

## **MP.7 Key Point Detection**

### Note about the number of keypoints

- HARRIS detected the least number of key points (less than 20). This is due to NMS being used.
- BRISK resulted in the maximum number of points (More than 250)
- The rest are almost the same in the number of key points.

### Neighborhood

- SHITOMASI the size of points is too small and there is almost no overlap
- HARRIS: The size of points is slightly larger than SHITOMASI, but the number of points is too small (less than 20 in the vehicle ahead)
- FAST: Number of points increased again, together with the size, overlap started
- BRISK: Size of points is huge and there is a lot of overlap as well as concentric points
- ORB: Size of points is huge too (like BRISK), many of them have the same center
- AKAZE: Points are small to medium in size, but there is a noticeable overlap
- SIFT: Mixture of large and small points, few cases of overlap

## **MP.9 - Top 3 Detector Descriptor**

Based on the total time for detector and descriptor, the following are the best (in order)

- 1- FAST / BRIEF
- 2- FAST / BRISK
- 3- FAST / ORB

After them comes ORB

- ORB / BRIEF
- ORB / BRISK