



INSTITUTE OF MATERIALS, MALAYSIA

VIBRATION

COMPETENCY CERTIFICATION SCHEME

27 July 2022

Approved by Examination and Certification Panel

1. INTRODUCTION

This brochure serves as a guide for obtaining the Institute of Materials, Malaysia (IMM) Vibration assessment and certification. It is designed to satisfy the requirements of the oil and gas exploration and production (EP) industry, energy, marine, manufacturing and other industries for formally assessed and certified vibration practitioners in accordance with ISO 18436-2 and Oil and Gas industry standards.

The quality of vibration analysis and condition monitoring depends to a very large extent on the quality of the people who carry it out. It does not matter how good the monitoring equipment is or even how committed management is, the program will fall unless it is run by capable and dedicated people. What can be done to ensure the availability of capable and dedicated people? A professional certificate with performance objectives will be the answer.

There are four categories of Vibration certification:

- Certified Vibration Practitioner Category 1
- Certified Vibration Practitioner Category 2
- Certified Vibration Specialist Category 3
- Certified Vibration Specialist Category 4

Reference standards (reference used shall refer to the latest published document):

- ISO 18436-2: Condition Monitoring and Diagnostics of Machines - Requirements for Qualification and Assessment of Personnel - Part 2: Vibration Condition Monitoring and Diagnostics

2. WHO SHOULD ATTEND

- i. Certified Vibration Practitioner Category 1
 - Engineers, supervisors, inspections and technicians who wish to pursue a career as an IMM Certified Vibration Practitioner.
- ii. Certified Vibration Practitioner Category 2
 - Technicians, supervisors, engineers or anyone who passed IMM Certified Vibration Practitioner Category 1 and is interested to upgrade his/her knowledge and career in vibration conditioned monitoring and analysing.
- iii. Certified Vibration Specialist Category 3
 - Technicians, supervisors, engineers or anyone who passed IMM Certified Vibration Practitioner Category 2 and is interested to upgrade his/her knowledge and career in vibration conditioned monitoring and analysing.

- iv. Certified Vibration Specialist Category 4
- Technicians, supervisors, engineers or anyone who passed IMM Certified Vibration Practitioner Category 3 and is interested to upgrade his/her knowledge and career in vibration conditioned monitoring and analysing.

3. EXAMINATION AND ASSESSMENT

The candidate will be assessed by IMM on their competency as follows:

Certified Vibration Practitioner Category 1

A 2-hour theory examination will be conducted and consist of 60 multiple choice questions.

The criteria for competency is that the candidate must pass the examination with a minimum mark of 70%.

Certified Vibration Practitioner Category 2

A 3-hour theory examination will be conducted and consist of 110 multiple choice questions.

The criteria for competency is that the candidate must pass the examination with a minimum mark of 70%.

Certified Vibration Specialist Category 3

TBA

Certified Vibration Specialist Category 4

TBA

Assessment schedule

TBA

The above assessments may be held at an Authorised Testing Centre (ATC) or immediately following the related training course conducted by Associate Training Partner (ATP)/Authorised Training Centre (ATB).

4. LANGUAGE

The lectures and assessments will be conducted in English or Bahasa Malaysia or local dialects (where possible).

5. CERTIFICATE OF COMPETENCY AWARDED

The certificate awarded for each category are as follows:

- IMM Certified Vibration Practitioner Category 1
- IMM Certified Vibration Practitioner Category 2
- IMM Certified Vibration Specialist Category 3
- IMM Certified Vibration Specialist Category 4

6. VALIDITY OF CERTIFICATION

5 years; qualified candidate must register as an IMM member for the certification period of 5 years.

7. CANDIDATE'S CRITERIA

Certified Vibration Practitioner Category 1

Candidate should have

- Minimum academic qualification - SPM or equivalent* with at least credit in English and Mathematics

*Candidate fulfils the minimum academic qualification but without experience in vibration-related field is considered as a candidate without experience.

Certified Vibration Practitioner Category 2

Candidate should have

- IMM Certified Vibration Practitioner Category 1 and with at least 6 months working experience in vibration monitoring.

Certified Vibration Specialist Category 3

Candidate should have

- IMM Certified Vibration Practitioner Category 2 and with at least 6 months working experience in vibration monitoring

Certified Vibration Specialist Category 4

Candidate should have

- IMM Certified Vibration Practitioner Category 3 and with at least 24 months working experience in vibration monitoring

Candidate without experience is required to attend IMM approved/recognized training courses which prepares and provides comprehensive guidance and practice aligned to the topics covered in the examination.

Candidate with experience is encouraged to attend IMM approved/recognized training courses.

8. RESIT OF EXAMINATION

A candidate who had failed in one or more of the examination parts can apply to re-sit for the failed component(s) of the examination within a year from the date of the last examination. The candidate shall have to pay the full examination fee for the re-sit and without the need to attend any pre-requisite training course.

9. RE-CERTIFICATION

All certified IMM Vibration Practitioner or Specialist can apply for re-certification before the expiry of their certification period.

6 months prior to the expiry of certification (at the end of the 5th year of certification), the candidate can apply for re-certification for another 5 years by

- providing proof to IMM that he/she has been employed in a related profession; and
- accumulating sufficient Continuing Professional Development (CPD) points*.

Prior to the expiry of the 5-year re-certification (at the end of the 10th year of certification), the candidate can continue to be certified for a further 5-year period by

- providing proof to IMM that he/she has been employed in a related profession
- accumulating sufficient CPD points*; and
- attending the relevant Refresher Course for certification (if any).

The candidate must re-sit the certification examination if he/she has been out of the profession for more than 18 months continuously during the 5-year certification or re-certification period.

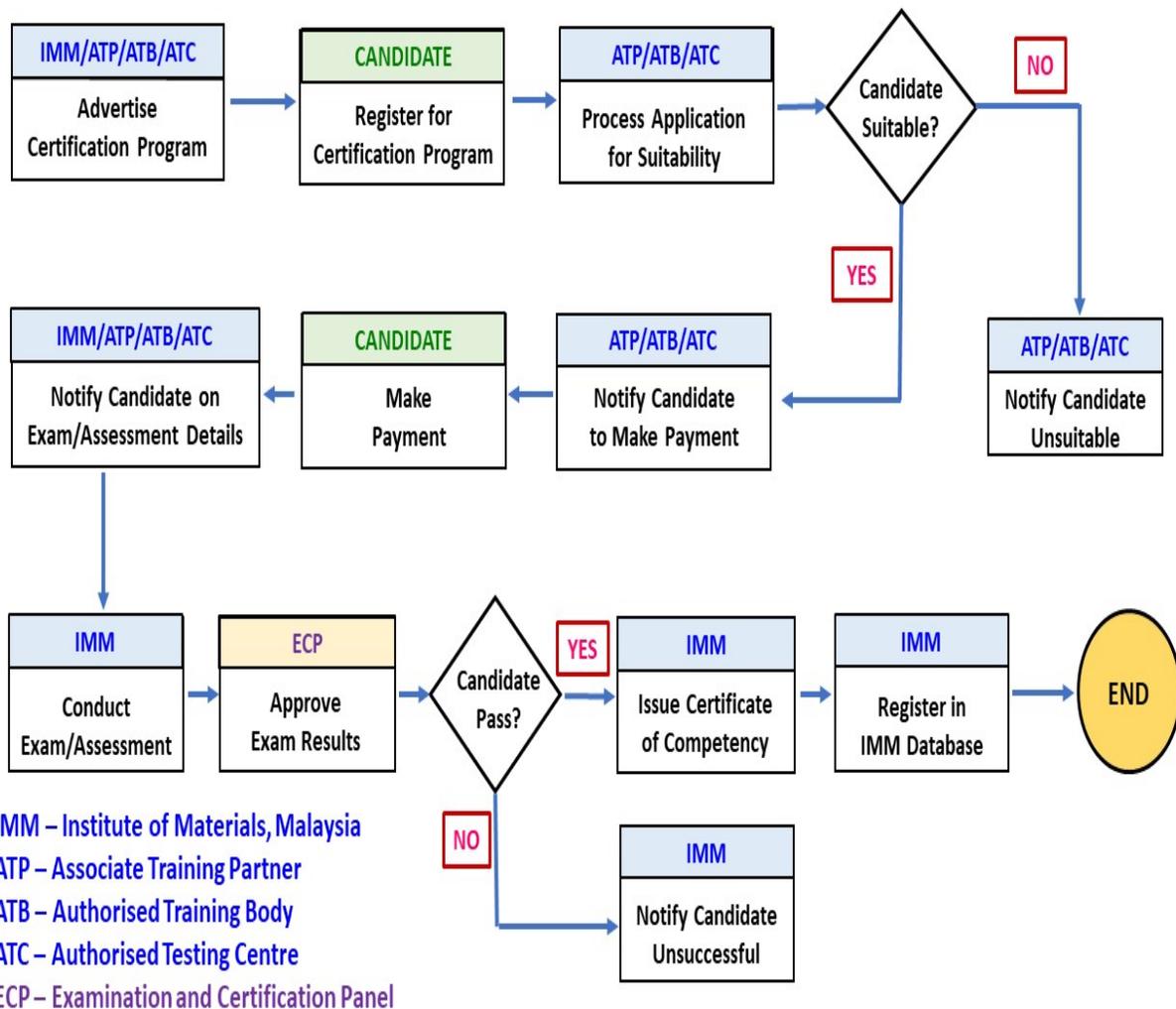
** The minimum number of CPD Points to be accumulated over a 5-year period shall be 100 points with an annual requirement of at least 10 points.*

10. TRAINING

Although this assessment program is intended for only experienced vibration practitioner or specialist, the candidate is strongly encouraged to attend IMM approved/recognized training courses of 4 - 5 more days to refresh themselves before attending the examination program by IMM. The IMM approved training courses are conducted by IMM certified trainers through IMM Authorised Training Body (ATB) or Associate Training Partner (ATP). Nevertheless, a prior training program for experienced vibration practitioner or specialist is not compulsory.

The **pre-assessment briefing and theory examination** will be conducted by IMM certified trainers/examiners through IMM ATP(s), ATB(s) or ATC(s) throughout Malaysia. Each session will be limited to 20 candidates.

11. FLOW CHART FOR THE CERTIFICATION PROCESS



Note: more details on ATB(s), ATP(s) and ATC(s) can be extracted from IMM website, <https://www.iomm.org.my>.

12. EXAMINATION TOPICS

The topics for assessment in terms of the knowledge and skills needed by candidate include the following:

Certified Vibration Practitioner Category 1

- Introduction to condition monitoring
- Maintenance programs
- Condition monitoring
- Condition-Based Maintenance (CBM)
- CBM procedure

Certified Vibration Practitioner Category 2

- Principles of vibration
- Data acquisition
- Signal processing
- Condition monitoring
- Fault analysis
- Correction action
- Equipment knowledge
- Reference standards
- Fault severity determination

Certified Vibration Specialist Category 3

- Principles of vibration
- Data acquisition
- Signal processing
- Condition monitoring
- Fault analysis
- Correction action
- Equipment knowledge
- Reference standards
- Fault severity determination

Certified Vibration Specialist Category 4

- Data acquisition
- Signal processing
- Condition monitoring
- Fault analysis & correct action
- Equipment testing & diagnostics
- Reference standards
- Reporting & documentations
- Fault severity determination
- Rotor/bearing dynamics



INSTITUTE OF MATERIALS, MALAYSIA

REGISTRATION FORM FOR CERTIFICATION EXAMINATION

* PLEASE COMPLETE THE FORM USING CAPITAL LETTERS

DATE OF APPLICATION : _____

CERTIFICATION SCHEME

SCHEME TITLE : _____ SCHEME CODE : _____

PARTICULARS OF CANDIDATE

PERSONAL INFORMATION

FULL NAME : _____

TITLE : _____ NRIC/PASSPORT NO. : _____

DATE OF BIRTH : _____ AGE : _____

CORRESPONDENCE ADDRESS : _____

MOBILE PHONE NO. : _____ HOUSE PHONE NO. : _____

EMAIL ADDRESS : _____

ACADEMIC QUALIFICATIONS

(Please provide complete information on your education background; additional sheet may be used if needed.)

QUALIFICATION	INSTITUTION	FIELD OF STUDY	GRADUATION YEAR

INFORMATION RELATING TO CURRENT IMM CERTIFICATION (IF ANY)

CERTIFICATION SCHEME : _____

COMPETENCY CERTIFICATE NO. : _____

CURRENT JOB INFORMATION

NAME OF COMPANY : _____
DESIGNATION/POSITION : _____
ADDRESS OF COMPANY : _____
OFFICE PHONE NO. : _____ WORK EMAIL : _____

WORKING EXPERIENCE

(Please provide complete information on the employment records in the related field; additional sheet may be used if needed.)

NAME OF COMPANY	POSITION	DURATION	JOB DESCRIPTION

FOR CANDIDATES WITH SPECIAL NEEDS

Do you require any assistance to accommodate your special needs during the examination session?

Yes Please specify the required assistance and reason for the request:

No

IMM MEMBERSHIP APPLICATION

MEMBERSHIP GRADE : Ordinary Others (Please specify): _____

SUBSCRIPTION PERIOD : 5 years Others (Please specify): _____ years
 Current member (Please specify IMM membership no.): _____

Note: Membership subscription will cover period of certification.

SUBMISSION OF SUPPORTING DOCUMENTS

- Copy of Identity Card/Passport
- Latest curriculum vitae (CV)
- Copy of certificate of highest academic qualification
- Copy of relevant competency certificate (if any)
- Copy of certificate of attendance to any relevant training course(s)
- Proof of payment
- Original letter from physician/relevant authority (for candidates with special needs)
- Others
Please specify : (1) _____
(2) _____

DECLARATION BY CANDIDATE

I, the undersigned, hereby:

- declare that, to the best of my knowledge, the information provided on this form is correct and complete and that all documents appended to this form for the submission of my application are genuine and the actual copy of the original documents;
- give my permission for my personal data to be processed by the Institute of Materials, Malaysia for personnel, administration and/or management purposes in accordance to the Personal Data Protection Act 2010 (Act 709) under the Laws of Malaysia and for my contact details to be made available to the public if required to due to legal matters upon a formal request by legal personnel;
- consent that the Institute of Materials, Malaysia may disclose any information obtained during the certification process, or from sources other than the applicant, candidate or certified person, to an unauthorized party for the purpose deemed necessary by the Institute of Materials, Malaysia and where the law requires such information to be disclosed;
- agree and understand that the Institute of Materials, Malaysia does not need to provide prior notification to me when there is a request or inquiry made about the status of my certification;

agree to comply with the certification requirements and to supply any supplementary documents or further information required based on the request made by personnel of the Institute of Materials, Malaysia for assessment purposes; and

understand that the remitted fee is non-refundable if I withdraw after my application has been accepted.

SIGNATURE :

FULL NAME :

NRIC/PASSPORT NO. :

DATE :

FOR OFFICE USE

SUITABILITY CHECKLIST

- Highest academic qualification
- Work experience in related field
- IMM's competency certification or equivalent
- Attended training or revision course(s)

DECISION ON SUITABILITY

YES NO (Please specify: _____)

Examination Date : _____

Examination Venue : _____

Reviewed by (on behalf of ECP),

Approved by (on behalf of ECP),

Name : _____

Date : _____

Name : _____

Date : _____

IMM Certification Number : _____

IMM Membership Number : _____



INSTITUTE OF MATERIALS, MALAYSIA

CONTINUING PROFESSIONAL DEVELOPMENT REPORT

NAME: YEAR:.....
 IMM MEMBERSHIP NO:..... CERTIFICATION NO:.....
 IMM CERTIFICATION:.....

CONTINUING PROFESSIONAL DEVELOPMENT (CPD) LOG
 (Supporting documents to be submitted wherever applicable)

Date or Period	Professional Development Activity Code & Description	Role	No. of Activity Hours	Weightage	No. of CPD Points
TOTAL					

Professional Development Activity Code	Professional Development Activity Scope	Weightage Factor
A	Attend Online or Physical Training Courses/Workshops/Working Sub-Committee Activity on Development of Examinations and/or Training Courses	4
B	Online or Physical Course Trainer/Facilitator/Examiner/Conference Presenter	3
C	Attend Online or Physical Seminar/Conference/Webinar	2
D	Paper Author Main Author (max 30 hours/year) Co-author (max 10 hours/year)	2
E	Attend Online or Physical Committee Meeting	1

CPD Points per year : **10 points minimum.**
 CPD Points per 5 year for re-certification : **100 points.**

Year						Total CPD Points
CPD Points						

I hereby declare that the information and particulars provided by me in this form is true and correct.

.....
 (Signature)

.....
 (Date)