wakecap

Case Study

Industry	Activity	Increase Site Efficiency
Construction	Sign-on Sign-off	Automated Action

Specific Objective

The sign-in and sign-out process for each worker, twice a day, takes approximately 15-30 minutes per day, depending on current systems and site limitations. Monitoring this process by the time-keeper, security guard or support staff is further time lost, without consideration to the laborious task of checking and documenting site attendance, often with multiple data entry processes.

The WakeCap technology is designed to monitor site location in real-time and, as such, provides the ability to automate tasks, such as the sign-on and sign-off process. In this study we analyzed real-time movement during the sign-in and sign-out process for a client, both before and after the implementation of the WakeCap system to demonstrate time saved, resulting in more time worked at the site for all employees.

The WakeCap Solution

WakeCap transmits real-time count and location of all workers, the WakeCap Hardhat Knob, containing purpose developed sensors, detect the worker attendance to automatically provide accurate attendance data of all workers deployed for specific work activities at the assigned zones, including the walk through site entrance gate.

The WakeCap technology automates attendance as each worker enters or leaves the site, eliminating long check-in and out queues. There is no need for the employee, or sub-contractor, to carry other devices (scan-cards, bands etc.) as these are all eliminated by using WakeCap Smart Helmet.

The data collected for each employee is transmitted to the WakeCap Application to report attendance or integrate with other human resources management software, saving time at site and in the office.

The Proven Results

In a real case study of a tower project in Dubai - UAE, 97 workers from a specific sub-contractor providing MEP work were closely monitored as they signed in and out using a biometric-based attendance system, located at Basement (B2) level in Zone (Z2).

Each study participant was also wearing a WakeCap Hardhat that enabled the WakeCap system to generate a detailed report showing each employee required, on average, 9.5 minutes per day to complete the sign-on process and 14 minutes per day to complete the sign-off process. A total time lost, on average, of 23 minutes, 30 seconds - every day for each participant.

Comparatively, using the WakeCap system no time was lost, as the sub-contractor employee simply walked onto the construction site with the WakeCap Hardhat to automate attendance with ease and accuracy.

The WakeCap Dashboard provides real time visibility of each crew or sub-contactor trade active on site, reports on the total number of workers present for each work shift with accurate start and end time details.

This is just one example of the time and cost saving WakeCap bring to site operations, ensuring efficient improvement for every construction site.

The Challenge

Construction is one of the least digitized industry sectors due to the dynamic nature of the job site. Laborers are reluctant to use technology, there is a high cost for trainings workers, existing wearable in the market are not suitable for the construction tough environment—these are just some of the reasons discussed preventing digitalization reform.

The greatest challenges is the ability to detect and track manpower on the work site to ensure compliance and coordination. Reporting precisely who is at the workplace, when they arrived and when they leave is a tedious task to monitor.

This task, that should be simple is time consuming for both the worker and administrative staff.