

# AUTONOMOUS SECURITY SURVEILLANCE

The system derives physical security intelligence (PSI) to enhance the situational awareness of private facilities and military bases. Facilities can employ data- and event-driven applications that use artificial intelligence models and rule-based analytics to process data, providing live security intelligence dashboards, real-time alerts and general situational awareness.

## Why is this important?

- New digital threats are emerging, with criminals becoming more sophisticated;
- Protecting critical infrastructure, assets, intellectual property, business trade secrets and personnel is essential for any successful organisation; and
- Security incidents are often identified after they occur. However, immediate security intelligence can lessen response times.

## Research areas

The CSIR is developing computer vision algorithms to automate video surveillance, equipped with data analytics applications that process data from security systems. This is useful for:

- Detecting problems before they happen;
- Searching hundreds of hours of video footage for forensic purposes; and
- Collating and validating information from multiple data sources.

## Features:

- Flag and report suspicious activities and non-compliance in real time;
- Perform distributed video analytics on CCTV infrastructure;



- Generate tailor-made data analytics and insights;
- Track people from distributed cameras;
- Use novel body recognition models to restrict and track people in different areas of facilities;
- Understand scenes – objects, people and their actions;
- Ensure Occupational Health and Safety: Fire and Smoke detection, PPE compliance, etc.; and

**Contact:** Simphiwe Mkwelo | **E:** Smkwelo@csir.co.za | **www.csir.co.za**



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Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



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