

Severe Accidents at Construction Sites Will Be Reduced in a Smart Manner!

Operating testbed for smart safety equipment at construction sites and developing the guidelines to apply the equipment to the sites

- The Korea Occupational Safety and Health Agency (hereinafter referred to as 'the agency' or 'KOSHA', President AHN Jong-ju) will develop the standard models of smart safety equipment and assessment criteria that will be deployed at construction sites between June and November of 2023. To that end, the agency will establish the testbed at the sites prone to fatal accidents and apply those smart safety equipment accordingly based on the types of construction.
- The market for smart construction safety is growing as more smart safety equipment is developed and deployed. However, there is no assessment criteria regarding how to apply smart safety equipment based on the site situations as well as functions and performance of that equipment. As a result, construction sites experience difficulties in choosing and operating smart safety equipment.
- The agency works with the Seoul National University R&D Foundation Tech-biz Innovation Platform to run testbeds at construction sites operated by Hyundai Engineering & Construction between June and September of 2023. For each detailed construction task such as drilling, building structure, and finishing work, a total of 10 types of smart safety equipment including controlling system, AI surveillance camera and sensors are planned to be deployed, which will help the sites establish the most optimal model of smart safety equipment set.

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- After running those testbeds, the staff at the construction sites will have hands-on experience of using those smart safety equipment; opinions and feedback from the sites will be collected and reflected onto the R&D results.
- In addition, detailed guidelines are scheduled to be provided regarding installation conditions and methods of equipment, labor requirements and operation options by the type of construction, equipment and installation phase. Detailed assessment criteria for smart safety equipment will also be developed by utilizing the results of users surveys such as the minimum performance standard by equipment and user satisfaction.

By providing the guidelines to the construction sites, KOSHA plans to utilize the feedback and the R&D results from the sites as the guiding principles to introduce the assessment criteria.

- Director KIM, Gyu-wan of Smart Occupational Safety & Health Technology Institute of KOSHA said, "This is meaningful as we can establish a system to prevent occupational accidents by using new technologies in partnership with KOSHA, the academia and the industry." He also added, "This research project will contribute to the prevention of occupational accidents at workplaces where they use smart devices by developing and deploying high-quality smart safety equipment."

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Photos: KOSHA has established and been operating the testbed in order to develop the smart safety model for construction sites and establish assessment criteria

