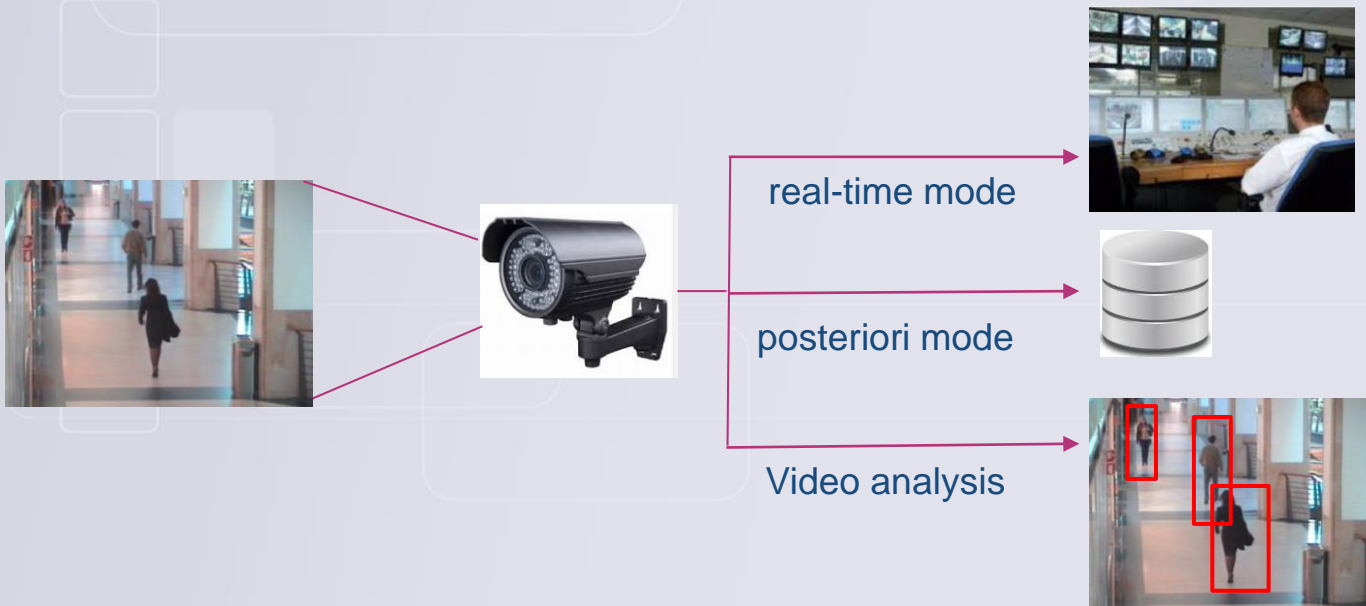# Person re-identification
Yiqiang CHEN

Context

- **Serious security situation: terrorist threat, crime**
- **Increasing number of video surveillance**
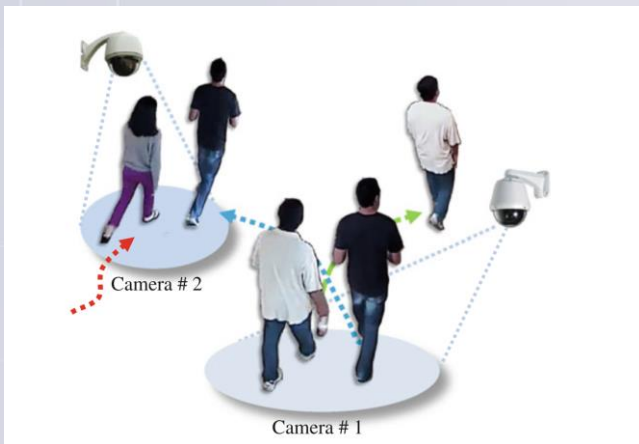- **Goal of increasing public security**

Intelligent Camera

- **A large number of video generated**
- **Infeasible to achieve by manpower**
- **Demande of automatical analysis**

real-time mode

posteriori mode

Video analysis

Re-identification

- **Network of non-overlapping cameras**
- **Match a probe person against a set of gallery persons extracted in the video of another camera**

Matching rank

Challenges

Appearance variation
- Viewpoint variation
- Human pose variation
- Illumination variation

Low resolution
- Face recognition impossible

Crowded scene
- Occlusion
- Numerous candidates

Semantic context

- **Middle level features**
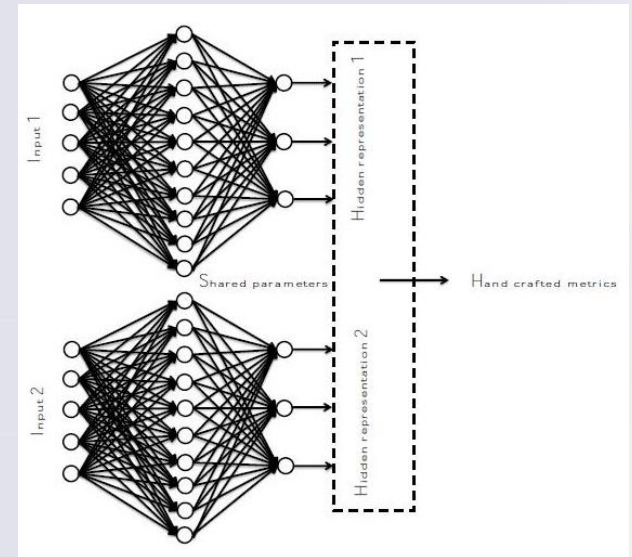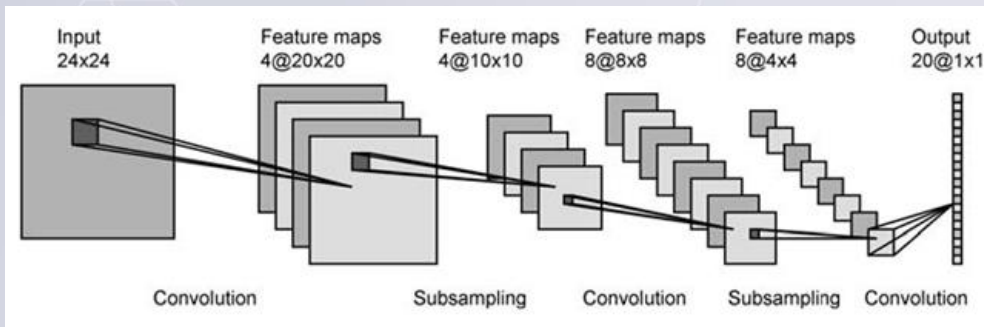 - Semantic Attribut: properties observable in images that have human-designated name

Long sleeve Short sleeve Backpack Satchel Shorts Skirt

- Group

- **Zero-shot re-identification**

Deep learning

- **A branch of machine learning to model high-level abstraction by multiple non-linear transformations**

- Convolutional neural network

- Siamese neural network

Merci de votre attention