

SIYTE for Trespass Reduction in Rail

DETECT EARLIER. VERIFY FASTER. RESPOND WITH CONTEXT.

SIYTE helps operational rail teams detect and verify trespass and suspicious activity across stations, depots and equipment rooms. SIYTE workflow applies a series of checks to every detection to filter out false alerts and engineering work to maintain trust through accuracy.



INTELLIGENCE TO ACTION

01

INTEGRATE WITH EXISTING ASSETS

Apply analytics to existing cameras, including smart, legacy, solar and thermal cameras

ENHANCE EXISTING ASSETS

02

ADD CONTEXT

Filter out engineering work and add context, such as direction of movement and body position.

ACCURACY & CONTEXT

03

APPROPRIATE ACTIONS

Workflow can initiate announcements, multi-channel alerts or audit events for analysis, dependent on context

PROPORTIONATE ACTIONS

98%+ ACCURACY DRIVING TRUST

False alerts reduced by 98% in live UK rail deployment - ensuring teams have trust in alerts being genuine.

ONE FALSE ALERT OVER AN ENTIRE YEAR

In one customer deployment, only one false alert was sent across all stations in an entire year.

Accuracy, Context, Insights and Action

SIYTE provides the most accurate trespass detection available. SIYTE's workflow will check every detection against multiple models to remove engineering work, mis-detections and misplaced detections. In addition, Vision Language Models can provide valuable context to inform the appropriate response.

01 Accuracy

- SIYTE applies AI models in series to remove:
- Mis-detection (ensure it is really a person)
 - Train-related detections (e.g. in window)
 - Misplaced detections (check person is on track)
 - Engineering work (workers in full PPE)

TRUST • ACCURACY • CONTEXT

02 Context

SIYTE uses Vision Language Models to add context to every detection – direction of travel, actions of individuals (e.g. loitering, laying prone), carrying tools, etc

DIRECTION • LOITERING • BODY POSITION

03 Insights

SIYTE logs all incidents with evidence (redacted image or video) for trend analysis by SIYTE AI to enable data-driven business cases and improved trespass mitigation

INSIGHTS • TREND ANALYSIS • BUSINESS CASES

04 Actions

SIYTE workflow can automate appropriate actions:

- Automated speaker announcements as a deterrent.
- Multi-channel alerts to stakeholders with redacted image context

AUTOMATED ANNOUNCEMENTS • REAL TIME ALERTS

Re-use, Control & Assure



END TO END ENGINEERING ASSURANCE

SIYTE Engineers advise on everything from cameras to integrations, ensuring smooth delivery,.



INVESTMENT PROTECTION

SIYTE integrates with any existing CCTV, sensor or other system.



SECURE

All data is encrypted in transit and at rest. Role-based permissions for all aspects of system access.



GDPR COMPLIANT

Personal information (faces) removed from all images. Data retention enforcement.



CERTIFIED

ISO 9001 / 14001
27001 / 42001

Whole Systems Interface

The dashboard displays a 'Trespass Detection' section with a map of the rail network and a list of incidents. It also shows a 'Trespass Patterns' section with a bar chart and a 'Latest Trespass Notification' section with a detailed alert.

SIYTE presents a 'whole system' dashboard for real-time and historical data & alert analysis.

SIYTE AI provides a conversational interface to identify anomalies and predict failures using natural language

Incidents Catalogue > Organisation Dashboard
Rail

Trespass Detection
SIYTE uses AI-powered video analytics to detect unauthorized access in real time. It sends instant alerts, filters out false alarms, and can trigger deterrents like alarms or speakers. By combining live CCTV analysis with automated reporting, SIYTE helps reduce trespassing, prevent vandalism or theft, and keep personnel safe. It also integrates with existing security systems to strengthen overall site protection.

Outside CME Control Room, People Authorization (CCAM-001)

Unauthorized Access	Unauthorized Access	Unauthorized Access
3 people Last 60 minutes	10 people Last 24 hours	3 people Last 7 days

I'll help you understand trespass patterns and get details on the latest trespass notification. Let me gather that information for you.

Fetching notifications

Last Agents

Based on the past 7 days of data, here's what I'm seeing for trespass patterns:

Trespass Patterns
You've had 11 trespass incidents in the past week, falling into two categories:

- Unauthorized Trespass (No PPE) - 7 incidents
 - High priority alerts indicating people on tracks without proper safety equipment
 - Most recent: Today at 15:39
- Authorized Track Access (PPE detected) - 4 incidents
 - Medium priority - workers with proper safety equipment detected on Track 1
 - These are logged for safety compliance

The incidents are spread throughout the day, with a slight concentration during midday-to-afternoon hours.

Latest Trespass Notification
Time: Today at 15:39 (about 12 minutes ago)
Type: Unauthorized Trespass on Track - High Priority
Details: Person detected on the track without PPE, posing a serious risk to safety.

Ask me anything...

START WITH A 20 MINUTE DISCOVERY SESSION

See SIYTE in action

See how SIYTE utilises CCTV Analytics and IoT Sensing to deliver insights and understanding of your physical world.



BOOK A DISCOVERY SESSION



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