

SAMI-AEC Raqeeb

Smart Site Safety Solution

Advancing Safety Standards at Saudi Construction Sites with Industry 4.0 Technologies

The construction sector is actively exploring diverse safety solutions for ensuring workers' safety while meeting regulatory compliance and saving costs. In this context, the use of Industry 4.0 technologies such as robotics and automation, wireless monitoring, and sensors, have emerged as an effective way to improve workers' safety. 4IR technology builds an interconnected construction site, aiding in the early identification of potential safety risks, enhancing site safety.

Prevailing Safety Challenges in the Construction Industry



Partially digitalized business and company models






Non-compliance with safety legislation



Reliance on manual labor, with limited use of smart tech

SAMI-AEC Raqeeb Safeguarding Construction Sites with 4IR Technologies

Industry 4.0 Technologies	Safety Enhancement
 Internet of Things	<ul style="list-style-type: none"> Get real-time alerts for falls and collisions Supervise construction sites for potential hazards such as floods and landslides
 Sensors	<ul style="list-style-type: none"> Monitor the health parameters of workers to avoid workplace injuries Track objects in real time to detect unsafe proximity
 Artificial Intelligence	<ul style="list-style-type: none"> Forecast and address risks to increase project efficiency Enable predictive maintenance for resource optimization

Boosting Workers' Safety and Health



Enables real-time monitoring of workers



Detects potential collisions or falls to prevent accidents



Generates automatic alerts if workers are in a dangerous situation



Analyzes various parameters, such as heart rate, to assess body stress levels