

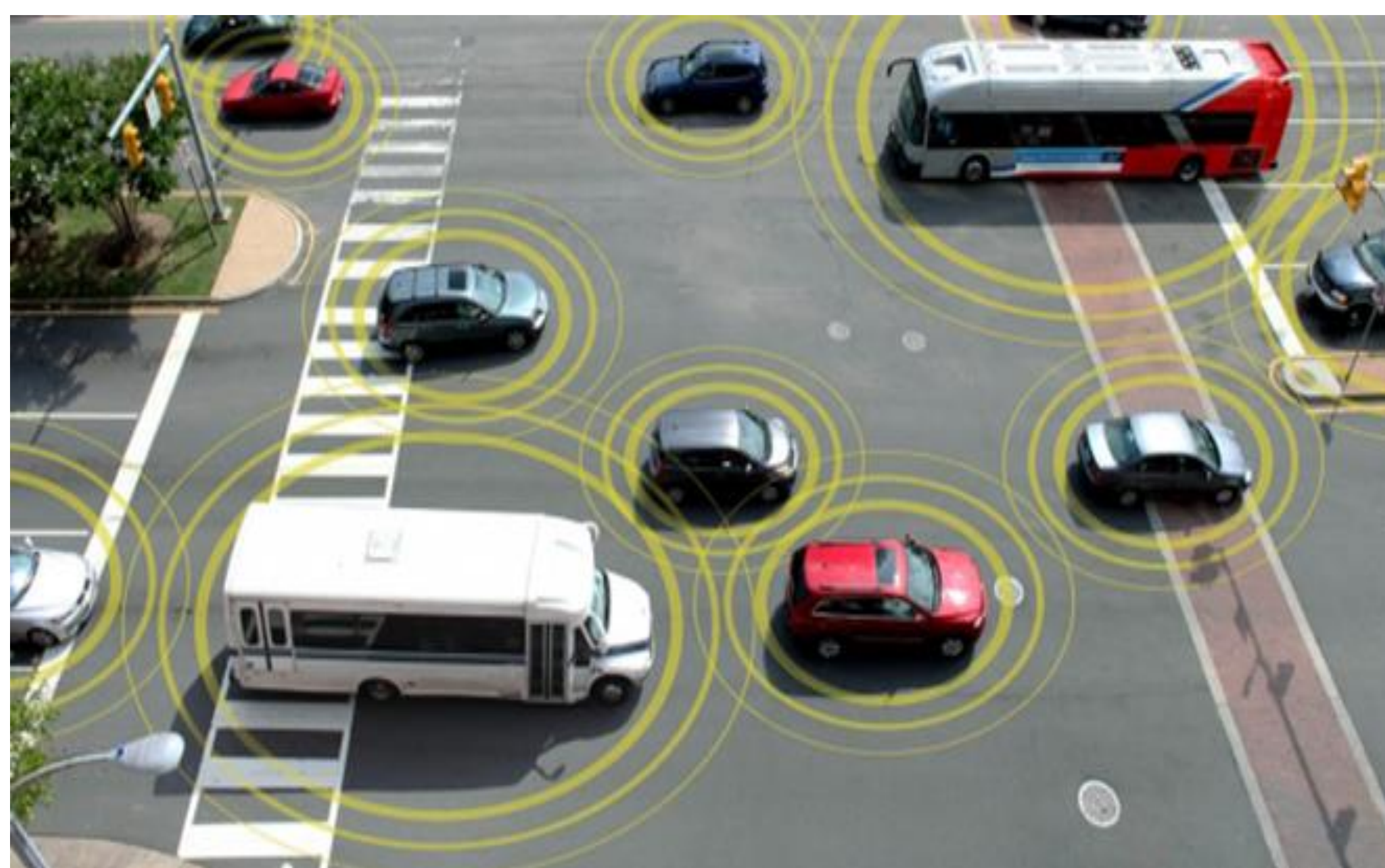


Rear Eye Vision for Enhanced Safety in Autonomous Navigation

Objective

To Enhance safety of Autonomous Navigation by providing efficient rear end camera system that could predict the direction of the oncoming vehicle and change the navigation of parent vehicle appropriately.

Motivation

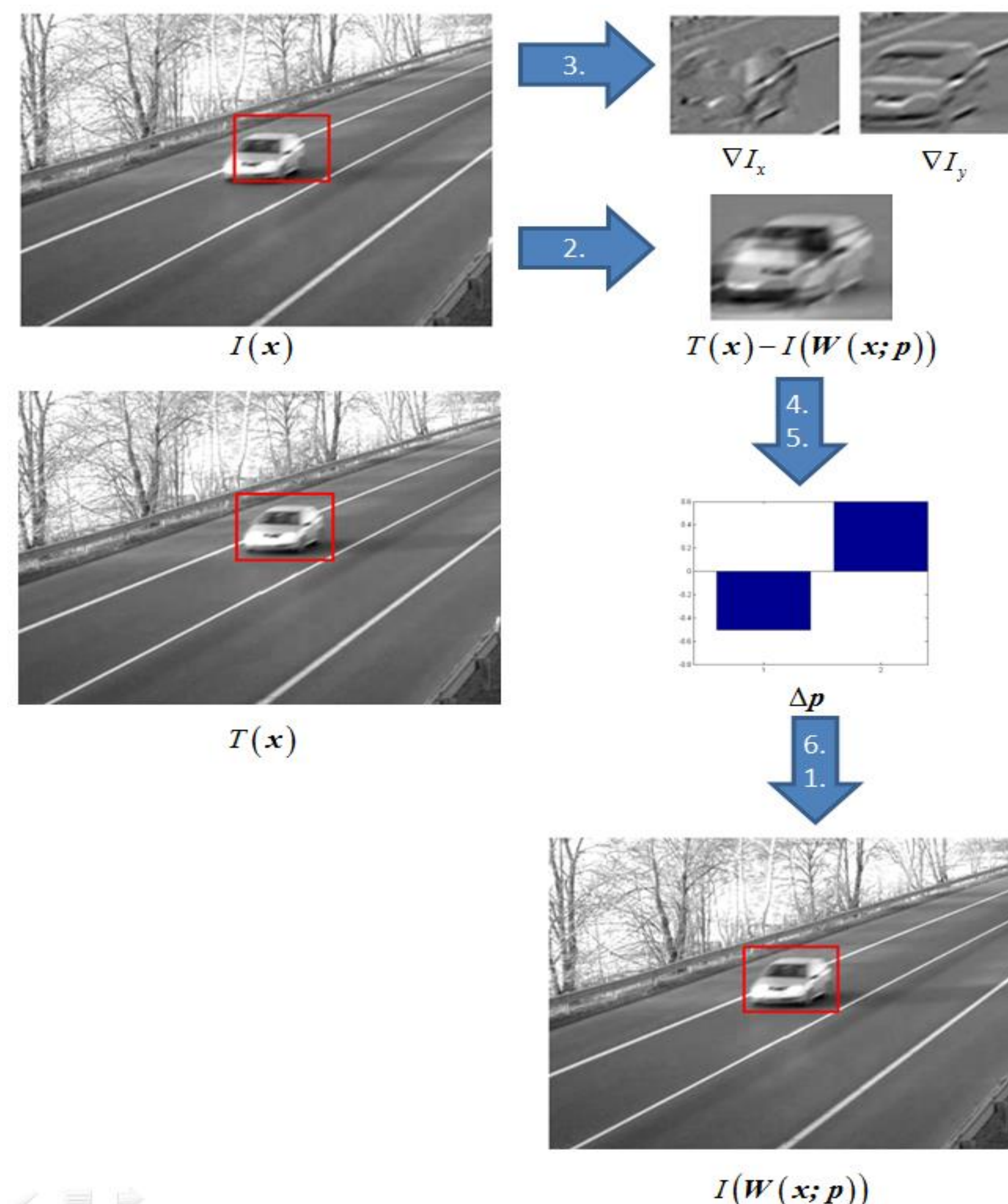


Rear end traffic crashes are increasing alarmingly and these can be prevented by using an efficient rear end camera system.

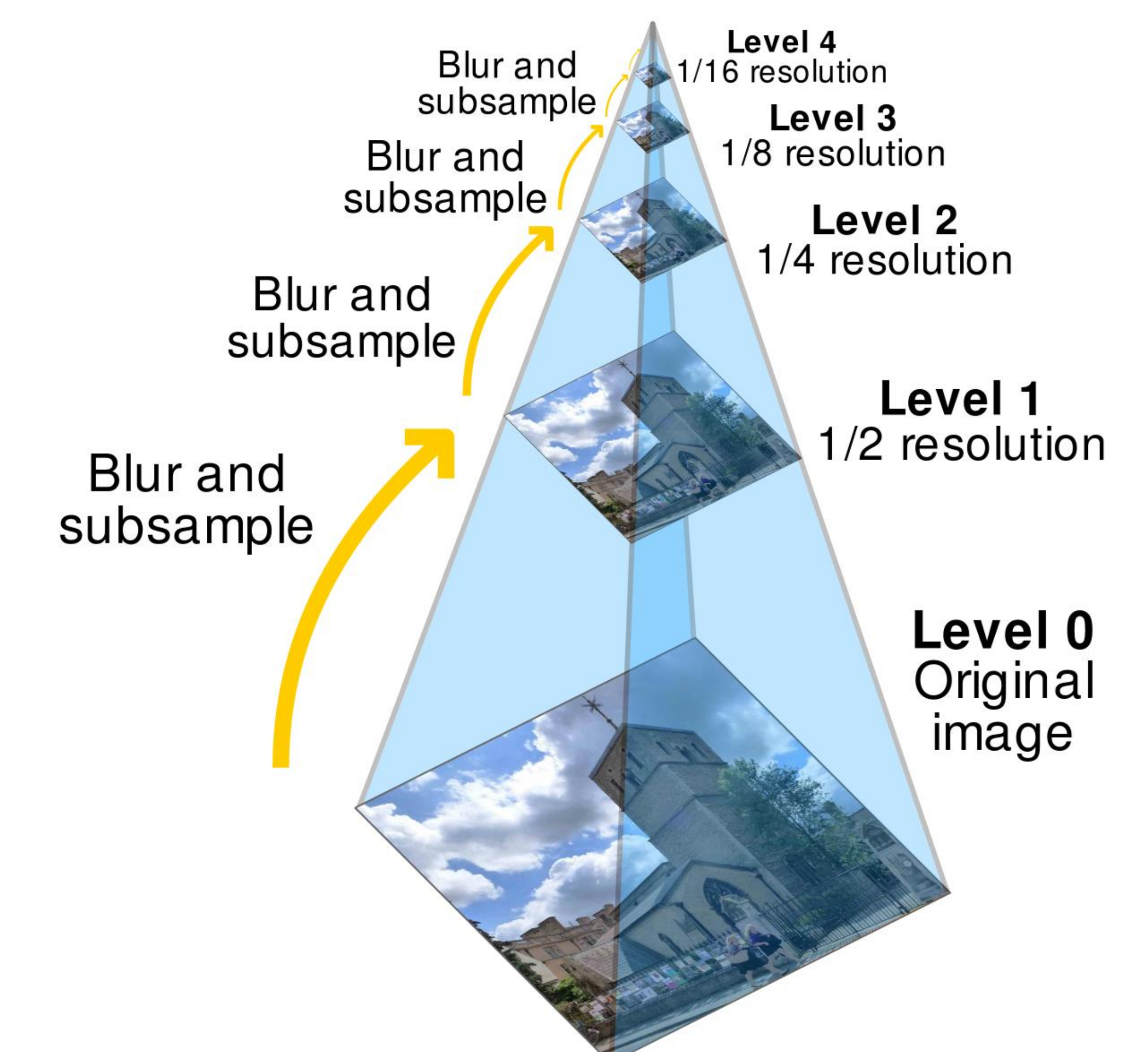
Proposed Scheme

Object tracked:

- Optic flow calculated
- Modified KLT used
- Pyramidal approach for fast moving objects



Pyramidal Approach



- Multiscale representation
- Repeated smoothing and subsampling of image

Applications



- Autonomous vehicles
- Pedestrian safety from rear bicycle attack