TECH OFFER

Smart Cities Video Analytics Via Cctv

KEY INFORMATION

TECHNOLOGY CATEGORY:
Infocomm - Video/Image Analysis & Computer Vision
Infocomm - Video/Image Processing
Infocomm - Artificial Intelligence
Infocomm - Smart Cities

TECHNOLOGY READINESS LEVEL (TRL): TRL9
COUNTRY: SINGAPORE
ID NUMBER: TO174326

OVERVIEW

This technology is intended to address the need of smart cities goals, by providing a video analytics solution that could enhance efficiency and sustainability of human traffic management.

The technology contains two branches:

- Smart infrastructure branch provides video solutions for airport management by:
  - Monitoring the length of taxi lines and detecting suspicious behaviour of travelers.
  - Detecting roadblocks and accidents so as to better manage traffic flows.
  - Additionally, if the algorithm embedded in the CCTV camera noted suspicious vehicular activities, the technology can support in detecting the car model, its travelling speed and registration plate for further tracking.

- Smart public services branch provides technology for managing crowd control by:
    - Monitoring queues and large groups.
    - Alerting crowd controllers or authorities if a crowd or a queue exceeds assigned threshold limits.
    - Detecting violence e.g., a fight breaking out or suspicious behaviour such as camera tampering.

TECHNOLOGY FEATURES & SPECIFICATIONS

With regards to products, this technology can be utilised to create a safer, cleaner, more efficient environment.

Some technical specifications for consideration:

- Allows for on-premises, on-cloud or hybrid cloud-to-edge deployments
- Minimal hardware requirements and short deployment times
- Enable analytical ability in each CCTV camera in a simple plug-and-play fashion
- Highly scalable and robust platform
- Continuous online learning for future-proof performance
- Draw critical insights from detailed dashboards

POTENTIAL APPLICATIONS

The technology covers a wide range of CCTV based video analytics for safety and surveillance activities such as:

- Activity: Graffiti, vandalism, littering, fighting, jaywalking, eve teasing, intrusion etc.
- Person: Face recognition, demographics, clothing, mask detection, social distancing etc.
- Vehicle: Number plate, tracking, parking management, speeding, traffic violations etc.
- COVID related: Mask detection, social distancing violation, thermal camera analytics etc.

BENEFITS

Around the clock monitoring of camera feeds with AI technology will increase the level of capability for better management of human traffic flows and apply mitigation strategies to preempt accounted for adverse events.