COURSE OVERVIEW RE0804
Vibration Analyst Category: Category III (Mobius Institute)

Course Title
Vibration Analyst Category: Category III (Mobius Institute)

Course Date/Venue
Session1: September 06-10, 2026/Crowne Meeting Room, Crowne Plaza Al Khobar, an IHG Hotel, Al Khobar, KSA
Session 2: December 13-17, 2026/Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE

Course Reference
RE0804

Course Duration/Credits
Five days/30 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

Condition monitoring has evolved as a significant opportunity to increase profits within a wide variety of industries. Vibration Analysis is one of the most powerful condition-based maintenance technologies, and the cornerstone of many predictive maintenance programs. It is also widely utilized for troubleshooting and fault diagnosis of machinery and structures. In recent years, much emphasis has been given to on-line or permanently installed vibration monitoring for machinery that is inaccessible, critical to process, and/or very expensive.

This course is designed to provide participants with a detailed and up-to-date overview of ISO Vibration Level III in accordance with ISO 18436. It covers the condition monitoring and ISO standards; the signal processing, data acquisition, time waveform analysis and phase analysis; the natural frequencies and resonance; testing for natural frequencies, operating deflection shape (ODS) analysis and modal analysis; the FEA and correcting resonances; the journal and rolling element bearing fault detection and electric motor testing; the pumps, fans and compressors; the gearbox fault detection and corrective action; running a successful CM program; and the acceptance testing and ISO standards.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Get prepared for the next Vibration Analyst exam and have enough knowledge and skills to pass such exam in order to get certified as "*Vibration Analyst: Category III"* in accordance with ISO 18436 standards from Mobius Institute
- Carryout condition monitoring and discuss ISO standards
- Employ signal processing, data acquisition, time waveform analysis and phase analysis
- Recognize natural frequencies and resonance as well as apply testing for natural frequencies, operating deflection shape (ODS) analysis and modal analysis
- Discuss FEA and correcting resonances
- Carryout journal and rolling element bearing fault detection and electric motor testing
- Identify pumps, fans and compressors as well as apply gearbox fault detection and corrective action
- Run a successful CM program, perform acceptance testing and review ISO standards

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of ISO Vibration Analysis Category III for those who are confident with spectrum analysis but wishes to push on and learn more about signal processing, time waveform and phase analysis, cross-channel testing, machine dynamics and fault correction. This includes maintenance, reliability, rotating equipment, process, control and instrumentation personnel, engineers, maintenance supervisors, mechanical foremen, specialists and other technical staff.

Exam Eligibility & Structure

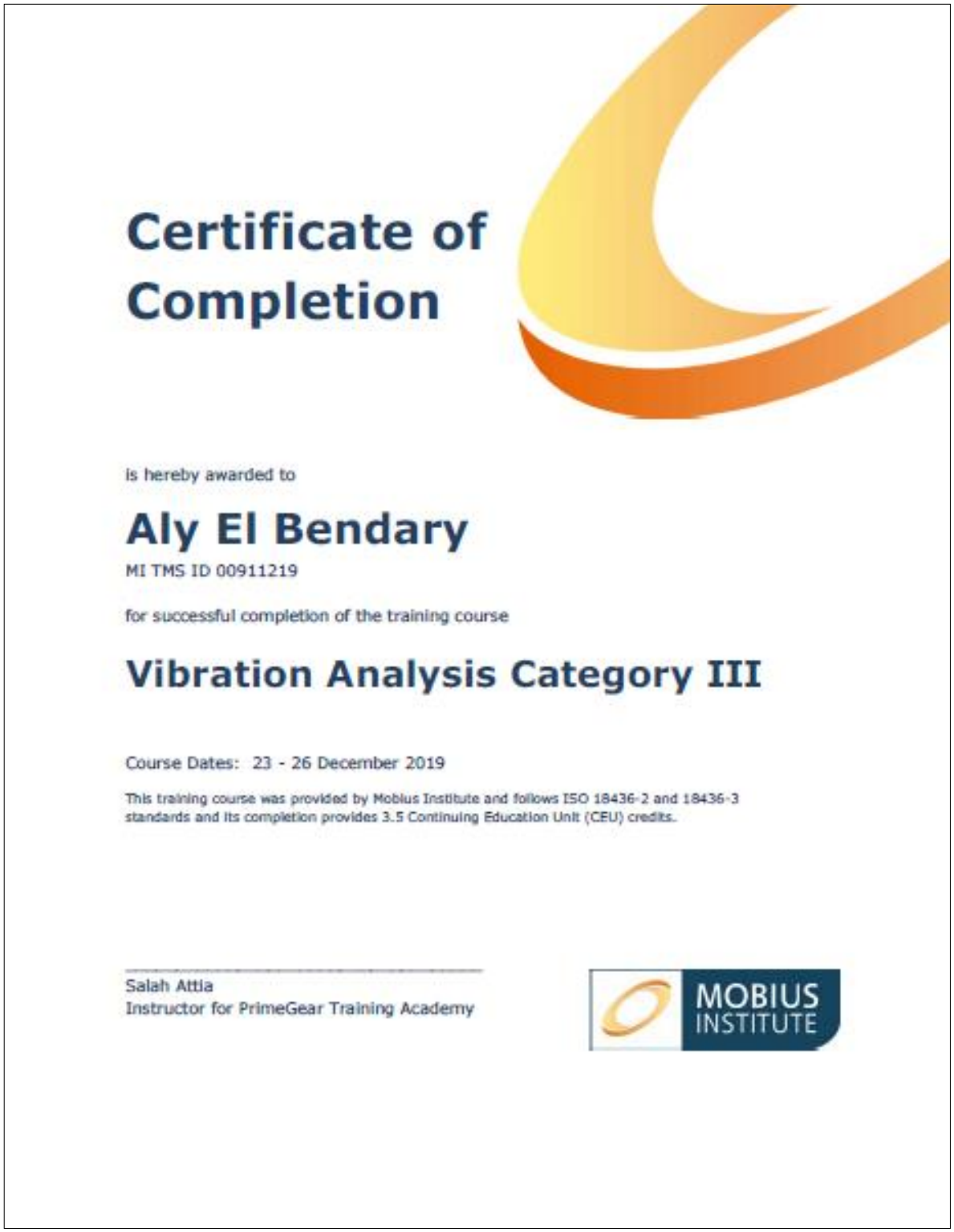
Exam candidates shall have the following minimum prerequisites:-

- Successfully completed two (2) or more years of mechanical technology or mechanical engineering at an accredited college, university or technical school
- Should be familiar with current VA technology
- Minimum 36 months of Vibration Analysis experience
- Must hold a Vibration Analyst Category II

**Candidates applying for certification at Category III only, who have at least 60 months of verifiable vibration analysis work experience, may apply as mature candidates, allowing them to bypass (at MIBoC's discretion) the requirement of have obtained previous certification at Category III*

Course Certificate(s)

(1) Internationally recognized certificates will be issued to all participants of the course.



Certificate of Completion

is hereby awarded to

Aly El Bendary

MI TMS ID 00911219

for successful completion of the training course

Vibration Analysis Category III

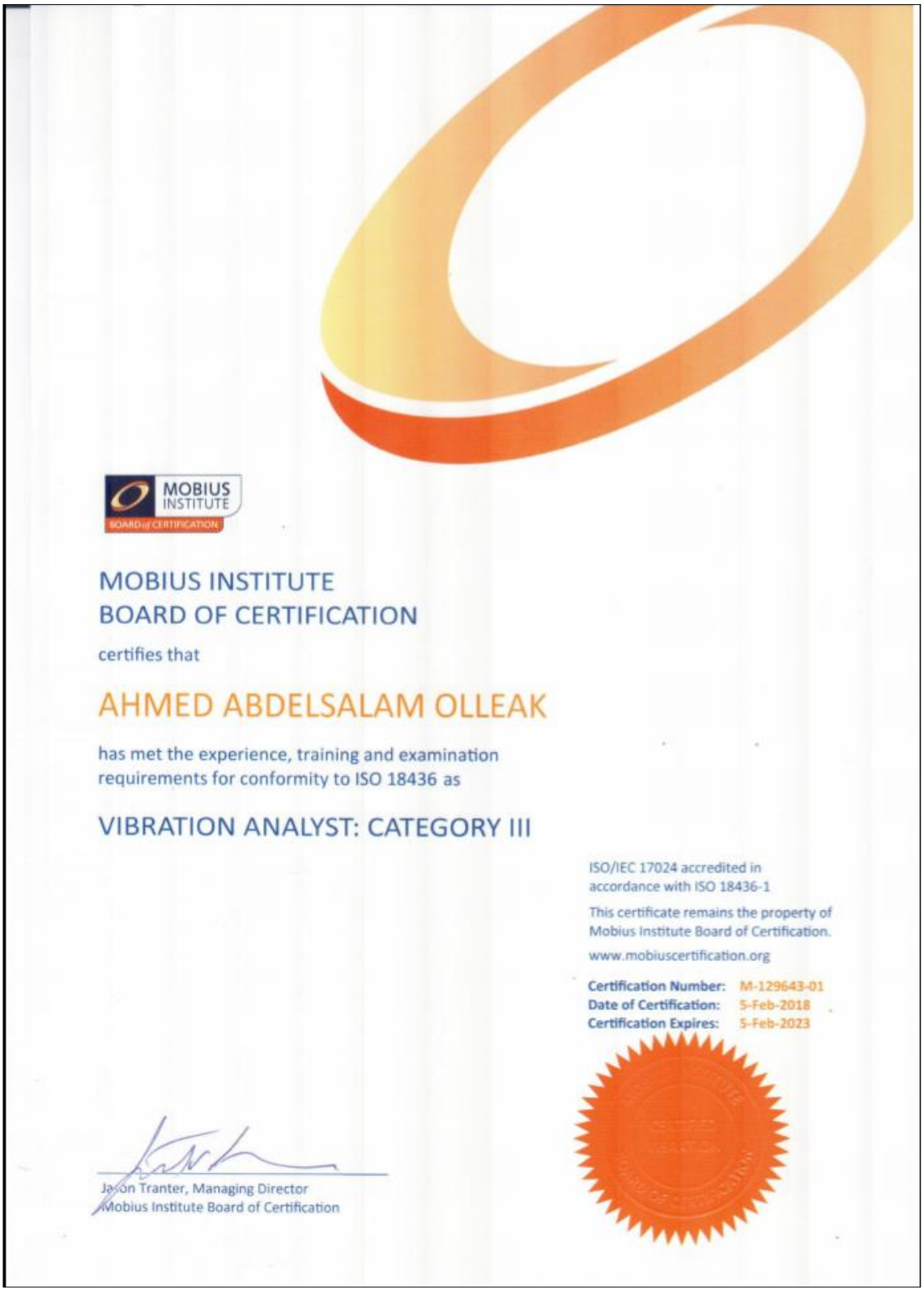
Course Dates: 23 - 26 December 2019

This training course was provided by Mobius Institute and follows ISO 18436-2 and 18436-3 standards and its completion provides 3.5 Continuing Education Unit (CEU) credits.

Salah Attia
Instructor for PrimeGear Training Academy

MOBIUS INSTITUTE

(2) Mobius Institute will certify the participants who will pass the examination for ***Vibration Analyst: Category III***.



MOBIUS INSTITUTE
BOARD of CERTIFICATION

MOBIUS INSTITUTE
BOARD OF CERTIFICATION

certifies that

AHMED ABDELSALAM OLLEAK

has met the experience, training and examination requirements for conformity to ISO 18436 as

VIBRATION ANALYST: CATEGORY III

ISO/IEC 17024 accredited in accordance with ISO 18436-1

This certificate remains the property of Mobius Institute Board of Certification.

www.mobiuscertification.org

Certification Number: M-129643-01
Date of Certification: 5-Feb-2018
Certification Expires: 5-Feb-2023

Jason Tranter, Managing Director
Mobius Institute Board of Certification

(3) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology

Haward Technology Middle East
Continuing Professional Development (HTME-CPD)

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CEU Official Transcript of Records

TOR Issuance Date: 22-Aug-19

HTME No. 8667-2014-9020-2547

Participant Name: Ismail Al Hammadi

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
RE0804-IH	ISO Vibration Certification Level III (CAT III-ISO 18436) *(Training, Exam & Certification)*	August 18-22, 2019	32.5	3.25

Total No. of CEU's Earned as of TOR Issuance Date **3.25**

TRUE COPY

Maricel De Guzman
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2013 Standard.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | Fax: +971 2 3091 716 | E-mail: info@haward.org | Website: www.haward.org

Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations: -

- Mobius Institute Board of Certification (MIBoC) Scheme

  Mobius Institute Board of Certification (**MIBoC**) is ISO/IEC 17024 and ISO 18436-1 accredited and provides globally recognised certification for Vibration Analysis, Infrared Thermography, Ultrasound and Asset Reliability. MIBoC is an impartial and independent entity that is directed by scheme and technical committees to ensure that its certification meets or exceeds the requirements defined by the applicable ISO standards. Haward Technology is a partner of various Mobius Training Partners.

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Mr. Khaled Ibrahim, BSc, APR-E, ARP-A, VA, is a **Senior Mechanical Engineer** and **Asset Management Specialist** with over extensive years of industrial experience within the **Oil & Gas**, **Refinery** and **Petrochemical** industries. His expertise widely covers in the areas of **Condition Monitoring & Asset** Management, **Asset Reliability & Lubrication**, **RBI** Assessment, AIV & FIV, **Vibration** Techniques, Advanced **Vibration** Analysis, **Acoustic & Flow Induced Vibration**, **Thermal Imaging** Technology, **Precision Machinery Alignment**, **Laser Alignment**, Machinery Balancing, Criticality Assessment, **FMEA**, **Root Cause** Analysis, Defect Elimination, **Ultrasound** Technology, Design Engineering System, Protection & Monitoring System, **Static** Equipment, **Static Risk** Assessment, Baseline Survey Analysis, **Machinery** Maintenance, **Shutdown & Turnaround**, **Thermal Imaging**, Oil Testing & Analysis, Borescope Inspection, Rockwell Automation, Azima, IT Concept, Metric Vibration, CTC Sensors, Artesis MCSA, Pipeline Corrosion Loops, Offshore Safety Induction & Emergency, Energy & Waste Management and BOSIET/OPITO. Currently, he is the **Business Development Manager** wherein he is in-charge of developing market and spreading awareness of asset management solutions in MENAT region.

During his career life, Mr. Khaled has gained his practical and field experience through his various significant positions and dedication as the Asset Manager, **Technical Services Manager**, **Senior Condition Monitoring Consultant**, **Condition Monitoring Team Leader**, **Senior Rotating Engineer** and **Senior Instructor/Trainer** for numerous multi-billion companies including the UDPS, KMT, Veolia, PROACT Engineering, PETROFAC and PETROMAINT.

Mr. Khaled has a **Bachelor's** degree in **Power Mechanical Engineering**. Further, he is a **Certified Asset Reliability Practitioner ARP-E & ARP I&II** from the **Mobius Institute**, Certified Level 1 Machinery Lubrication Analyst (**MLA-1**), Certified **ISO Vibration Level IV** Global Instructor, Certified Level 1 Ultrasound, Certified Reliability Leader (**CRL**), Certified Basic Offshore Safety Induction & Emergency BOSIET and Certified **ISO ARP-A** Global Instructor. He has further delivered numerous trainings, courses, seminars, conferences and workshops internationally.

Course Fee

US$ 9,250 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 1030	***Condition Monitoring & ISO Standards***
1030 – 1045	*Break*
1045 – 1130	***Signal Processing & Data Acquisition***
1130 – 1330	***Time Waveform Analysis***
1330 – 1345	*Break*
1345 – 1420	***Phase Analysis***
1420 – 1430	***Recap***
1430	*End of Day One*

Day 2

0730 – 0930	***Natural Frequencies & Resonance***
0930 – 0945	*Break*
0945 – 1230	***Testing for Natural Frequencies***
1230 – 1245	***Operating Deflection Shape (ODS) Analysis***
1245 – 1300	*Break*
1300 – 1420	***Modal Analysis & Introduction to FEA***
1420 – 1430	***Recap***
1430	*End of Day Two*

Day 3

0730 – 0930	***Correcting Resonances***
0930 – 0945	*Break*
0945 – 1230	***Journal Bearing Fault Detection***
1230 – 1245	***Electric Motor Testing***
1245 – 1300	*Break*
1300 – 1420	***Rolling Element Bearing Fault Detection***
1420 – 1430	***Recap***
1430	*End of Day Three*

Day 4

0730 – 0930	***Pumps, Fans & Compressors***
0930 – 0945	*Break*
0945 – 1230	***Gearbox Fault Detection***
1230 – 1245	***Corrective Action***
1245 – 1300	*Break*
1300 – 1420	***Corrective Action (cont'd)***
1420 – 1430	***Recap***
1430	*End of Day Four*

Day 5

0730 – 0830	***Running a Successful CM Program***
0830 – 0845	*Break*
0845 – 0915	***Acceptance Testing***
0915 – 0945	***Review of ISO Standards***
0945 - 1000	*Break*
1000 – 1400	***Mobius COMPETENCY EXAM (4 Hours)***
1400 – 1415	***Course Conclusion***
1415 – 1430	*Presentation of Course Certificates*
1430	*End of Course*

Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the state-of-the-art simulator "iLearnVibration".

iLearnVibration Simulator

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org