



Environmental Integrity & Excellence

Hong Kong Institute of Qualified Environmental Professionals Limited (HKIQEP)
香港合資格環保專業人員學會有限公司 (香港環專會)

HKIQEP Air/Noise Modelling Professionals Certification Schemes: Schemes Details and Application Process

I. Scheme Background

Air and noise modelling is a significant component in the environmental impact assessment (EIA) and land use planning process in Hong Kong. To support and encourage professional development in this area, HKIQEP has developed and launched a certification scheme (the Scheme) to certify experienced and qualified air and noise modelling practitioners.

This Scheme:

- ♦ Recognizes the importance of air and noise modelling expertise;
- ♦ Identifies qualified and competent persons with the appropriate knowledge and expertise to conduct air and noise modelling work;
- ♦ Encourages the engagement of certified modellers in the environmental impact assessment and land use planning processes, to allow a more effective and efficient completion of the required model work; and
- ♦ Provides a platform for knowledge exchange and development between air and noise modelling professionals in Hong Kong.

The Scheme is composed of two parts:

- 1) Assessment of a candidate's in-depth understanding and practical experience of air/noise modelling systems, and
- 2) Ongoing continuing professional development (CPD) to ensure modelling professionals maintain and advance their knowledge and expertise

CPD requirements will be similar to those for HKIQEP Professional Membership and may include additional optional and/or compulsory update workshops from time to time.

Candidates who have passed the certification may use "HKIQEP Certified Professional – Air Modelling (CAM)" or "HKIQEP Certified Professional – Noise Modelling (CNM)" on their business materials.



II. Scheme Requirements

Under the Scheme, the basic requirement for both air and noise modelling professionals is TWO YEARS (twenty-four months) relevant experience in modelling work and HKIQEP Associate Membership (or higher).

Additionally, air and noise modelling professionals interested in the Scheme must possess sound knowledge in areas described in the Air Modelling Professional Syllabus and Noise Modelling Professional Syllabus, which are summarized below. Interested parties are advised to study in detail the contents in each syllabus.

Air and noise modelling practitioners who meet the stated requirements are welcomed to apply. Applicants are advised to provide as much detail as possible on the application form and their CV. The requirements for the CV are listed on the application form.

AIR

Air modelling professionals are expected to have a clear understanding of the type and scale of air pollution problems, the extensiveness of emission sources to be covered, their atmospheric dispersion, and photochemical transformation characteristics. They must demonstrate the capability to select appropriate model distinguished on the basis of criteria such as the underlying physical concepts, the temporal and spatial scale, type of source, type of component, and type of application. Air modelling professionals should also have an understanding of the errors and uncertainties inherent in the simulation results, the methodology for model performance evaluation, and the application of monitoring and modelling integration techniques.

Persons interested in becoming a Certified Air Modelling Professional must have sound knowledge and experience in the following Core Areas:

1. Emission estimation and implementation
 - ◆ Power plants, incinerators, boilers, diesel generators, concrete batching plants & other industrial emission sources (e.g., tar and bitumen works, aluminium works, organic chemical works)
 - ◆ Landfill, refuse transfer station, and sewage treatment works (including odourous gas)
 - ◆ Vehicle emission
 - ◆ Construction site emission
2. Air quality model simulation and application
 - ◆ Application of Gaussian Dispersion Model

In addition to the Core Areas specified above, interested persons should be knowledgeable in the following areas:

1. Emission estimation and implementation
 - ◆ Marine and/or aircraft emission
 - ◆ Other emissions
2. Air quality model simulation and application



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- ◆ Regional/background air quality simulation
- ◆ Street canyon air quality simulation
- ◆ Indoor/semi-indoor air quality simulation
- ◆ Air quality forecasting
- ◆ Application of Box, Pull, and/or Physical Model

NOISE

Noise modelling professionals are expected to be experienced and well versed in typical environmental noise components and attributes for road traffic noise, construction noise, and different types of fixed noise sources. They must be knowledgeable in noise emission and propagation concepts and noise mitigation measures.

Persons interested in becoming a Certified Noise Modelling Professional must have sound knowledge and experience in the following Core Areas:

- ◆ Road traffic noise
- ◆ Construction noise
- ◆ Fixed noise source

In addition to the three Core Areas above, interested persons should be knowledgeable in the following areas:

- ◆ Railway noise
- ◆ Aircraft noise
- ◆ Helicopter noise
- ◆ Noise mapping

III. Certification Examination

Applicants are assessed via a 2-hours closed-book multiple choice examination in two sections – Core and General. All questions in the Core section must be answered correctly to pass the examination. Questions in the General section contribute to the overall score.

The following describes the Pass/Fail scenarios:

1. All Core questions correct → Overall Pass/Fail depends on General section score
2. One or more Core questions incorrect → Overall Fail regardless of General section result

IV. Application Requirements and Certification Process

Basic prerequisites for application:

Academic	Same requirements as that for HKIQEP Professional Member (i.e., HKIQEP accredited degrees or equivalent as accepted by HKIQEP)
Employment *	At least 2 years (24 months) relevant work experience in air or noise modelling work
Membership	Must be Associate, Professional, or Fellow Member of HKIQEP prior to the award of Certification

** If a research post-graduate degree is used to claim work experience, the applicant must still have at least 12 months of relevant modelling work experience as a practitioner.*

Application period: 14 September ~ 13 October 2023

Examination dates: 04 November 2023 (AM) – Air Modelling Certification
04 November 2023 (PM) – Noise Modelling Certification

Examination time and venue to be confirmed.

The key steps of the application process are outlined below:

1. The application form can be downloaded from <https://hkiqep.org/certified-air-noise-modelling-professional/>. The instructions for completing the application are on the last few pages of the form.
2. Applicants who are not current members of HKIQEP must apply for Associate Membership in parallel with this application. Note that Certification will not be granted until Associate Membership (or higher) is achieved.
3. The application package must be uploaded via the online link at [insert link]. Required documents are:
 - ◆ Completed and signed application form
 - ◆ Detailed Curriculum Vitae
 - ◆ Relevant supporting documents – refer to the instructions provided on the application form
 - ◆ Application fee payment record
4. Initial vetting based on the submitted application package and the Scheme criteria will be completed within 14 days from the receipt of the application package.
5. Applicants who passed the initial vetting will receive an email with the details for the examination at least 10 days prior to the examination date.
6. Candidates will be notified of the results of their examination by email before the end of December 2023.



V. Fees Schedule

The fees structure for the Scheme is as follows:

FEES SCHEDULE	FEE	PAYMENT DUE
Application Fee	HK \$500	Before submitting application for Air/Noise Modelling Professional Certification
Examination Fee	HK \$2,000	Upon confirmation that applicant has met all requirements
Annual Subscription for Air/Noise Modelling Professional	HK \$800	Upon confirmation of Professional Certification

1. All fees are non-refundable.
2. Payment to be made directly to the following:
Bank name: HSBC
Account name: Hong Kong Institute of Qualified Environmental Professionals Limited
Account number: 848-718524-001
3. The applicant's name and Membership Number must be clearly written on the payment receipt.

VI. Contacts and Reminders

Please contact us at certification@hkiqep.org if you have any questions.

Useful links:

HKIQEP website: <http://www.hkiqep.org>

Other HKIQEP contact: general@hkiqep.org

Reminders:

1. All announcements and communications will be made through email. No postal mail will be sent.
2. To avoid emails from being dropped to their spam folders or blocked by their server, applicants are advised to add our email address to their address book.
3. General notices will be posted on the HKIQEP website.