

Advanced Image Analytics

# Behaviour Detection Solution

NEC's highly efficient Image Analytics can automatically detect abnormal behavior such as intrusion, loitering and object abandonment from camera's live video feeds for a safer environment.



## Benefit

### Limited Manual Monitoring

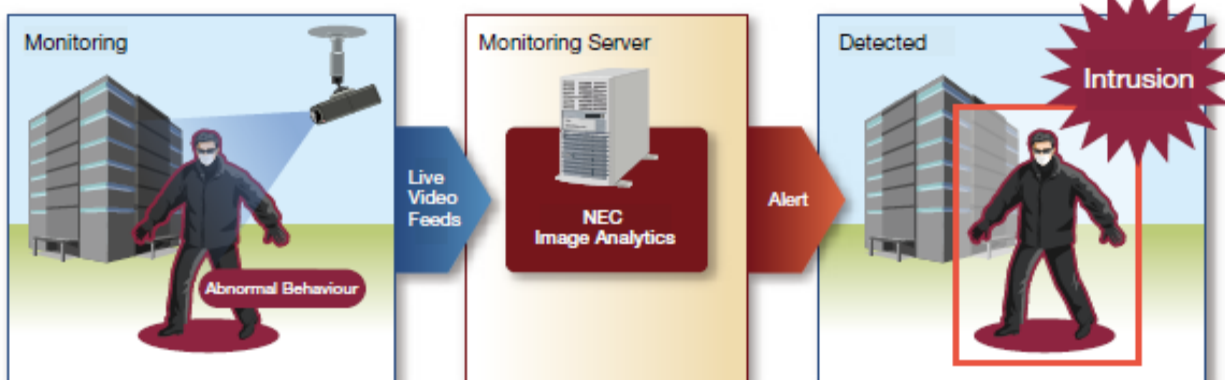
- ❖ **Manpower Cost**  
Number of required manpower usually increases with the number of installed cameras for manual monitoring. Also there is a limit of how many one can monitor at the same time
- ❖ **Higher Risk**  
Decline in concentration due to fatigue and carelessness in manual monitoring can lead to misses in detecting abnormal acts or person of interest

### Improved Monitoring

- ❖ **Cost Effectiveness**  
Smarter way to manage cost. Associate cost to higher security with increasing amount of cameras instead of bigger back-end operations that also requires bigger operational room
- ❖ **Raises Security**  
Automate detection and flagging of abnormal acts or person of interest from large amount of video in real-time. Effectively raises security & reduces misses or errors by human

## Characteristics

Detect moving objects in real time. Automatically recognize person, vehicle or other object and track them to detect any abnormal behavior



Supports 3<sup>rd</sup> party cameras. Existing cameras can be used to enhance monitoring.

No special hardware required. ONVIF® compliant.

Alert notification by GUI or sound. Image at the time of detection is recorded by further investigation.

## Improve monitoring process with various behaviour detection technology

Early detection of problems and prevention of oversights can be realized effectively by monitoring places where abnormalities may occur.

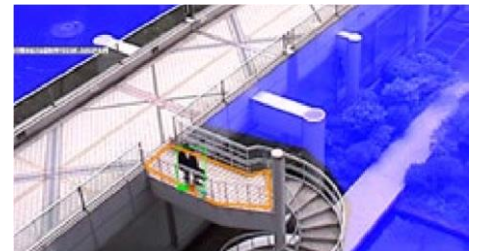
### Behaviour Detection Technology



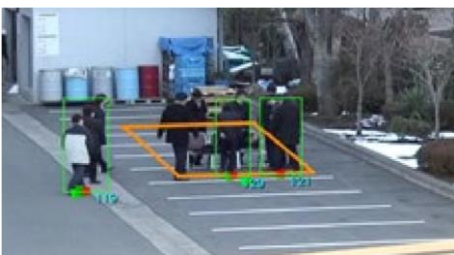
● Intrusion



● Left Object



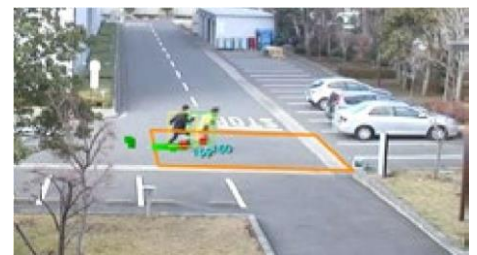
● Loitering



● Crowd



● Fallen Person



● Sudden Running

● Other applications include people or vehicle counting, speed detection, etc.

### Scenario analysis made possible with combination of several detection

Use Cases
<ul style="list-style-type: none"> <li>• Critical infrastructure protection</li> <li>• Railway track intrusion</li> <li>• Snatch theft prevention</li> <li>• Illegal parking in restricted zone</li> </ul>
<ul style="list-style-type: none"> <li>• Loitering outside bank</li> <li>• Illegal object removal</li> <li>• Illegal entry into hazardous zone</li> <li>• Overcrowding</li> </ul>

### Graphical User Interface

Easy to define rules, scenarios and regions

