

OUR PRODUCT

XIntelligence – People Counting
Attributes
Event Detection
Emotion Expression



XjeraLabs People Counting Technology

XjeraLabs People Counting technology - XIntelligence is an application that detects and locks on a person and counts the number of people passing through a line or by face recognition from a camera install at a directional angle.

- XjeraLabs specializes in high density crowd people counting in both indoor and outdoor scenarios.
- Confident to provide the best high density people counting solution in Singapore and the APAC region.
- Able to achieve Accuracy 88% of the scenes, 95% after re-configuration.
- The base system has been deployed at a theme park in Singapore.
- Winner of IMDA Singapore inaugural Video Analytics Tech Challenge 2015

The system could also detect the person dwelling in specific location and automatically calculate the dwell time.



Figure 1 by Area counting



Figure 2 by Line counting

XjeraLabs Event Detection Technology

XjeraLabs delivers highly accurate real-time event detections to help eliminate the need to rely on the system operator. Below is the summary of XjeraLabs' capabilities of various type of event detection.

People	Vehicle	Object
Intrusion	Illegal parking	Abandoned objects
Tailgating	Stationary vehicles	
Loitering	Slow moving/static traffic	
Crowd movement	Illegal turns	
	Reverse driving	

Videos to Insights

XjeraLabs Attribute Detection Technology

With further development of XIntelligence, Attribute function has been added to the in-house developed software. As a result of the powerful attribute detection engine, the software is able identify 11 different people attributes:

- male/female; long/short hair; with or w/o glasses; with or w/o hat; with or w/o T-shirt; short/long sleeves; with or w/o jeans; with or w/o shorts; short/long pants; with or w/o pattern, fight;

and 3 different vehicle attributes:

- car make; car speed; car color

Performance: 70ms response time of results return based on testing on NVIDIA GTX 1080 with accuracy more than 90%



Figure 3 Helmet Detection
System deployed in Chongqing, China for a Construction Company



Figure 4 Illegal Parking Detection
System deployed in various CapitaMall shopping centers

XjeraLabs Emotion Expression Technology

Key-Features / Advantages of XjeraLabs Emotion Expression Technology

- Trained on a psychologically-validated training set
- Differentiates between subtle changes in expression intensity
- Differentiates between subtle expression variations
- Estimates the head-pose of a face

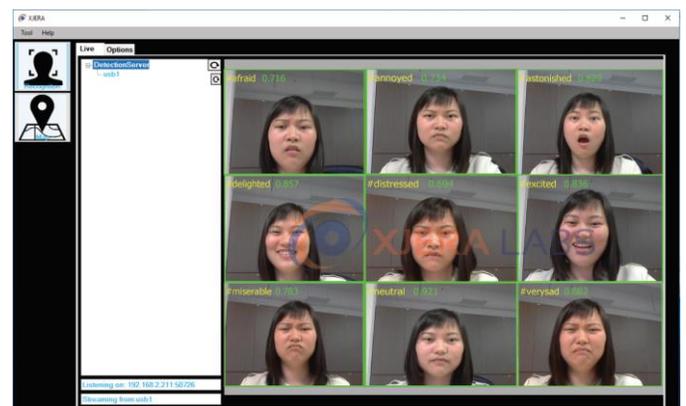


Figure 5 Emotion Expression