



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.

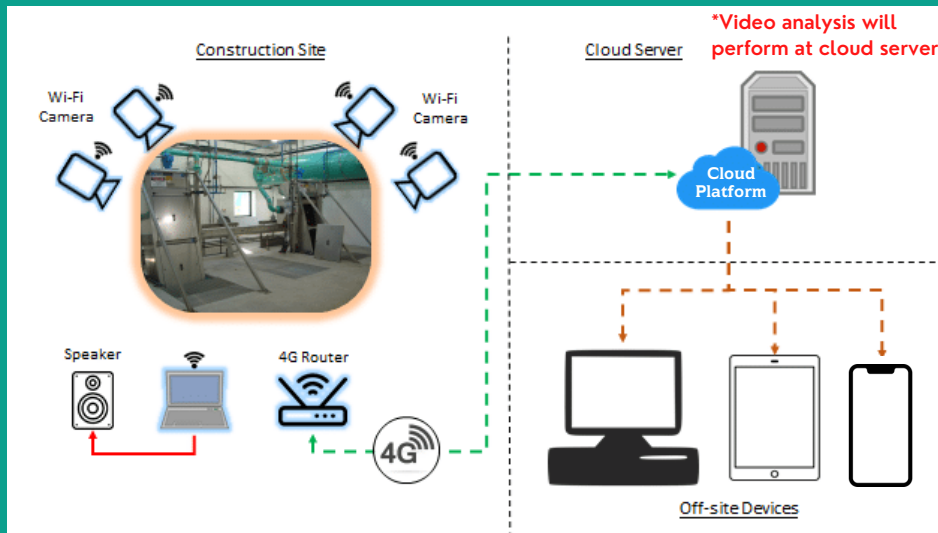


BASIC COMPONENTS

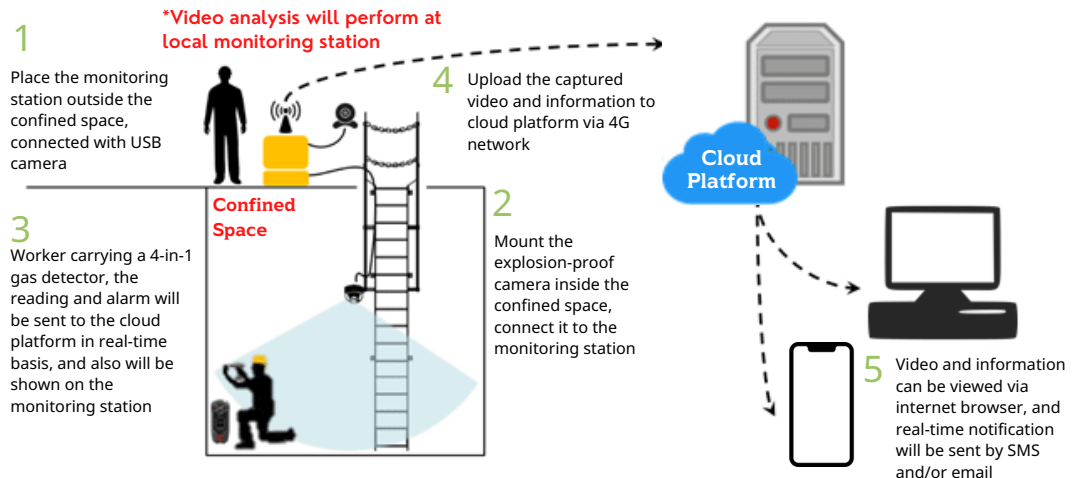
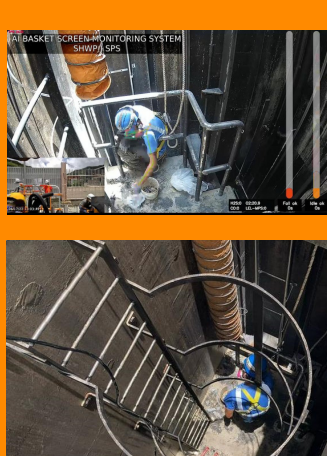
- Camera for video capturing (specification of camera is depends on usage and site situation)
- Display and alarm speaker / buzzer for local alert
 - a. For cloud based setup, notebook with speaker will be provided
 - b. For edge based setup, local monitoring station is equipped with LED display and 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

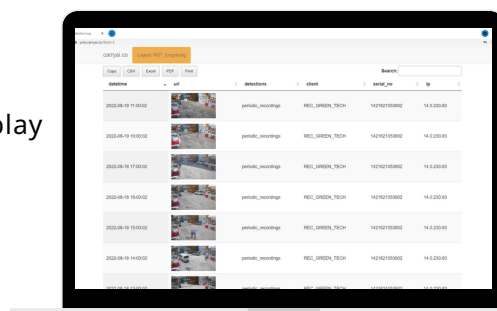


Edge based setup

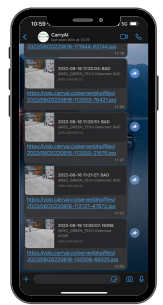


ADDITIONAL FEATURES

- 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)



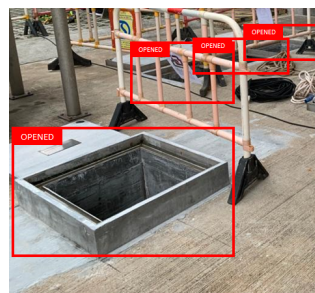
Online web portal



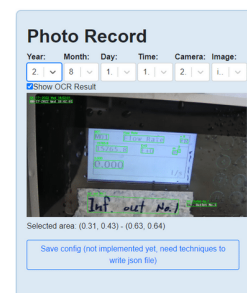
Real time Whatsapp notification



Online live streaming



Manhole cover detection



AI Optical Character Recognition (OCR)

