

# SAMI-AEC Raqeeb

## Smart Site Safety Solution

Mitigating Construction Fatalities and Accidents with AI and Automation

The construction sector is supercharging site safety efforts with active adoption of advanced automation and artificial intelligence (AI) technologies, resulting in significant enhancements in worker performance and reduction in construction site injuries. These efforts are influenced by a strong resolve to enhance on-site, regulatory compliance, workers' efficiency, and project ROI. Importantly, construction companies bear a substantial cost of \$1,190,000 per fatality and \$1,100 for each worker injury. Considering this, improving safety regulations is essential for KSA's construction and infrastructure leaders [1].

**Every \$1 invested**

in safety initiatives







**\$4 to \$6 savings**

as illnesses, injuries, and fatalities decline

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Fueling Tech-Enabled Site Safety, Reducing Construction Incidents and Fatalities

**Improving Decision Making | Averting Risk | Maximizing Project ROI**

	<p><b>Weather &amp; Air Quality Station</b></p>	<ul style="list-style-type: none"> <li>Indicative testing of environmental parameters</li> <li>Detects and alerts gas leakage and air hazards</li> <li>Real-time actionable insights sent to stakeholders for appropriate actions</li> </ul>
	<p><b>Smart Site Monitoring</b></p>	<ul style="list-style-type: none"> <li>Cameras for real-time monitoring</li> <li>Automated detection of unsafe conditions</li> <li>Voice broadcasting for timely alerts</li> </ul>
	<p><b>Smart Wearables</b></p>	<ul style="list-style-type: none"> <li>Wearable technologies for workers' safety assessment</li> <li>Free-fall from height detection and trigger SOS alerts</li> <li>Gas detection sensor to alert if exposed to harmful gasses</li> <li>Automate incidents and near-miss recording</li> <li>Live updates of workers in confined spaces</li> </ul>
	<p><b>Smart Beacons</b></p>	<ul style="list-style-type: none"> <li>Early warning of proximity to dangerous zones</li> <li>Geofencing around specific areas</li> <li>Establish communication in low-connectivity areas</li> </ul>

## Meeting Critical Construction Site Safety KPIs

SAMI-AEC Raqeeb combines a range of AI and IoT solutions to ensure:

