

Leveraging AI to gain more insights from your video

For operational, business, and security intelligence

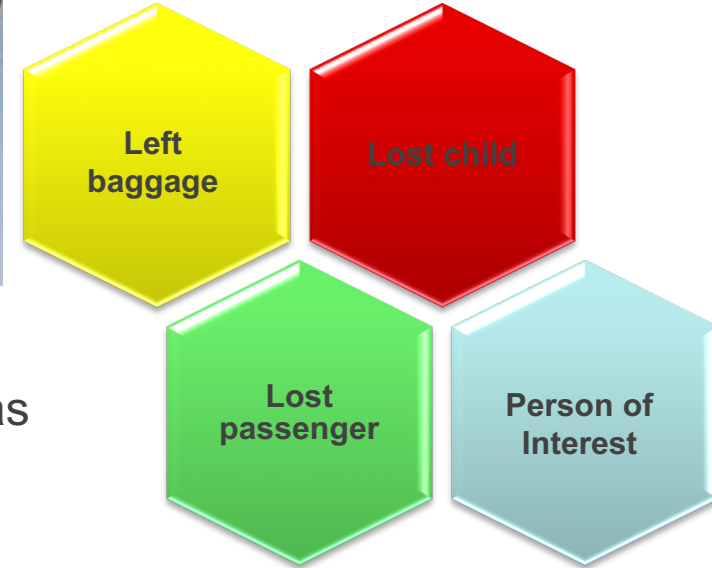
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Issues of CCTV Cameras Operation



- If there are 100's of CCTV cameras
 - How do operators monitor 100's CCTV cameras simultaneously in real time?
 - How do operators find a target person from recorded video (1,000's hrs/day)?
- How to respect EU privacy regulations which often mean that we cannot search using biometric (facial) data?

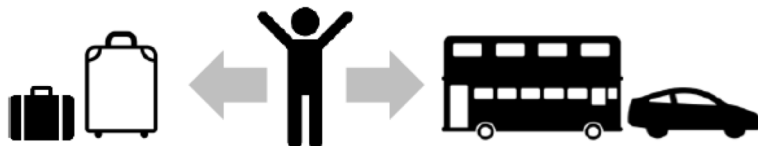


MPS-AI can help !

Multi-Perspective Search with Artificial Intelligence

Advantages of MPS-AI

- MPS-AI can find the POI **without facial** images
 - Reduce privacy invasion risks
 - Find the backside / topside images
 - i.e. multiple image searching
 - Fast-response (less than 20ms)
 - Expandable to type of object other than person

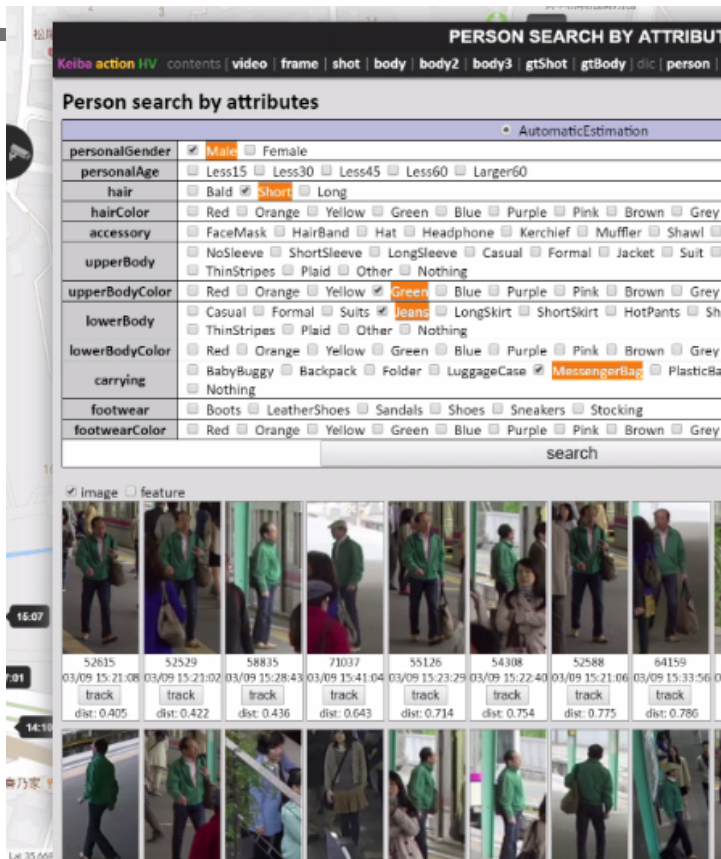


■ Search from attributes

- Lost kid wearing yellow coat and jeans pants
- “I was groped by a man with green jacket”
- Attendance analysis (e.g. number of kids vs. adults)
- Safety (wearing helmet or not)
- Detect person carrying large objects (possible bomb)

■ Search from Behavior

- Look for e.g. people running



Person tracking: search for a given person across cameras

The screenshot displays the MPS-AI interface for person tracking. The main components are:

- PERSON SEARCH BY ATTRIBUTES:** A panel on the left for searching by various attributes. It includes a table with columns for personal, upperBody, lowerBody, carrying, footwear, and footwearColor. The table lists various attributes and their values, such as personalGender (Male), personalAge (Less15), hairColor (Red), and footwearColor (Red).
- PERSON TRACKING:** A panel on the right showing a target person's image and a heatmap of deep features for tracking. It includes a table for attributes and a target image.
- Near area map:** A map showing the current location and a red circle indicating the search area. A red circle highlights a specific area on the map.
- Camera views:** A grid of camera feeds showing the person's movement across different cameras. A red circle highlights a specific camera view.
- Timeline:** A horizontal bar at the bottom showing the sequence of camera views over time. A red circle highlights a specific point in the timeline.

Red circles and arrows highlight the search area on the map, the person's image in the tracking panel, and the camera views, indicating the flow of information and the search process.

MPS-AI Use Case Examples

MPS-AI Camera K1715 Datetime 01/24/2018 00:03:30 Duration 5 Load Report 17/04/2018 02:45:14 HITACHI Inspire the Next

Layout Tag OFF ON Search Frame Candidates Query

00:00:00 00:05:06 3 months ago 3 months ago

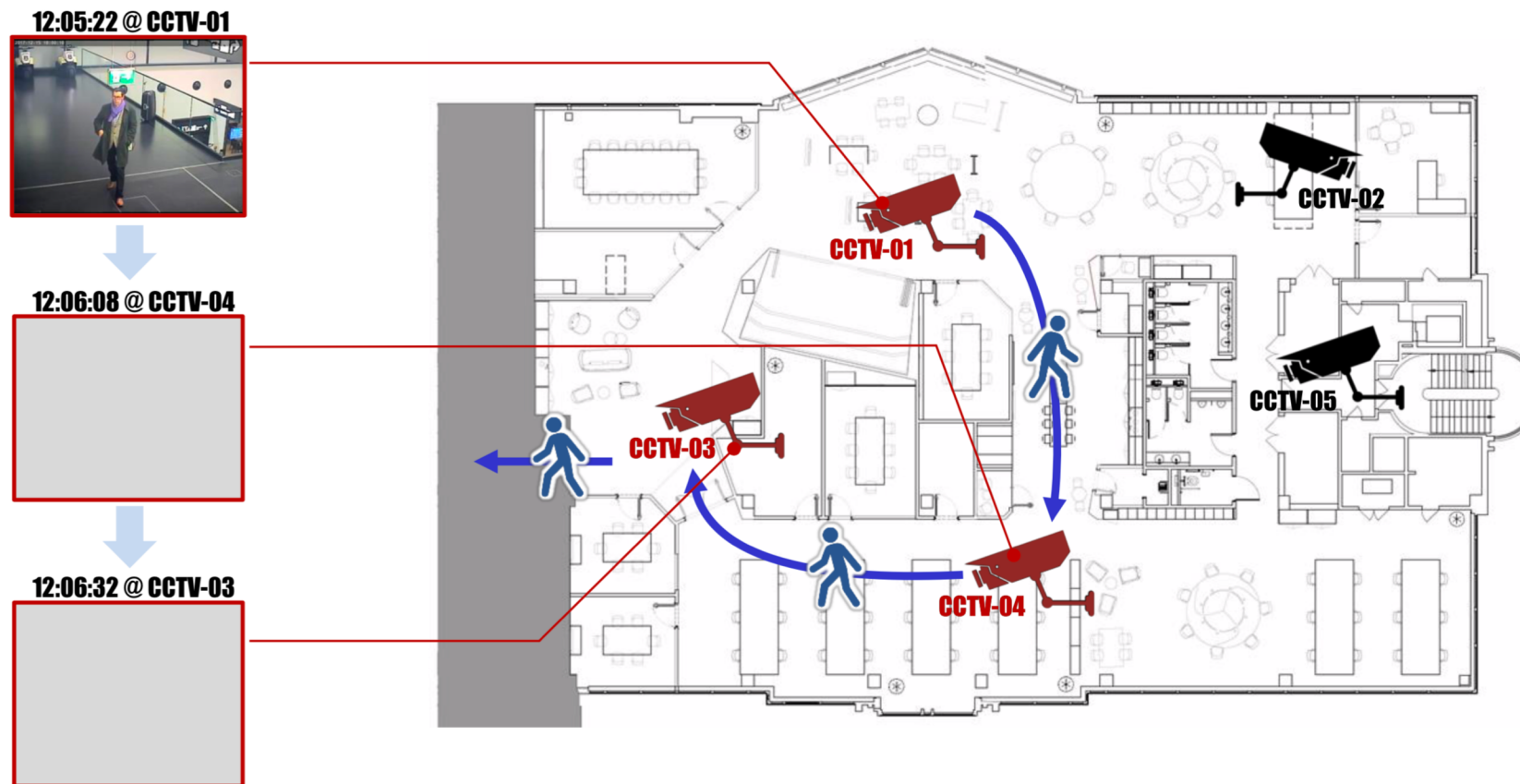
Live Camera Search Results All Icon Number 01/21/2018 00:00:00 00/00/0000 HITACHI

00:01:30 3 months ago 00:04:04 3 months ago

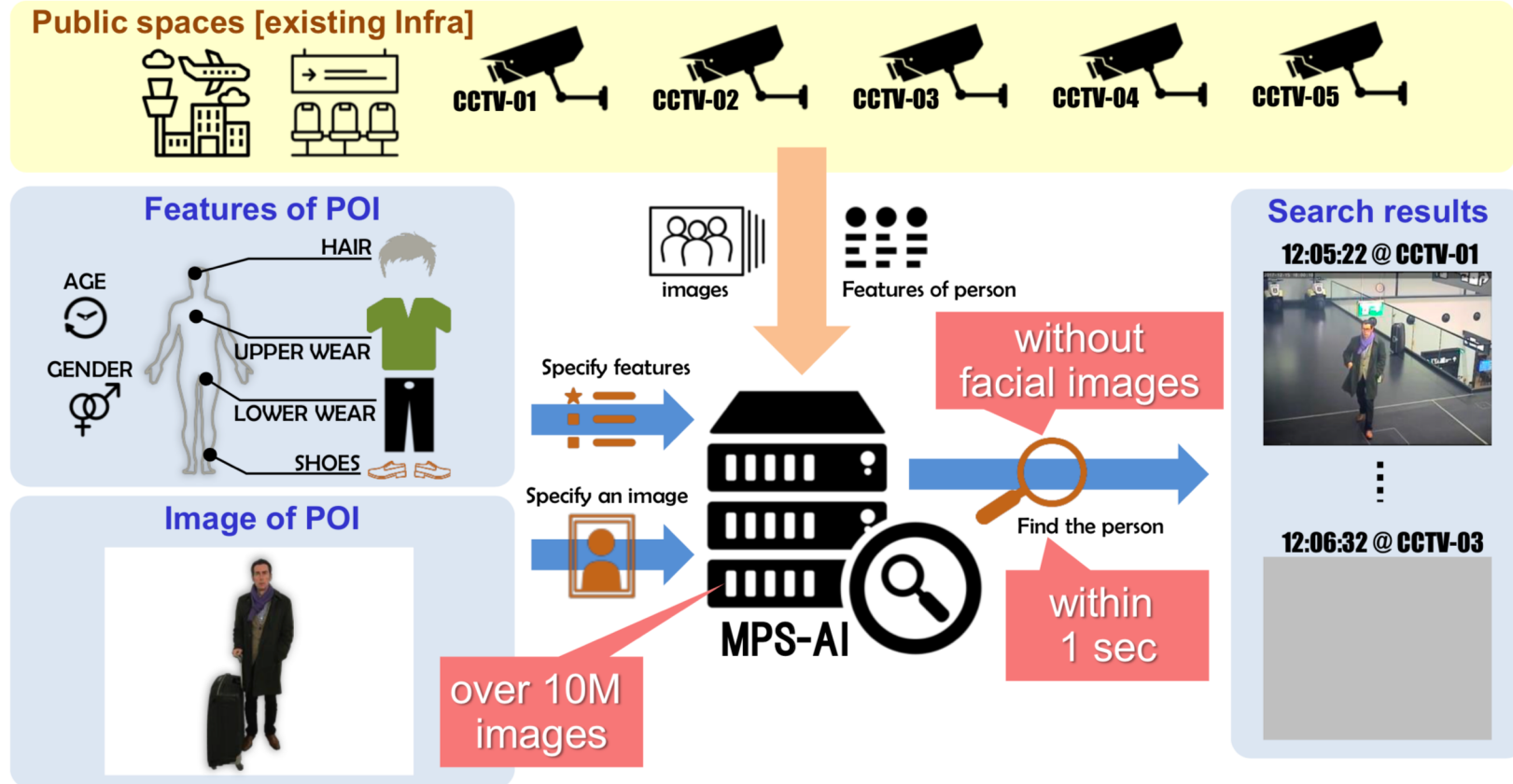
Camera ID:

Camera K1715 3 months ago K1704 3 months ago K1711 3 months ago K1711 3 months ago K1714 3 months ago K1711 3 months ago

MPS-AI: Use Case People Tracking



MPS-AI: How it works



Thank You