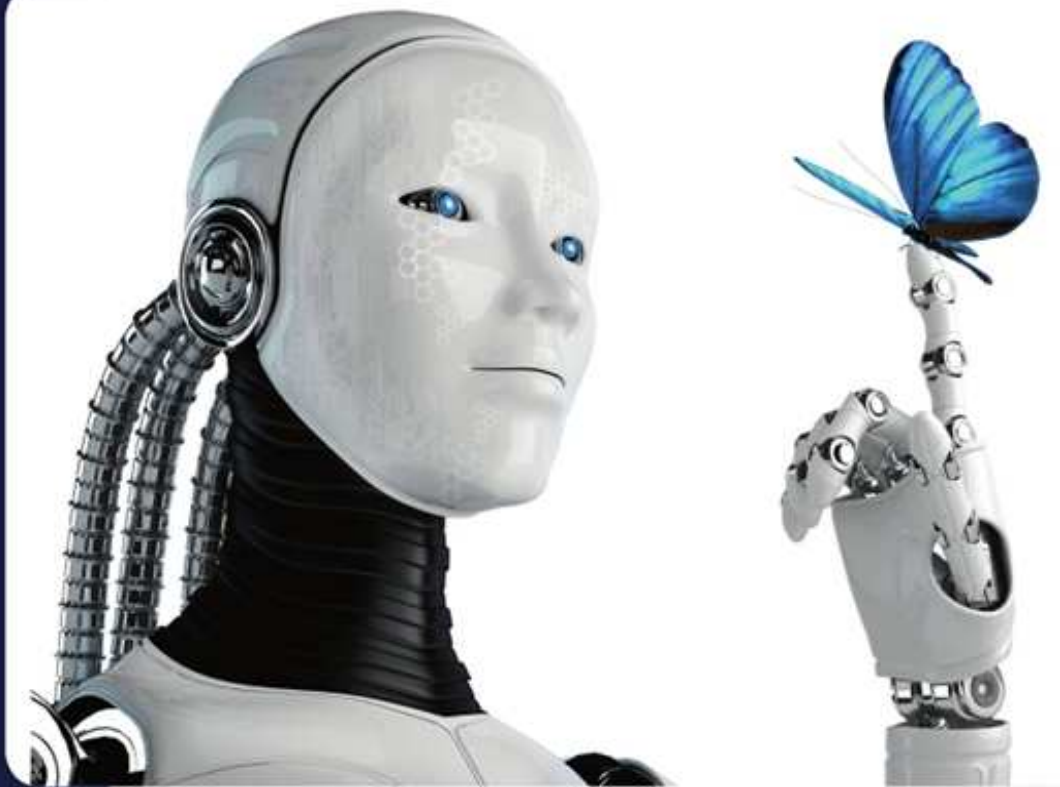


# Newsletter November, 2018



# ICR



## Hot Issue

- 1. RRA Completion**
- 2. OFFSHORE KOREA 2018**
- 3. Standardization trend of IEEE 802.11ax high-efficiency wireless LAN technology**
- 4. Management System Certification Global Status**
- 5. Management System Certification Korea Status**





# RRA Completion (Electromagnetic Test Headquarters)

On September 17, 2018 at the **RRA 5G mobile communication(RF EMC) and FCC additional designation audit** have been completed.

ICR Co., Ltd. has developed a For **all electrical / electronic products in the industrial sector KC test certification / registration** is provided.

Thank you for your interest.

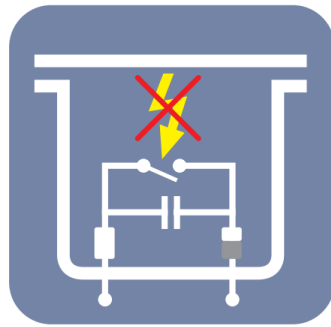
# OFFSHORE KOREA 2018



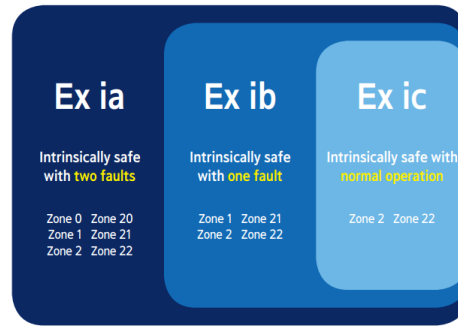
ICR took part in **OFFSHORE KOREA 2018** which was held from **October 10<sup>th</sup> to 12<sup>th</sup>**.

In addition to ICR introduction, we were able to guide customers who visited mainly the **ATEX**, **System Certification(ISO 45001)**, and **Approved testing agency of Korean Register (KR)**.

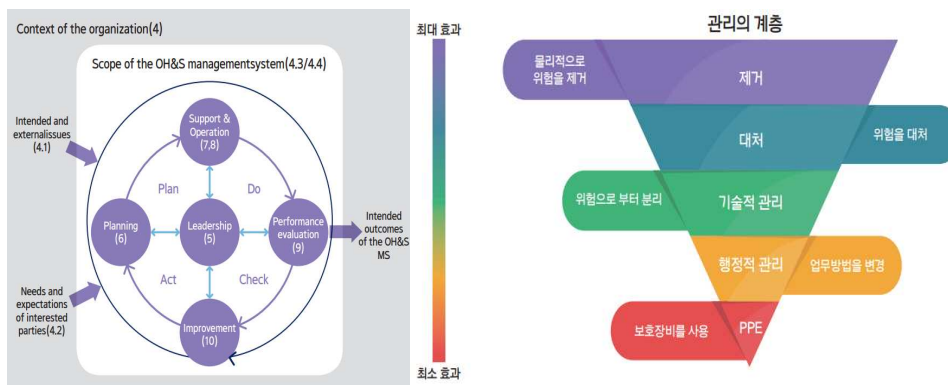
# OFFSHORE KOREA 2018



Symbol : Ex "i"



Many people were curious about the **Intrinsic Safety EX"i"** from type of protection for **ATEX**.



The **ISO 45001** was newly published and interested in **Identify risk and risk assessment, Removing risk factors and Reducing safety and health risks** based on the **PDCA cycle**.

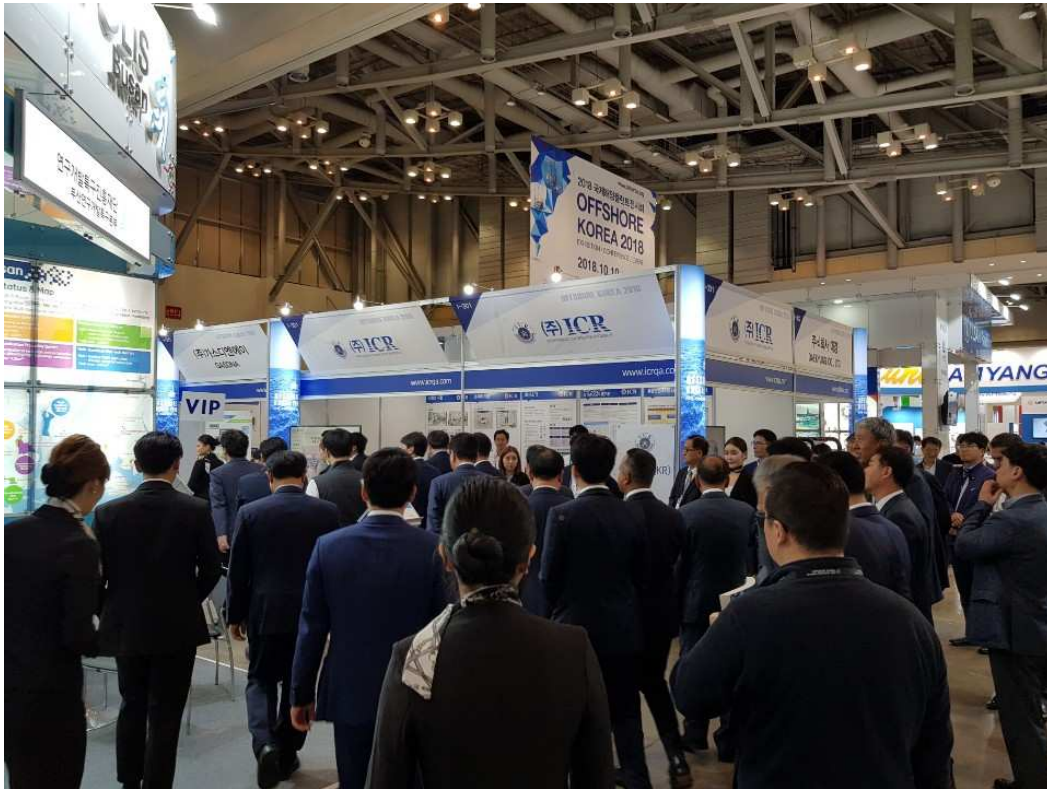
# OFFSHORE KOREA 2018



This exhibition was a great opportunity to let you know that the **ICR** can provide the necessary services for various customers in the **Offshore** and **shipbuilding Fields**.

Also the exhibition successfully finished because many people **interest and participate**.

# OFFSHORE KOREA 2018



**ICR** will reach customers in a wide range of fields, and we will be able to meet you at several exhibitions with more advanced features with **OFFSHORE KOREA 2018**.



# Standardization trend of IEEE 802.11ax high-efficiency wireless LAN technology

Many smart devices now include WLAN technology, and WLAN products based on the 802.11n standard, the mainstream of WLAN technology, are increasingly being replaced by 802.11ac standards-based products.

802.11ac is capable of transmitting up to 160MHz bandwidth in the 5GHz frequency band and supports downlink MU-MIMO (Multi-User Multiple Input, Multiple Output) and 256QAM (Quadrature Amplitude Modulation).

**IEEE 802.11 TGax** is developing the **802.11ax high-efficiency WLAN standard**, the successor standard of 802.11ac. Because existing WLAN technology is severely degraded in dense environments, 802.11ax is primarily aimed **at increasing the efficiency of spectrum** use in dense environments and **improving the performance that users actually experience.**



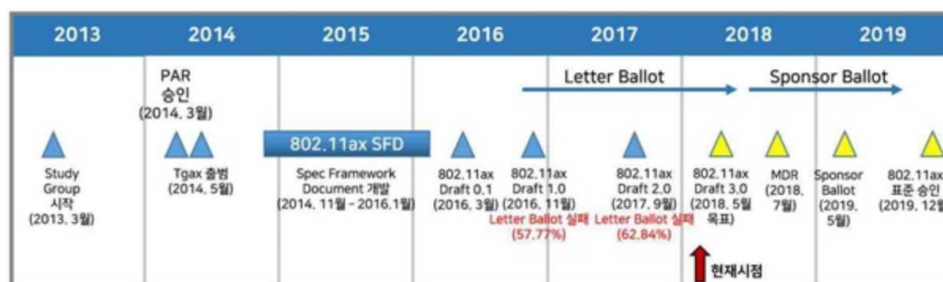


# Standardization trend of IEEE 802.11ax high-efficiency wireless LAN technology

The 802.11ax standardization schedule was delayed and discussions were made at the November 2017 meeting to delay the timeline. The 802.11ax standard final approval target was delayed to December 2019, delaying the final standard approval time by five months. Figure 1 summarizes the most recently changed IEEE 802.11ax timeline.

802.11ax aims to improve average throughput at least four times per terminal in dense environments scenarios by adding uplink MU-MIMO technology to the specification and using uplink and downlink Orthogonal Frequency Division Multiple Access (OFDMA) technology. Was introduced.

The 1024 QAM was added to further improve throughput. We are also developing a Spatial Reuse specification to improve system-level performance and improve media resource utilization.



[Figure 1]

# Management System certification Global status



| Management System |   | 2016    | 2017    | Variation(%) |
|-------------------|---|---------|---------|--------------|
| ISO 9001          | Quality Management System                 | 1105937 | 1058504 | -4.5         |
| ISO 14001         | Environmental Management System           | 346147  | 362610  | 4.5          |
| ISO 50001         | Energy Management System                  | 20216   | 22870   | 11.6         |
| ISO 27001         | Information Security Management System    | 33290   | 39501   | 15.7         |
| ISO 22000         | Food Safety Management System             | 32139   | 32722   | 1.8          |
| ISO 13485         | Medical Devices Quality Management System | 29585   | 31520   | 6.1          |
| ISO 22301         | Business Continuity Management System     | 3853    | 4281    | 10.0         |
| ISO 20000-1       | IT Service Management System              | 4537    | 5005    | 9.4          |
| ISO 28000         | Supply Chain Security Management System   | 356     | 494     | 27.9         |
| ISO 39001         | Road traffic Safety Management System     | 478     | 620     | 22.9         |
| Total             |   | 1576538 | 158127  | -1.2         |

Compared to the existing certification market(Quality & Environmental) slowing down, specialized certification is spreading.

# Management System certification Korea Status



| Year | ISO certification | Variation |
|------|-------------------|-----------|
| 2010 | 66,239            | -         |
| 2011 | 71,035            | 7.2%      |
| 2012 | 76,303            | 7.4%      |
| 2013 | 76,935            | 0.8%      |
| 2014 | 77,954            | 1.3%      |
| 2015 | 79,998            | 2.6%      |
| 2016 | 82,693            | 3.4%      |
| 2017 | 80,815            | -2.3%     |

Existing quality and environmental management system market is slowing down as same as global market.



[www.icrqa.com](http://www.icrqa.com)

ICRO-31/R20161125 본 문서는 법률 제 14088호 저작권법의 보호대상이며, ICR의 지적 자산으로 불법 편집 및 복사를 금합니다.

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