Haward Technology Middle East

COURSE OVERVIEW IE1052
Competency in Explosive Atmospheres (IEC-Ex Equipment)

Course Title
Competency in Explosive Atmospheres (IEC-Ex Equipment)

Course Reference
IE1052

3.0 CEUs (30 PDHs) AWARD

H-STK© INCLUDED

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Date/Venue

Session(s)	Date	Venue
1	September 02-06, 2024	Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
2	December 15-19, 2024	Club B Meeting Room, Ramada Plaza by Wyndham Istanbul City Center, Istanbul, Turkey

Course Description

This practical and highly-interactive course includes various practical sessions and exercises. Practical sessions will be performed in a state-of-the-art CompEx laboratory.
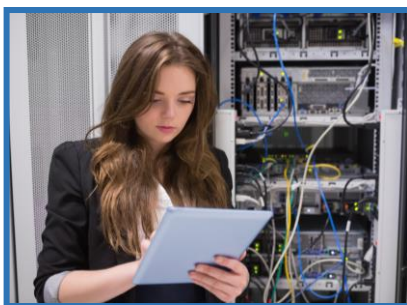
This course is designed to provide participants with a detailed and up-to-date overview of explosive atmospheres (IEC-Ex Equipment). It covers the basic requirements of explosion protection, the HSE requirements, regulations and responsibilities; the Ex terms, definitions, classification and zones; the gas groups, temperature classes and Ex markings; the safe work methods in hazardous areas; and the Ex protection techniques including selection and installation requirements.

During this interactive course, participants will learn the requirements for cables and terminations; testing and using of measurement equipment in a systematic manner; glanding of non-armored cables, armored and barrier glands; the documentation requirements and safe work methods in hazardous areas; the Ex protection techniques covering maintenance and inspection requirements; and the installation, testing, maintenance, visual, close and detailed inspection.

Course Objectives

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

- Get certified in IECEX equipment Ex 001, 003, 004, 006, 007 & 008

- Identify the basic requirements of explosion protection including the HSE requirements, regulations and responsibilities

- Discuss the Ex terms, definitions, classification and zones

- Recognize the gas groups, temperature classes and Ex markings

- Apply the safe work methods in hazardous areas as well as the Ex protection techniques including selection and installation requirements

- Identify the requirements for cables and terminations as well as test and use the measurement equipment in a systematic manner

- Discuss glanding of non-armored cables, armored and barrier glands

- Identify documentation requirements and apply safe work methods in hazardous areas

- Carryout Ex protection techniques covering maintenance and inspection requirements

- Perform installation, testing, maintenance, visual, close and detailed inspection

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, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of explosive atmospheres for experienced engineers/technicians and for electrotechnical and craftsperson who need to develop and demonstrate their competency in the selection, installation, inspection and maintenance of electrical and mechanical equipment and apparatus in explosion-hazardous atmospheres, through an internationally accredited, certificated competency validation scheme.

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 Certificate(s)

(1) IECEx Certification of Personnel Competency will be issued to candidates who have successfully passed the course and successfully completed the practical and theoretical assessment.

IECEx Certificate Personnel Competence

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx CP TSI21.0021**	Issue No:	**0**
Status:	**Current**	Date of Original issue:	**2021-02-12**
Applicant:	**BALCI GAMZE** **Turkey**	Date of Expiry:	**2026-02-12**

Scope of Competence:
(Units according to IECEx OD 504)

Ex 001 - Apply basic principles of protection in explosive atmospheres

Ex 002 - Classification - Based on IEC 60079-10 series

Ex 003 - Installation - Based on IEC 60079-14

Ex 004 - Maintenance - Based on IEC 60079-17

Ex 006 - Testing of installations - Based on IEC 60079-14

Ex 007 - Visual & Close Inspection - Based on IEC 60079-17

Ex 008 - Detailed Inspection - Based on IEC 60079-17

Ex 009 - Design Electrical Installations - Based on IEC 60079-14

Ex 010 - Audit Inspection - Based on IEC 60079-17

For Detailed information on Scope Application and any Limitations in accordance with IECEx OD 504 click on PCAR Number below:

PCAR Reference Number:

AU/TSI/PCAR21.0021/00

This certificate is issued as verification that the Applicant was assessed and found to comply with the IECEx CoPC Scheme requirements, relating to the scope of Competence and referenced Standards listed above. This certificate is granted subject to the conditions as set out in IECEx CoPC Scheme Rules, IECEx 05 as amended.

Approved for issue on behalf of the IECEx Certification Body:	**Lel Cai**
Position:	**Certification Manager**
Signature: (for printed version)	
Date:	

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Tech Skills International
Unit 18
Whyalla Street
Willetton, Western Australia 6155
Australia

Tech Skills International

IECEx Personnel Competence Assessment Report Summary

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

PCAR Ref. No.: **AU/TSI/PCAR21.0021/00**		Page 1 of 1
PCAR Free Ref. No.: **AU/TSI/PCAR21.0021/00**		Status: **Issued**

Applicant name:	Applicant Country:	Applicant employer:
BALCI GAMZE	**Turkey**	

Date of Original issue:	Date of Issue of this PCAR:	Due Date of re-certification:
2021-02-12	**2021-02-12**	**2026-02-12**

Related PCARS:

Related IECEx Certificates:

IECEx CP TSI21.0021 issue: 0

Issuing ExCB: TSI - Tech Skills International

Units of Competence (According to OD 504):
Ex 001 - Apply basic principles of protection in explosive atmospheres
Ex 002 - Classification - Based on IEC 60079-10 series
Ex 003 - Installation - Based on IEC 60079-14
Ex 004 - Maintenance - Based on IEC 60079-17
Ex 006 - Testing of installations - Based on IEC 60079-14
Ex 007 - Visual & Close Inspection - Based on IEC 60079-17
Ex 008 - Detailed Inspection - Based on IEC 60079-17
Ex 009 - Design Electrical Installations - Based on IEC 60079-14
Ex 010 - Audit Inspection - Based on IEC 60079-17

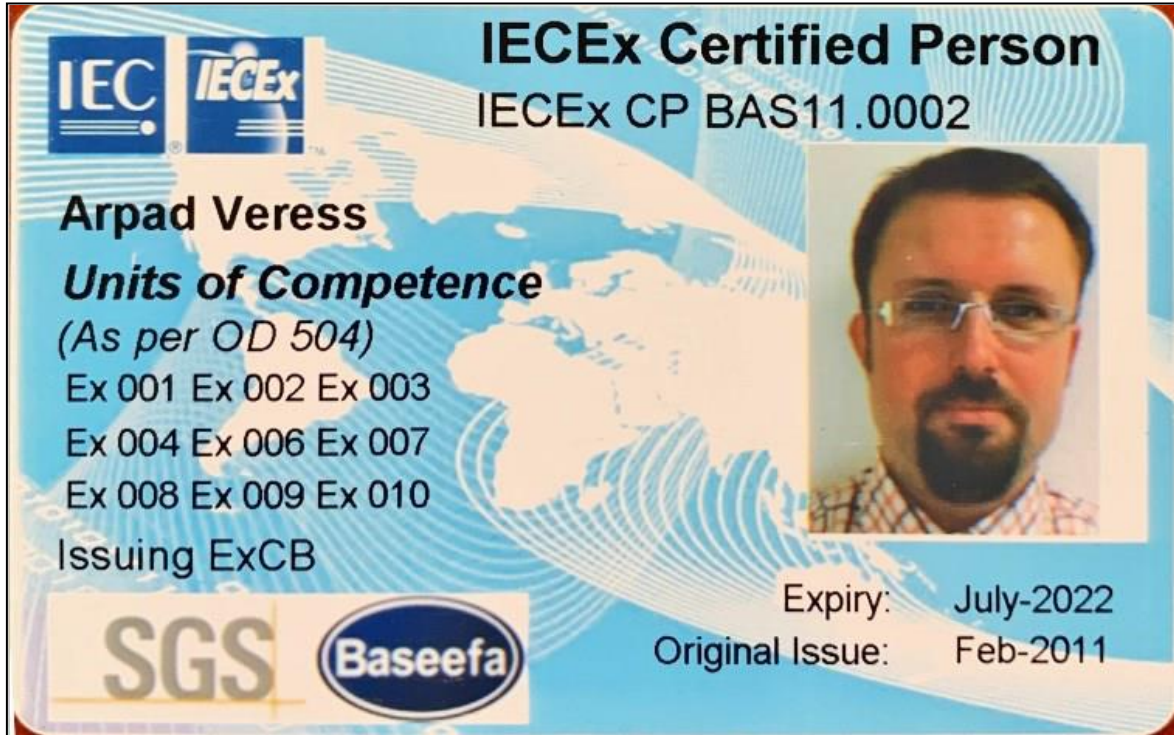List of standards: Area Classification according to IEC 60079-10

Inspection according to IEC 60079-17

Installations according to IEC 60079-14

Language used for assessment: English

Limitations (According to OD 504): N/A

Comments:

IECEx Certified Person
IECEx CP BAS11.0002

Arpad Veress
Units of Competence
(As per OD 504)
Ex 001 Ex 002 Ex 003
Ex 004 Ex 006 Ex 007
Ex 008 Ex 009 Ex 010
Issuing ExCB

SGS   Baseefa

Expiry: July-2022
Original Issue: Feb-2011

(2) 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 Middle East
Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

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TOR Issuance Date: 14-Oct-21

HTME No. 8667-2014-9020-2555

Participant Name: Abdulsatar Al Otaibi

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
IE1052	Competency in Explosive Atmospheres (IEC-Ex Equipment/CompEx)	November 10-14, 2021	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date   3.0

TRUE COPY

Maricel De Guzman
Academic Director

Haward Technology is accredited by

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.

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

Certificates are accredited by the following international accreditation organizations: -

- 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.

- British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. 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.

Accommodation

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

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. Shafaque Nasir, BSc, IECEx, is a **Senior Instrumentation & Control Engineer** with extensive years of experience within the **Oil & Gas**, **Refinery**, **Power** and **Utility** industries. His expertise widely covers in the areas of **Hazardous Area** Classification, **Explosive Atmosphere** Inspection, **Ex Instrument** Inspection, **CompEx** Installation, & Inspection, **Hazardous Area** Classification & Intrinsic Safety, **Explosion Proof Ex** Equipment, **Electrical Equipment** Inspection, **E&I** Installation, **Cable** Installation, **LV/MV Switchgear** Installation, **DC Batteries** Installation, **E-Modules** Installation, **Bus Duct** Installation, **Lighting & Grounding** Installation, **Field Instrument** Installation, **DCS & Control System** Installation, **E&I Supply**, **Installation**, **Wiring & Commissioning**, Inspection Test Plan (**ITP**), **Cable Trays**, **Cable Route Drawings**, **Cable Schedules**, **Tube & Fittings**, **Material Supply & Installation**, **Gas Analyzer**, **Instrument Junction Boxes**, **Motors**, **CompressorsCCTV & PA Systems**, **BMS Commissioning**, **Building Management Systems**, **Graphical User Interface** and **Fire Protection System**.

During his career life, he has gained his practical and field experience through his various significant positions as the the **Project Manager**, **Instrumentation Engineer** and **Junior Instrumentation Engineer** from various companies such as the IndEx, Emirates Electrical & Instrumentation Company (EEIC), Control & Applications Emirates (CAE) and Zicom Electronic Security Solutions Ltd.

Mr. Shafaque has a **Bachelor's** degree in **Instrumentation & Control Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified IECEx CP TS121.0116**, a **Certified ExAM Technician** and a **Certified Automation Engineer Diploma** (**PLC & SCADA Programming**). He has further delivered numerous trainings, seminars, courses, workshops and conferences internationally.

Course Fee

Abu Dhabi	**US$ 6,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Istanbul	**US$ 7,000** per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

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 – 0850	**Ex 001: Basic Requirements of Explosion Protection**
0850 – 0910	**Ex 001: HSE Requirements**
0910 – 0930	**Ex 001: Regulations & Responsibilities**
0930 – 0945	Break
0945 – 1030	**Ex 001: Ex Terms & Definitions**
1030 – 1115	**Ex 001: Classification**
1115 – 1215	**Ex 001: Zones**
1215 – 1230	Break
1230 – 1300	**Ex 001: Gas Groups**
1300 – 1340	**Ex 001: Temperature Classes**
1340 – 1420	**Ex 001: Ex Markings**
1420 – 1430	**Recap**
1430	Lunch & End of Day One

Day 2

0730 – 0830	**Ex 003 & 006: Safe Work Methods in Hazardous Areas**
0830 – 0930	**Ex 003 & 006: Ex Protection Techniques – Selection & Installation Requirements**
0930 – 0945	Break
0945 – 1100	**Ex 003 & 006: Requirements for Cables & Terminations**
1100 – 1215	**Ex 003 & 006: Testing & Use of Measurement Equipment**
1215 – 1230	Break
1230 – 1330	**Ex 003 & 006: Glanding – Non-Armored Cables, Armored & Barrier Glands**
1330 – 1420	**Ex 003 & 006: Documentation Requirements**
1420 – 1430	**Recap**
1430	Lunch & End of Day Two

Day 3

0730 – 0930	**Ex 004, 007 & 008: Safe Work Methods in Hazardous Areas**
0930 – 0945	Break
0945 – 1100	**Ex 004, 007 & 008: Ex Protection Techniques – Maintenance & Inspection Requirements**
1100 – 1215	**Ex 004, 007 & 008: Ex Protection Techniques – Maintenance & Inspection Requirements (cont'd)**
1215 – 1230	Break
1230 – 1420	**Ex 004, 007 & 008: Documentation Requirements**
1420 – 1430	**Recap**
1430	Lunch & End of Day Three

Day 4

0730 – 0830	*Practical Practice & Practical Assessment: Ex 003 - Installation*
0830 – 0930	*Practical Practice & Practical Assessment: Ex 006 – Testing*
0930 – 0945	*Break*
0945 – 1100	*Practical Practice & Practical Assessment: Ex 004 – Maintenance*
1100 – 1215	*Practical Practice & Practical Assessment: Ex 007 – Visual & Close Inspection*
1215 – 1230	*Break*
1230 – 1420	*Practical Practice & Practical Assessment: Ex 008 – Detailed Inspection*
1420 – 1430	*Recap*
1430	*Lunch & End of Day Four*

Day 5

0730 – 0830	*Theoretical Assessment: Ex 001 – Apply Basics*
0830 – 0930	*Theoretical Assessment: Ex 003 – Installation*
0930 – 0945	*Break*
0945 – 1100	*Theoretical Assessment: Ex 006 – Testing*
1100 – 1215	*Theoretical Assessment: Ex 004 – Maintenance*
1215 – 1230	*Break*
1230 – 1330	*Theoretical Assessment: Ex 007 – Visual & Close Inspection*
1330 – 1400	*Theoretical Assessment: Ex 008 – Detailed Inspection*
1400 – 1415	*Course Conclusion*
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions/Site Visit

Course Coordinator

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