. Submitted document accepted by the Assessors; and 2. Passing an Interview arranged by HKIE to assess whether the applicant possesses the core competencies as stated in 1.4 and the required practical experience.
Application Fee	HK\$500 (All payment received are non-refundable and non-transferable)

3. Review of Interview / Assessment Results and Handling of Appeal

In the event of an unsuccessful Interview/Assessment outcome, a candidate has the option to request a review of their result by submitting a written application to the HKIE Professional Certification Committee (PCC) within 14 calendar days of the announcement of results (excluding the day of the announcement), accompanied by an application fee of \$970, and providing brief grounds for review. Late appeals will not be considered.

The applicant must demonstrate, through sufficient evidence, that there is justification for such an application. The PCC shall review the case and make a recommendation to the Qualification & Membership Board. Successful appeals will be refunded in full.

4. Renewal of Registration

The HKIE Council shall maintain a Registry for Eng BIM Pro and Eng BIM Coord, which shall be accessible to the public for review via the HKIE website.

HKIE members listed as Eng BIM Pro or Eng BIM Coord shall remain on the registry upon annual renewal of their HKIE membership, provided that they have completed 12 hours of Continuing Professional Development (CPD) related to BIM. The renewal fee for the certification of Eng BIM Pro and Eng BIM Coord is HK\$250 each.

5. Streamlined procedure for assessment of Eng BIM Pro as CIC-Certified BIM Manager (CCBM) and Eng BIM Coord as CIC-Certified BIM Coordinator (CCBC)

Applicants for Eng BIM Pro may apply for CIC-Certified BIM Manager (or Eng BIM Coord for CIC-Certified BIM Coordinator) under a streamlined assessment procedure as follows:

- i) For Eng BIM Pro or Eng BIM Coord applicant who has chosen to apply for CCBM or CCBC under the streamlined assessment, his/her application documents will be copied to CIC for streamlined assessment. Members need not submit a separate application to CIC for CCBM/CCBC, nor will they be required to undergo additional interviews by the CIC BIM Assessment Panel unless the documentary evidence is found to be unclear. CIC will notify the Eng BIM Pro/Eng BIM Coord directly upon approval by the CIC Building Information Modelling Certification and Accreditation Board (BIMCAB) to be CCBM/CCBC.
- ii) To avoid duplication in assessment, the approval/disapproval of Eng BIM Pro and CCBM, and Eng BIM Coord and CCBC respectively will be bundled, i.e., applicants will be approved/disapproved by HKIE as Eng BIM Pros or Eng BIM Coords with the same outcome of approval/disapproval of CCBMs or CCBCs respectively by the CIC BIM Certification and Accreditation Board (BIMCAB).
- iii) The application fee for Eng BIM Pro or Eng BIM Coord will cover the application fee required by CIC for CCBM or CCBC such that the candidate shall not be charged the application fee for CCBM/CCBC by CIC.
- iv) Renewal of CCBM/CCBC will be separately submitted to and processed by CIC. The renewal procedure, fee payment and any appeal in respect of the renewal of CCBM or CCBC will be handled by CIC directly.