# greenmesh Powered BY 365mesh

### Intelligent Al real-time continuous Workplace Safety monitoring

Rapid deployment of mobile solutions for continuous monitoring. Always on, anytime and anywhere.



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Greenmesh Worksite Safety is a complete end-to-end workplace safety solution developed in Australia for heavy machinery industries such as mining, heavy earthworks, tunnel boring and large infrastructure and construction projects. Greenmesh utilises advanced Ai and machine learning, as well as purpose built sensors to aid companies to reduce worksite accidents and fatalities by providing early detection and warnings of potential high risk accidents before they occur.

Greenmesh also monitors and implements the correct use of protective equipment to help companies comply with industry health and safety standards, while also monitoring work habits to gain intelligent insights, allowing for improved safety and the automation of tedious tasks to attain workplace efficiencies, whilst maintaining high levels of safety for workers on site.

# What makes an effective workplace safety solution?



Detects and identifies safety risks on worksites before they become an issue or as soon as an incident occurs.

- Promptly alerts and informs the right people of accidents when they occur

Collects data and historic reports for analysis

Track people, vehicles and assets in real time, above and below ground



### Greenmesh does it all.

### **Our solution**



#### **Safety PPE Detection**

Identifies PPE items such as safety headgear, glasses, and vests. Monitors whether workers are properly wearing PPE wear while on site and restricts workers from entering job sites if all the safety wear required is not detected.

Greenmesh also utilises real time electronic RFID tags. It's unique identification feature can identify workers who do or do not comply with PPE standards, increasing the implementation of site safety monitoring around exclusion zones and machinery safe distancing.

#### Worksite safety detection for high-height risk incidents (Harness detection and exclusion zones)

Our cameras detect if workers are working from dangerous heights without a harness, monitors and enforces exclusion zones around moving plant situations, overhead power lines, overhead cranes, Rail corridors, etc.





#### Man Down detection/ alerting

Uses machine perception and video analytics to detect a single person or people who have fallen or slipped, and triggers instant alerts to authorised personnel so they can take immediate action.

#### **Reports on trip and fall detection**

With the use of man down alerting, Greenmesh keeps a count record of areas with repeated trips and fall incidents, giving users an accurate record of accident occurrences (if they are not reported by workers).

#### Detect potential workplace incidents between workers and moving vehicles

Determine safe distances between workers and moving machinery/equipment with exclusion zones.

This involves the installation of strategically placed blind spot detection and driver monitoring cameras onto vehicles to give drivers real time warnings of hazardous collision risks such as other objects or people who are close by.



# Create virtual boundaries/GEO fencing and receive boundary intrusion alerts.

Our algorithms in the cameras deployed allows users to create a virtual safety and exclusion zone radius around potentially dangerous machinery, monitor these areas and receive real time alerts when an unauthorised worker or other vehicles enters the exclusion zone, indicating that they are too close and may be in the way of danger.



#### Pedestrian vehicle/ machinery accident detection

Detects when a moving person and vehicle are in a potential path of collision and advises of smart precautions to regulate safer walking path practices and improves awareness while creating a fluid traffic environment.



## Energy and water consumption monitoring

Monitors and provides a report consolidating worksites' overall electricity and water consumption on per day, week, month and year (to date). This data is also available for all individual circuits and water sources. Create and manage email and SMS alerts for when certain power consumption levels are reached.

# Monitors air quality and detect various hazardous air particles such as silica dust and other respirable dust substances



Monitors the air quality and air composition in mining and drilling environments (outdoor or underground) for particles such as crystalline silica dust, and automatically alerts control rooms of any abnormalities in the air.

BA - Period 2 (Mon-Fri)

6/2023 05:30 AM LAeq (dB): 55.70 LAmax (dB): 72.70

Average (dB): 46.71

4.00 05:00 06:00 07:00 08:00 09:00 10:0

#### Detects, monitors and measures bushfire smoke and alerts when hazardous chemical levels are reached

Monitors the air composition and detects bushfire smoke components in the environment (outdoor or underground) such as carbon monoxide, nitrogen oxides, organic chemicals, black carbon and carbon dioxide, and automatically alerts control rooms of any abnormalities in the air.

#### Monitors high noise level environments

Monitors the worksites' noise levels from activities such as welding, drilling, digging and loud machinery vehicles and vibration performance in real time. Gain the ability to set noise level thresholds based on compliance limits which will trigger immediate alerts to prevent regulatory thresholds from being breached.



# Object identification and differentiation

Ai capabilities to accurately identify and differentiate between people demographics, vehicles types, machinery assets, and provide real time location information.

### Personnel and vehicle site access & tracking and monitoring

Utilise tags and facial recognition to implement site safety monitoring and automate time attendance by monitoring and reporting when workers enter or leave worksites.

Our electronic Asset tracking devices will track assets in real time and have the ability to monitor the usage statistics of vehicles. This provides companies with real-time visibility of their assets throughout the day which avoids equipment loss, theft and ghost assets as well as automating regular machinery maintenance.



#### **Rapid deployment of mobile solutions**

Greenmesh monitoring and detection solutions can be deployed anywhere with mobile trailers with cameras and sensors that can be mounted onto telescopic poles, vehicles and onsite

#### **About us**

Australian owned and operated

100% of our manufacturing process and facilities are in Australia and New Zealand

We have rapid deploy solutions that are mobile and can be moved from area to area by our team or onsite operators

We provide all-in-one offerings that includes the sensors, the network connectivity and the application. Having the expertise to take you through all the phases of an IoT project allows us to offer tailored solutions as well as direct support in case of problems with any of the components.

Our organisation has over a decade of experience in networking technologies and security, which form an integral part of the underlying architecture required for IoT networks.

#### Greenmesh can be utilised in many industries

- > Heavy machinery
- > Earth moving
- > Construction
- > Mining
- > Tunnelling and excavation
- > Warehouse and factories
- > Manufacturing

- > Healthcare and Aged care
- > Supermarket and Retail
- > Ocean and Marine
- > Airports
- > Railways
- > Transportation
- > Cold storage Logistics

#### **Contact us**

Follow us on social media

@365mesh

