Newsletter
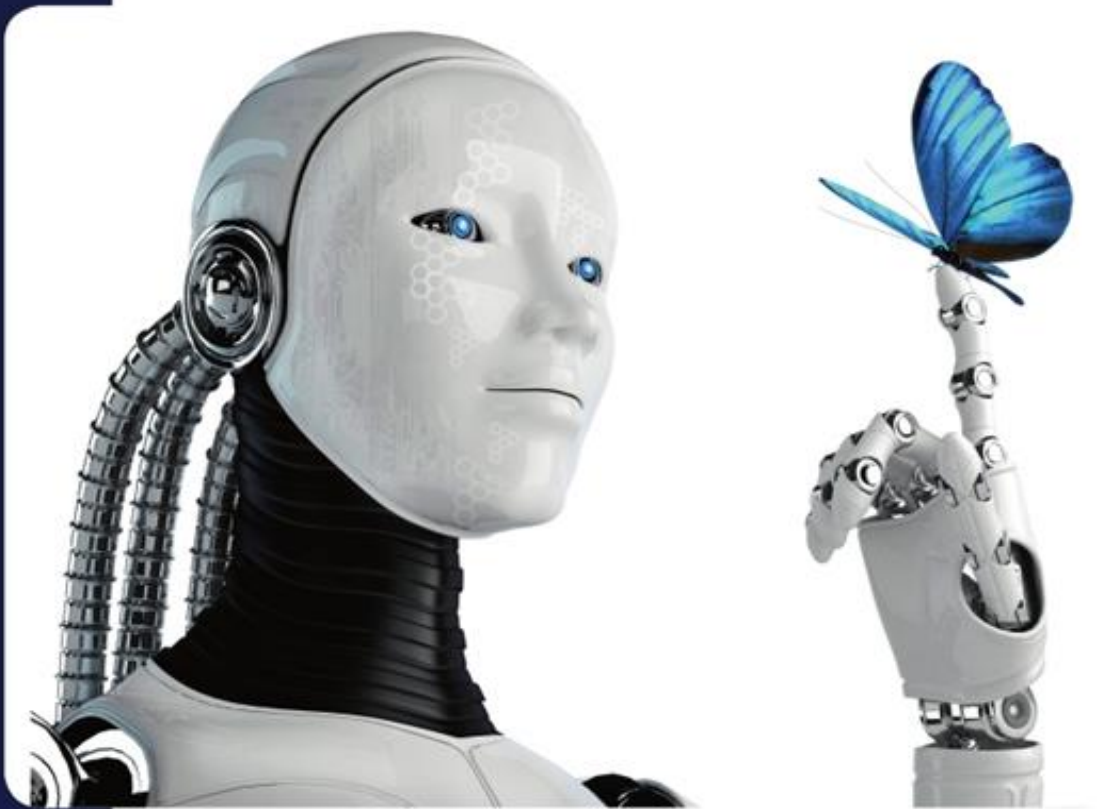# October, 2023

ICR

Hot Issue

1. **Information on expanding the code of accreditation for IAS**

2. **ICR Co., Ltd. Completed proficiency test of KOLAS**

3. **Participation in KORMARINE 2023 exhibition**

4. **Changes related to NBTC WiFi 6E in Thailand**

Information on expanding the code of accreditation for IAS

◼ **ICR, expanding the scope of IAS accreditation**

Recently, **ICR** conducted an audit to expand the scope of accreditation assessment through **IAS**, an American accreditation agency.

As a result, we were approved to expand the code of accreditation as of **September 8, 2023.**

◼ **IAS Expanded Accreditation Codes**

The code of accreditation expanded through audit is as follows.

STANDARD	Accreditation codes extended from IAS
ISO 9001:2015	02, 15, 16, 24, 31, 39
ISO 14001:2015	04, 24, 31, 39
ISO 45001:2018	05, 06

◼ **IAS Certification Review**

As the scope of accreditation has been expanded, **ICR will be able to audit and issue certificates for the code through IAS as of September 12, 2023.**

Information on expanding the code of accreditation for IAS

■ **IAS Accreditation Certificate**

You can check the IAS certificate on the ICR website → About ICR → Accreditation → IAS, and you can check the IAF Code (Certification Sectors) granted by IAS.

IAS Accreditation Certificate

ICR CO., LTD.

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SEOUL, 08510, REPUBLIC OF KOREA
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MSCB-321

Accredited to Accredited to ISO/IEC 17021-1:2015, ISO/IEC 17021-3:2017, ISO/IEC 17021-2:2016, ISO/IEC 17021-10:2018	Effective Date September 8, 2023

Discipline of Certification:	Quality Management Systems
Certification Standard:	ISO 9001:2015
Certification Scheme:	N/A

Certification Sectors

1: Agriculture, Hunting, Forestry & Fishing	20: Shipbuilding
2: Mining and Quarrying	22: Other Transport Equipment
3: Food Products, Beverages and Tobacco	23: Manufacturing Not Elsewhere Classified
4: Textiles and Textile Products	24: Recycling
5: Leather and Leather Products	28: Construction
6: Wood and Wood Products	29: Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods
7: Pulp, Paper and Paper Products	30: Hotels and Restaurants
8: Publishing Companies	31: Transport, Storage and Communications
9: Printing Companies	32: Financial Intermediation, Real Estate, Renting
10: Coke and Refined Petroleum Products	33: Information Technology
12: Chemicals, Chemical Products and Fibres	34: Engineering Services
14: Rubber and Plastic Products	35: Other Services
15: Non-metallic Mineral Products	36: Public Administration
16: Concrete, Cement, Lime, Plaster, etc.	37: Education
17: Basic Metals and Fabricated Metal Products	39: Other Social Services
18: Machinery and Equipment	
19: Electrical and Optical Equipment	

Information on expanding the code of accreditation for IAS

IAS Accreditation Certificate

Discipline of Certification:	Environmental Management Systems
Certification Standard:	ISO 14001:2015
Certification Scheme:	N/A

Certification Sectors	
3: Food Products, Beverages and Tobacco 4: Textiles and Textile Products 5: Leather and Leather Products 6: Wood and Wood Products 7: Pulp, Paper and Paper Products 8: Publishing Companies 9: Printing Companies 12: Chemicals, Chemical Products and Fibres 14: Rubber and Plastic Products 15: Non-metallic Mineral Products 16: Concrete, Cement, Lime, Plaster, etc. 17: Basic Metals and Fabricated Metal Products 18: Machinery and Equipment 19: Electrical and Optical Equipment 20: Shipbuilding 21: Aerospace	22: Other Transport Equipment 23: Manufacturing Not Elsewhere Classified 24: Recycling 28: Construction 29: Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods 30: Hotels and Restaurants 31: Transport, Storage and Communications 32: Financial Intermediation, Real Estate, Renting 33: Information Technology 34: Engineering Services 35: Other Services 36: Public Administration 37: Education 39: Other Social Services

Discipline of Certification:	Occupational Health and Safety Management Systems
Certification Standard:	ISO 45001:2018
Certification Scheme:	N/A

Certification Sectors	
4: Textiles and Textile Products 5: Leather and Leather Products 6: Wood and Wood Products 7: Pulp, Paper and Paper Products 8: Publishing Companies 9: Printing Companies 10: Coke and Refined Petroleum Products 12: Chemicals, Chemical Products and Fibres 13: Pharmaceuticals 14: Rubber and Plastic Products 15: Non-metallic Mineral Products 16: Concrete, Cement, Lime, Plaster, etc. 17: Basic Metals and Fabricated Metal Products 18: Machinery and Equipment 19: Electrical and Optical Equipment	22: Other Transport Equipment 23: Manufacturing Not Elsewhere Classified 24: Recycling 28: Construction 29: Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods 31: Transport, Storage and Communications 32: Financial Intermediation, Real Estate, Renting 33: Information Technology 34: Engineering Services 35: Other Services 36: Public Administration 37: Education 39: Other Social Services

Information on expanding the code of accreditation for IAS

◼ As the scope of accreditation of ICR expands, customers who were previously audited by **KAB or ANAB can switch the accreditation agency to IAS.**

ICR promises to always respond to customer requests and strive to provide better audit services.

☎ **Inquiries**

System Certification Center / Lee, Jae-Min

T. 070-5083-2612 / lee2750@icrqa.com

ICR Co., Ltd. Completed proficiency test of KOLAS

◼ The purpose of this proficiency test is to identify the measurement capabilities of KOLAS accredited testing institutes and other general industries **for reliability testing, and to secure the reliability of testing institutes, fairness and accuracy of test results.**

◼ The proficiency test conducted this time is a proficiency test conducted by the Korea Testing Laboratory (KTL) with the approval of the Korea Accreditation Organization, and **ICR participated in the "high temperature related environment and reliability" test.**

◼ **ICR-recognized standards** for "high-temperature environment and reliability" test

  1) IEC 60068-2-2

  2) KS C IEC 60068-2-2

  3) MIL-STD-810F 501.4 High Temperature

  4) MIL-STD-810G 501.5 High Temperature

ICR Co., Ltd. Completed proficiency test of KOLAS

◼ As a result of the performance evaluation with the participation of a total of 20 test institutes, **the ICR "satisfactory" result** was obtained, **confirming the expertise of the engineers in the ICR** "high temperature related environment and reliability" test.

◼ In order to provide better service for reliability testing to customers, ICR plans to continuously improve its expertise through various methods other than participation in proficiency programs.

☎ **Inquiries**

Mobility Center/ Im, Dae-Hyun
T. 070-5083-7908 / terry.im@icrqa.com

Participation in KORMARINE 2023 exhibition

◾ ICR is excited to announce that it will be participating in the International Marine, Shipbuilding, Offshore, Oil&Gas Exhibition (KORMARINE 2023), which is scheduled to take place **at BEXCO, Busan, from October 24 to October 27, 2023.**

◾ **KORMARINE** is a prestigious exhibition attended by over 700 companies from 30 different countries worldwide.
These companies showcase their latest products and technology in the maritime industry.

◾ ICR plans to **set up a booth at KORMARINE's 2nd exhibition hall** to provide Ex-certification procedure and related information to customers who are interested in Ex-certification. Additionally, we are planning to **hold an Ex-certification Guide seminar at Exhibition Hall 1 on October 25, 2023**, so we ask for your interest.

◾ ICR is looking forward to meeting with our existing customers and forging new partnerships with potential customers at the KORMARINE exhibition.

☎ **Inquiries**

Industrial Safety Center / Yang, Dae-Song
T.070-5083-2658 / yds@icrqa.com

Participation in KORMARINE 2023 exhibition

KORMARINE 2023

OCT 24 (TUE) - 27 (FRI)
BEXCO, BUSAN, KOREA

MARINE | SHIP BUILDING | GREENSHIP & LNG | OFFSHORE | OIL&GAS

2023 ICR Ex-Certification Guide Seminar

ICR will hold information and training seminars on Ex- certification during the 2023 International Shipbuilding & Marine Industry Exhibition.

We welcome the participation of our customers.

Date
From 24 to 27 October 2023

Schedule
10:00 ~ 16:00, 25 October 2023
BEXCO Room 314, 3rd floor, Seminar Room, Exhibition Hall 1

Booth Place
Busan BEXCO 2nd Exhibition Hall Booth 4N06

Topic
Refer to below

Guide
domestic and overseas certifications
like IECEx, ATEX, KCs, CCC. etc.

IECEx · Ex · KCs · CCC

Remark
Special invited lecture :

Kang, Joon Goo
Representative Career : General Manager of Korea Testing Laboratory (KTL) Explosion Proof Technology Center

Min, Yeong, Seung
Representative Career : Director of Korea Testing Laboratory (KTL) Explosion Proof Technology Center

Time Table

Time	Topic	Lecture
10:00 ~ 11:00	Equipment - General requirement (IEC 60079-0)	ICR : Yang, Dea Song
11:00 ~ 11:30	Non-electrical equipment for explosive atmosphere (ISO 80079-36, ISO 80079-37)	ICR : Jack, Park
11:30 ~ 12:00	Equipment protection by flameproof enclosures "d" (IEC 60079-1)	ICR : Jake, Yun
12:00 ~ 13:00	Lunch time	-
13:00 ~ 14:00	Intrinsically safe circuit design and failure analysis (IEC 60079-11)	KExT : Kang, Joon Goo
14:00 ~ 15:00	Electrical installations design, selection and erection (IEC 60079-14)	KExT : Min, Yeong, Seung
15:00 ~ 16:00	Ex-product offshore-type approval	ICR : Kwon, Hyeok Sang

※ Note: All training sessions include breaks. Please be aware that lunch will not be provided.

Contact

Jake, Yun
Associate Research Engineer
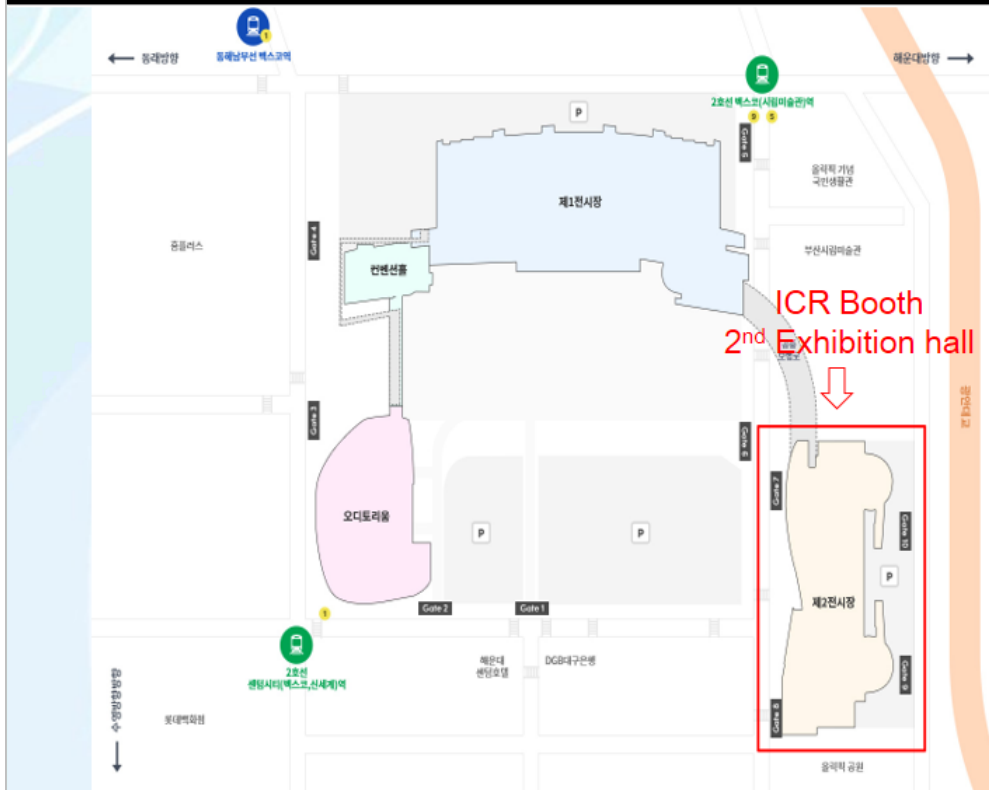T e l : 02-6351-9005 / E-mail : yji@icrqa.com
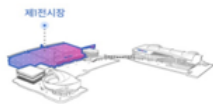
ICR

2023 KORMARINE exhibition Map

KORMARINE 2023
OCT 24 (TUE) - 27 (FRI)
BEXCO, BUSAN, KOREA

MARINE | SHIP BUILDING | GREENSHIP & LNG | OFFSHORE | OIL&GAS

Exhibition booth & Seminar Location info

ICR Booth
2nd Exhibition hall

ICR Seminar
1st Exhibition halll
3rd Floor, Roon 314

제1전시장 **3F**

1전시장
Lobby

ICR

Contact
Jake, Yun
Associate Research Engineer
T e l : 02-6351-9005 / E-mail : yji@icrqa.com

Changes related to NBTC WiFi 6E in Thailand

◼ An internal meeting was held to complete the necessary documents and test reports for Type Approval(**Class B**) and **SDoC**(Supplier's Declaration of Conformity

◼ **1. Approve WiFi 6E Module**

Although the WiFi 6E Module does not support the 6.425 to 7.125 GHz band, it has concluded that SDoc can be approved for import.

▶ **1.1** Module Specifications: Only frequencies within 5.925 to 6.425 GHz shall be noted.
(Frequencies between 6.425 and 7.125 GHz cannot be written)

▶ **1.2** Declaration: The NBTC shall state in its module manufacturer's declaration that the frequency 6.425 to 7.125 GHz band will be disabled by software and will not operate in Thailand.

▶ **1.3** Test report: 5.925~6.425 GHz
(6.425~7.125 GHz frequency cannot be written)

Changes related to NBTC WiFi 6E in Thailand

■ **2. Final product approval using wireless test report from WiFi 6E radio module**

For final product approval, the NBTC allows the use of wireless reports from the WiFi 6E Module.

▶ **2.1** Product specification: Only frequencies within 5.925 to 6.425 GHz are indicated

(Frequencies between 6.425 and 7.125 GHz cannot be written)

▶ **2.2** Final Product Manufacturer's Declaration: NBTC requires

  a) Final Product Manufacturer's Declaration stating that frequencies 6.425 to 7.125 GHz are disabled by software.

  b) It shall be stated that the product will be used for indoor use or indoor and outdoor use.

▶ **2.3** Declaration of the Thai Importer (Applicant): The NBTC shall state in the Declaration of the Thai Importer (Applicant) that the Products will be used for indoor or indoor and outdoor purposes only.

▶ **2.4** Test Report: Only 5.925 to 6.425 GHz

(6.425 to 7.125 GHz frequencies cannot be indicated).

▶ **2.5** For indoor and outdoor use, the NBTC shall output no more than 25 mW EIRP. (Can't contain 250 mW EIRP output)

Changes related to NBTC WiFi 6E in Thailand

■ **3. Final product approval using test report of final product**

▶ **3.1** Product Specification: Frequency notation within 5.925 to 6.425 GHz (6.425~7.125 GHz frequency cannot be written)

▶ **3.2** Final product manufacturer's declaration:
NBTC recommends that the product is for indoor use only or indoor and outdoor use only
Require a declaration from the final product manufacturer to specify that it is used for the purpose.

▶ **3.3** Declaration of the Thai Importer (Applicant):
The NBTC shall state in the declaration of the Thai Importer (Applicant) that the Products will be used for indoor or indoor and outdoor purposes only.

▶ **3.4** Test Report: Only 5.925 to 6.425 GHz (6.425 to 7.125 GHz frequencies cannot be indicated).

▶ **3.5** For indoor and outdoor use, the NBTC shall output no more than 25 mW EIRP.
(Can't contain 250 mW EIRP output)

Changes related to NBTC WiFi 6E in Thailand

◼ **4. Use the wireless report from the WiFi 6E radio module to terminate product approval, but do not use 5.925 to 7.125 GHz (using 2.4 GHz and 5 GHz only)**

▶ **4.1** Product specification: 2.4 GHz and 5 GHz frequencies only (5.925 to 7.125 GHz information cannot be indicated)

▶ **4.2** Final Product Manufacturer's Declaration: NBTC requires
  a) Final Product Manufacturer's declaration that frequencies 5.925 to 7.125 GHz are disabled by software.

▶ **4.3** Test Report: It shall not contain information about 5.925 to 7.125 GHz.

◼ **5. Wireless test report requirements**

The wireless test report shall include test results for all supported bandwidths.

◼ **6. EMF/SAR Test Report Requirements**

EMF/SAR test reports shall be issued in accordance with the final product model and shall contain only 5.925 to 6.425 GHz (frequency 6.425 to 7.125 GHz cannot be indicated).

Changes related to NBTC WiFi 6E in Thailand

◼ 7. Transmit Power Envelope (TPE) Products

NBTCs such as pocket wifi, smartphone hotspots, outdoor access points, etc. that use TPE to adjust power to LPI (250 mW EIRP) and adjust power to VLP (25 mW EIRP) (e.g., outdoor equipment) cannot be concluded because there is not enough information.
The NBTC requires one example to consider a pilot project.

▶ **7.1** Product Specification: Only frequencies within 5.925 to 6.425 GHz are indicated (6.425 to 7.125 GHz frequencies cannot be indicated)

▶ **7.2** Final Product Manufacturer's Declaration: NBTC requires

a) Final Product Manufacturer's Declaration to specify that frequencies 6.425 to 7.125 GHz are disabled by software.

b) The product supports a Transmit Power Envelope (TPE) technique that automatically adjusts output power to LPI (250 mW EIRP) for equipment connected to indoor access points and adjusts power to VLP (25 mW EIRP) when connected to outdoor equipment such as pocket Wi-Fi, smartphone hotspots, and outdoor access points.

▶ **7.3** Declaration of the Thai Importer (Applicant): NBTC requires the declaration of the Thai Importer (Applicant) to state that the Products will be used for indoor or indoor and outdoor use only.

Changes related to NBTC WiFi 6E in Thailand

▶ **7.4** RF/EMF/SAR/Electrical Safety Test Report:

5.925~6.425 GHz(6.425 to 7.125 GHz frequencies cannot be indicated), and the test report shall include both test mode LPI (250 mW EIRP) and VLP (25 mW EIRP).

◼ 8. Interior and Interior Supplies Considerations

8) Consideration of indoor&outdoor and indoor products
NBTC set up maximum output power as in below table.

Frequency (GHz)	Maximum e.i.r.p. output power (mW)	Application	Example of products
5.925-6.425	250	Indoor	Wifi access point, desktop computer (without battery)
	25	Indoor and outdoor	Wifi outdoor access point, mobile phone, notebook PC, portable access point, any products with rechargeable battery

Portable products with rechargeable batteries can be easily carried outdoors, so NBTC will be considered indoor and outdoor use, and the output power of these products shall be up to 25 mW EIRP.

The user manual clearly indicating that the product is for indoor use in the NBTC and the importer's declaration to confirm that the product is for indoor use shall be provided, and indoor and outdoor products may be classified according to the application.

Changes related to NBTC WiFi 6E in Thailand

The required documents are as follows.

▶ **8.1** Product Specification: Only frequencies within 5.925 to 6.425 GHz are indicated   (6.425 to 7.125 GHz frequencies cannot be indicated)

▶ **8.2** Final Product Manufacturer's Declaration: NBTC requires

   a) Final Product Manufacturer's Declaration stating that frequency 6.425-7.125 GHz is disabled by software.

   b) The product shall be made available only indoors.

▶ **8.3** Declaration of the Thai Importer (Applicant): The NBTC shall state in the Declaration of the Thai Importer (Applicant) that the Products are intended for indoor use only.

▶ **8.4** A manual is required to clearly indicate that the product is suitable for indoor use only.

▶ **8.5** RF/EMF/SAR/Electrical Safety Test Report: Only 5.925-6.425 GHz (6.425-7.125 GHz frequency cannot be indicated) shall be noted. The RF test report shall include 250 mW EIRP output power (>25 mW EIRP).

☎ **Inquiries**
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