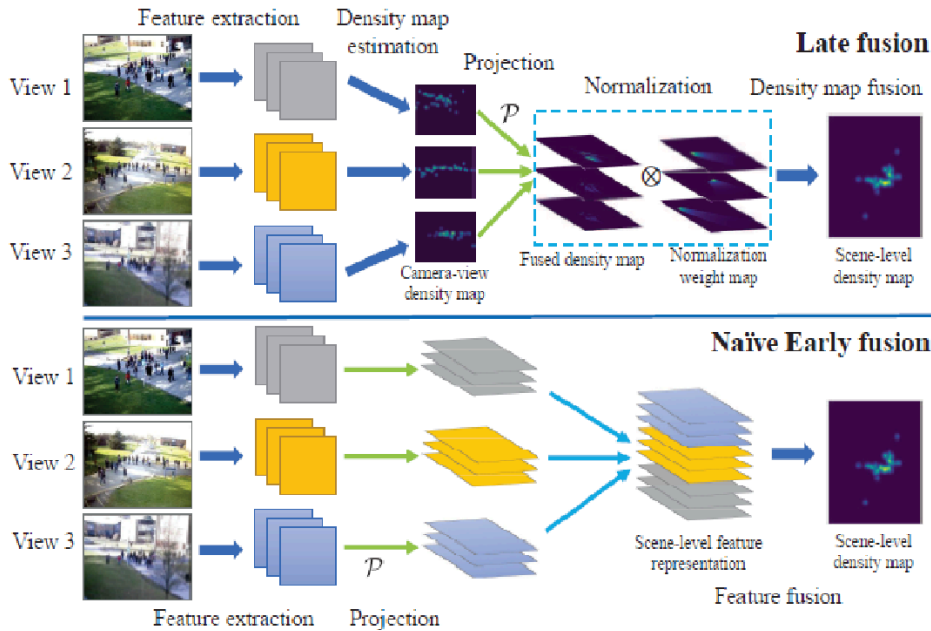


# System and Method for Counting Objects

Communications & Information

Computer/AI/Data Processing and Information Technology



## Remarks

Inventions Geneva  
Evaluation Days (IGED)  
2022 - Silver Medal

## IP Status

Patent granted



Technology Readiness  
Level (TRL) ?

3

Inventor(s)

Prof. CHAN Antoni Bert

Dr. ZHANG Qi

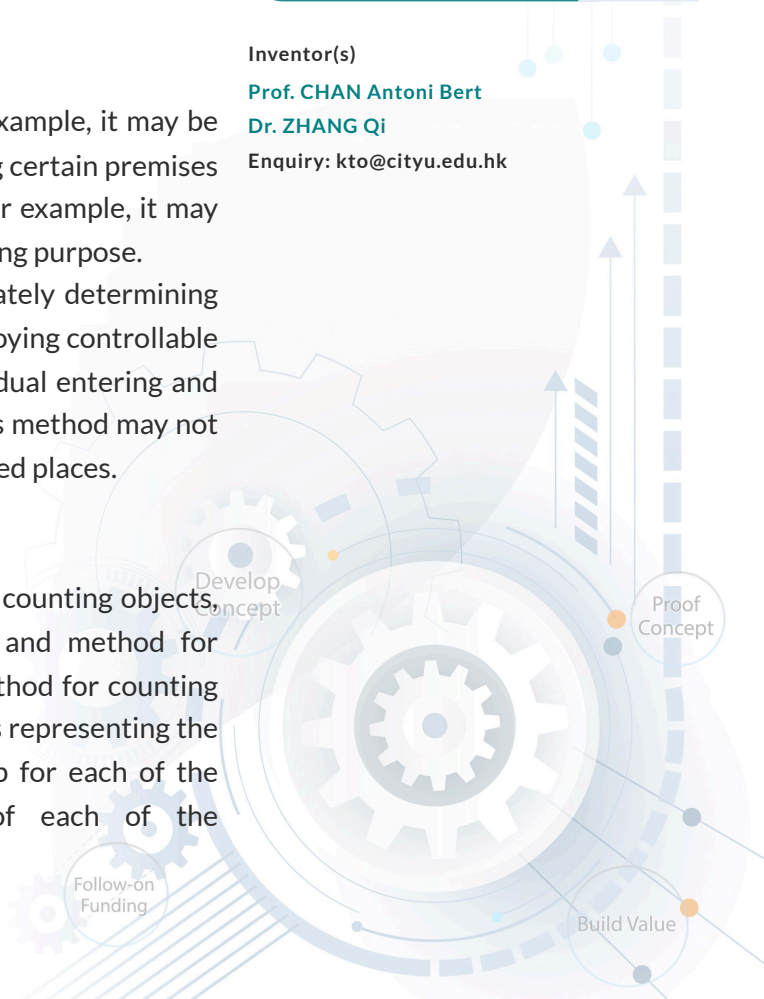
Enquiry: kto@cityu.edu.hk

## Opportunity

Crowd counting may be useful in many applications. For example, it may be necessary to count a number of people entering and leaving certain premises to estimate a ventilation need in an indoor area. In another example, it may be useful to estimate occupancy in a retail store for marketing purpose. Different method may be used to estimate or even accurately determining the number of people in an area. A simple way may be deploying controllable gates at entrances and exits of such area, such that individual entering and leaving the area will be recorded by the gate. However, this method may not be suitable for applications with large counts or very crowded places.

## Technology

The present invention relates to a system and method for counting objects, and particularly, although not exclusively, to a system and method for counting number of people in an area. A system and a method for counting objects includes the steps of: obtaining a plurality of images representing the objects to be counted in a target area; generating a map for each of the plurality of images representing an identification of each of the



corresponding objects; and fusing the plurality of maps being generated to obtain a scene-level density map representing a count of the objects in the target area.

## Advantages

- Learn the feature extractors and fusion stage in end-to-end training
- Estimate the spatial arrangement of the crowd on the ground plane

## Applications

- Crowd management
- Public safety
- Traffic monitoring or urban planning

