



TeQ ShieldTM
AI

The growing need for Artificial Intelligence in HSE

There are thousands of workers on your worksite at any given moment. And just a handful of HSE personnel to ensure that they are practicing all safety guidelines. Give your HSE team the support the need with Artificial Intelligence solutions to ensure your onsite workers stay safe and productive.

Digitization in HSE is an essential part of Safety 4.0 and is becoming increasingly common through digital records, remote monitoring, real time personnel tracking to name a few. With ever-increasing requirements to optimize costs while improving safety, AI is all set to be the next step in this evolution.

Artificial Intelligence, Real HSE applications.

Safety and Productivity. Delivered.

Current HSE challenges in Oil and Gas

AI is well placed to solve some key HSE challenges in both upstream and downstream environments. HSE use cases include real time automated tracking, counting and monitoring of onsite personnel, immediate detection of onsite accidents and machinery fails like fire, electric sparks, visual leakages or smoke, enhanced monitoring of unauthorized behaviors, PPE compliance and control of multiple zones to detect unauthorized individuals.



Core AI applications

AI has numerous applications in HSE for both upstream and downstream operations. Key areas that AI can help improve HSE management include:

• Staff analytics

- People-on-Board (POB)
- Worker tracking and geo-location
- Unique people counting
- Time and attendance for employees and visitors
- Heat maps, Flow mapping and crowd management
- Face recognition
- Zone management

• Accident detection

- Man-down
- Slipping and falling
- Abandoned objects



- **Monitoring of unauthorized behaviors**

- Smoking
- Risky behavior like running

- **Proper adherence to protocols and maneuvers**

- Drilling platform procedures
- Self-location procedures

- **PPE Compliance**

- Reflective jackets
- Hard hats, safety goggles, boots
- Fall prevention equipment
- Any required safety equipment



Key Benefits of AI in HSE

- Flexible reliable, scalable modular platform
- Automated monitoring
- Real time alerts
- Configurable use cases for custom detections
- Automated PPE compliance monitoring
- People tracking
- More than 37 different pre-configured use cases
- Cost effective

Safety and Productivity. Delivered.



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