AUSTRIAN INSTITUTE OF TECHNOLOGY
TOMORROW TODAY

OBSERV3D SMART INTRUSION DETECTION

ACCESS CONTROL SOLUTION

OVERVIEW

Observ3D Smart Intrusion Detection is a software solution targeting high-security access control scenarios. It is based on a stereo camera and 3D-enhanced image processing. Key benefits are protection against tailgating or any malicious infiltration into an observed area (e.g. by an intruder). The solution is developed for robust high-security applications such as military access control gates.

Figure: Detection of an intruder

KEY FEATURES

- System output: number of persons detected, regions within the observation area that contain any intruders or inadmissible objects, and live camera views
- Detection of any forbidden access attempts and hazard situations including intruders or any inadmissible objects
- Robust and reliable human counting due to highly sophisticated human detection and tracking algorithms
- Highly robust against varying environmental conditions (e.g. rapid changes in lighting situation) by analysis of high-quality 3D information
- Multiple configuration settings such as region of interests and minimum person's height
- Functionality is offered as a web service, which allows a distributed concept having analytics and user interface on separate physical machines
- Easy integration into existing systems due to the RESTful interface using JSON

REQUIREMENTS

- Ethernet stereo camera (Gigabit, Power over Ethernet)
  - -) mounted above the scene, camera lenses pointing straight down
  - -) camera mounting height: 2.6 – 4.0 meters
  - -) minimum required distance between persons' heads and camera: 0.50 meters
- Operating system: Microsoft Windows 7/8.1 64 bit
- Individual configuration of the algorithm for each setup (e.g. mounting height, region of interest)

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