



The system implements AI Object Detection and Human Pose Recognition technology to monitor status of workers in workspace / construction site for safety measures

POSE RECOGNITION - AI VIDEO ANALYTICS TECHNOLOGY

- AI Deep Learning
- Able to reconstruct 18 points in skeleton
- High accuracy in detection of actual body state
- Able to detect multiple pose at same time



DETECTION FEATURES

1. Human Pose Detection : Fall Alarm & Idling Alarm



- The left bar indicates the “[fall alarm](#)”.
- If a body pose is detected in a lying position for more than 15 seconds, the “fall alarm” will be triggered.

- The right bar indicates the “[idling alarm](#)”.
- If a body pose is detected as idle for more than 15 seconds, the “idling alarm” will be triggered.

2. Helmet Detection



Status	Colour	Description	
		Wearing Safety Helmet (YES/NO)	Wearing Y-Type Chin Strip (YES/NO)
NONE	RED	NO	NO
BAD	ORANGE	YES	NO
GOOD	BLUE	YES	YES

3. Vest Detection



The AI model was trained to detect safety vest. Similar clothing like CIC Anti-Heat Stress Uniform will not be recognized as safety vest.

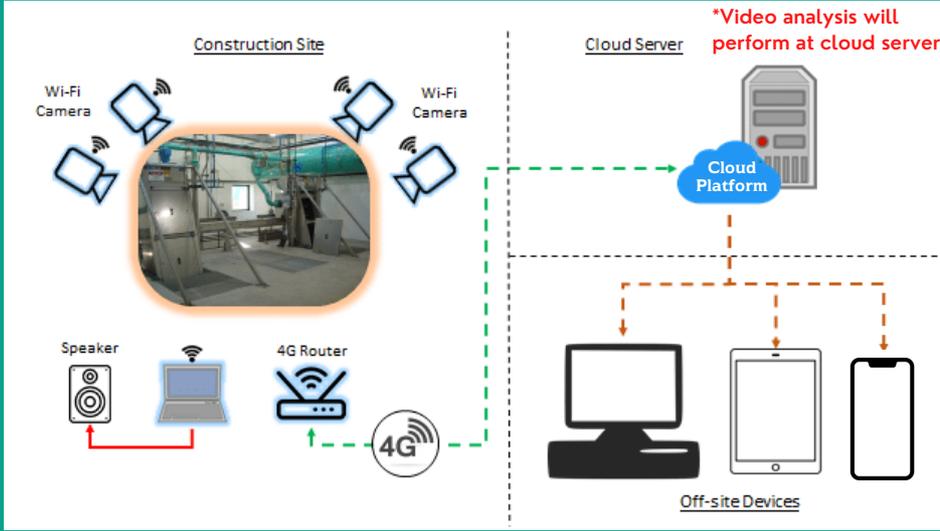


BASIC COMPONENTS

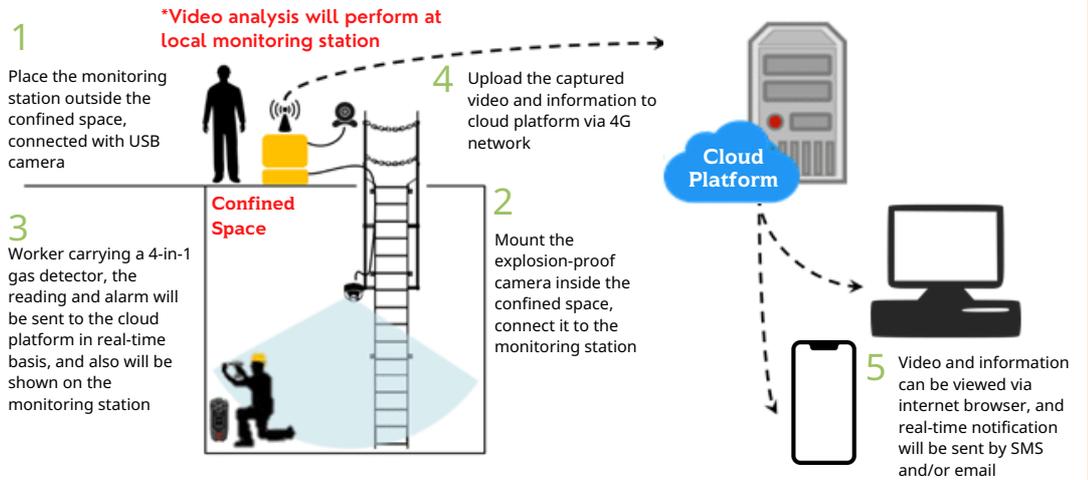
- Camera for video capturing (specification of camera is depends on usage and site situation)
- Display and alarm speaker / buzzer for local alert
 - a. For cloud based setup, notebook with speaker will be provided
 - b. For edge based setup, local monitoring station is equipped with LED display and buzzer
- Cloud server
 - a. For cloud based setup, video analysis will perform at cloud server
 - b. For edge based setup, cloud server is not necessary unless additional feature is purchased

EXAMPLE SETUP & REAL APPLICATION

Cloud based setup

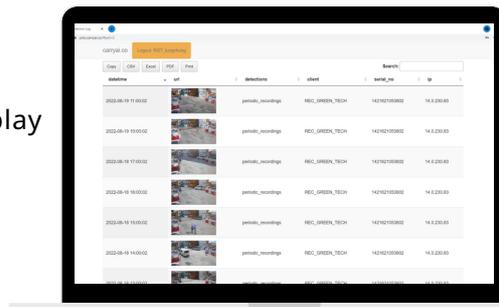


Edge based setup



ADDITIONAL FEATURES

- Support PTZ cameras
- Periodic recording (scheduled snapshot)
- Online web portal for snapshot storage and display
- Real time SMS / Whatsapp / E-mail notification
- Online live streaming
- Conventional intrusion detection / surveillance
- Floor opening / manhole cover detection
- AI Optical Character Recognition (OCR)



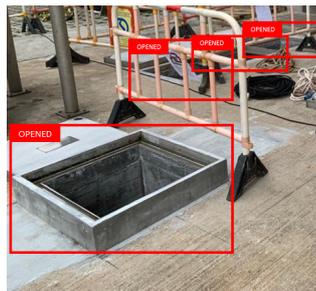
Online web portal



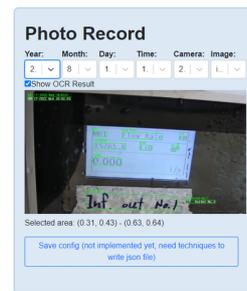
Real time Whatsapp notification



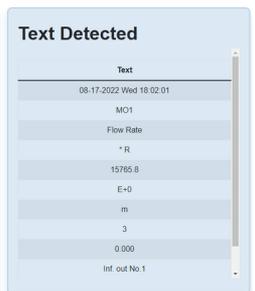
Online live streaming



Manhole cover detection



AI Optical Character Recognition (OCR)



For other site safety concerns and needs, please contact us for tailor-made solutions

