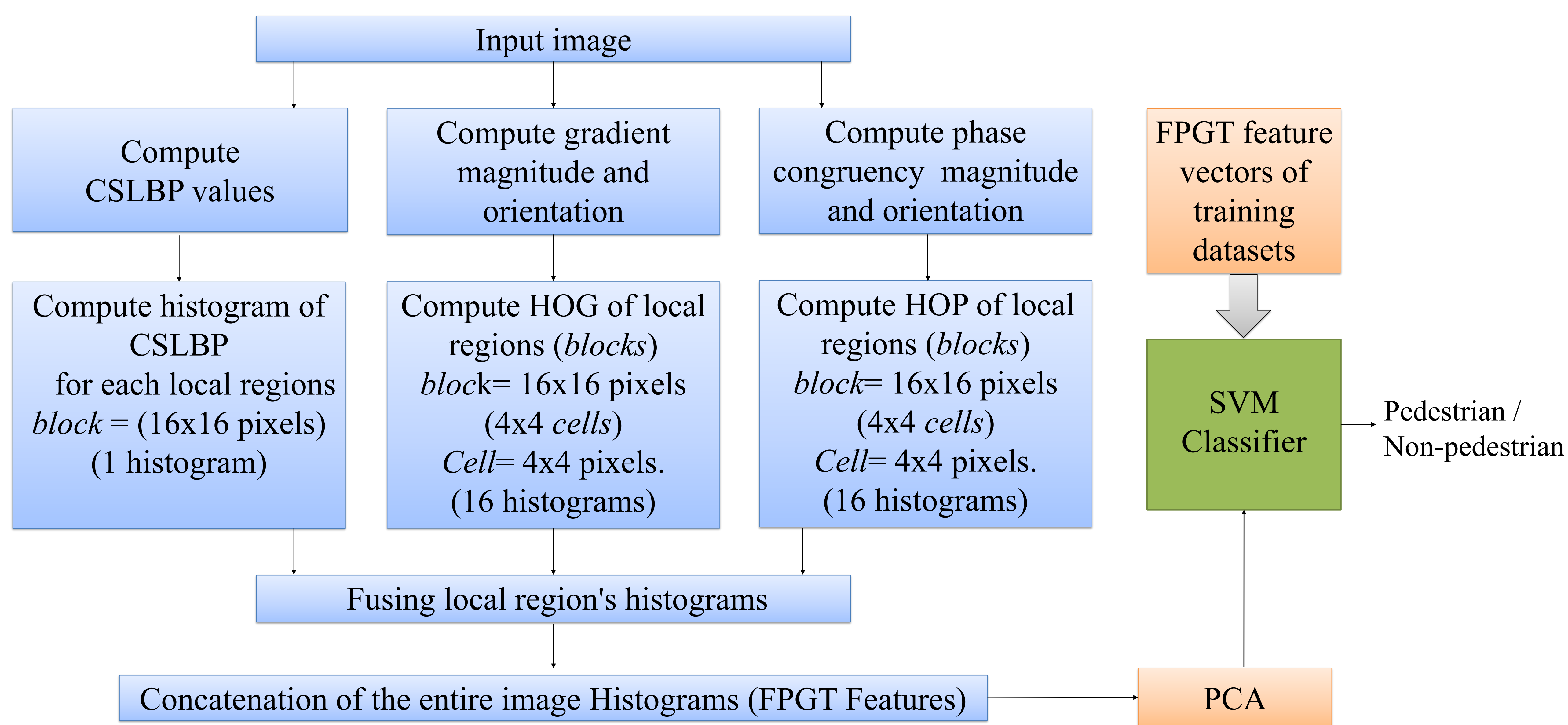


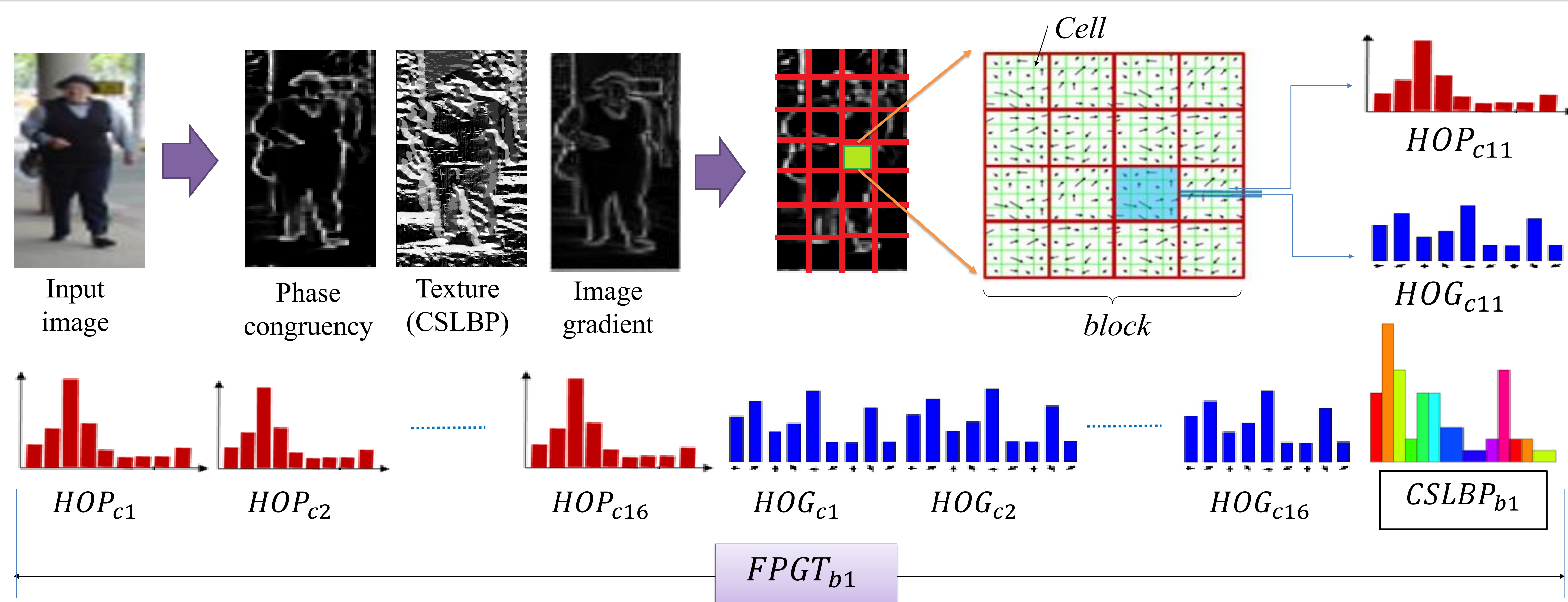
## Introduction

- For improvement of pedestrian detection performance we propose a new descriptor that fuses the local phase information, image gradients, and texture features in one descriptor and is denoted as fused phase, gradient and texture features (FPGT).
- The fusing of these complementary features yields the ability to localize a broad range of the human structural information and different appearance details which allow to more robust and better detection performance.

## Framework of pedestrian detection system based on FPGT descriptor



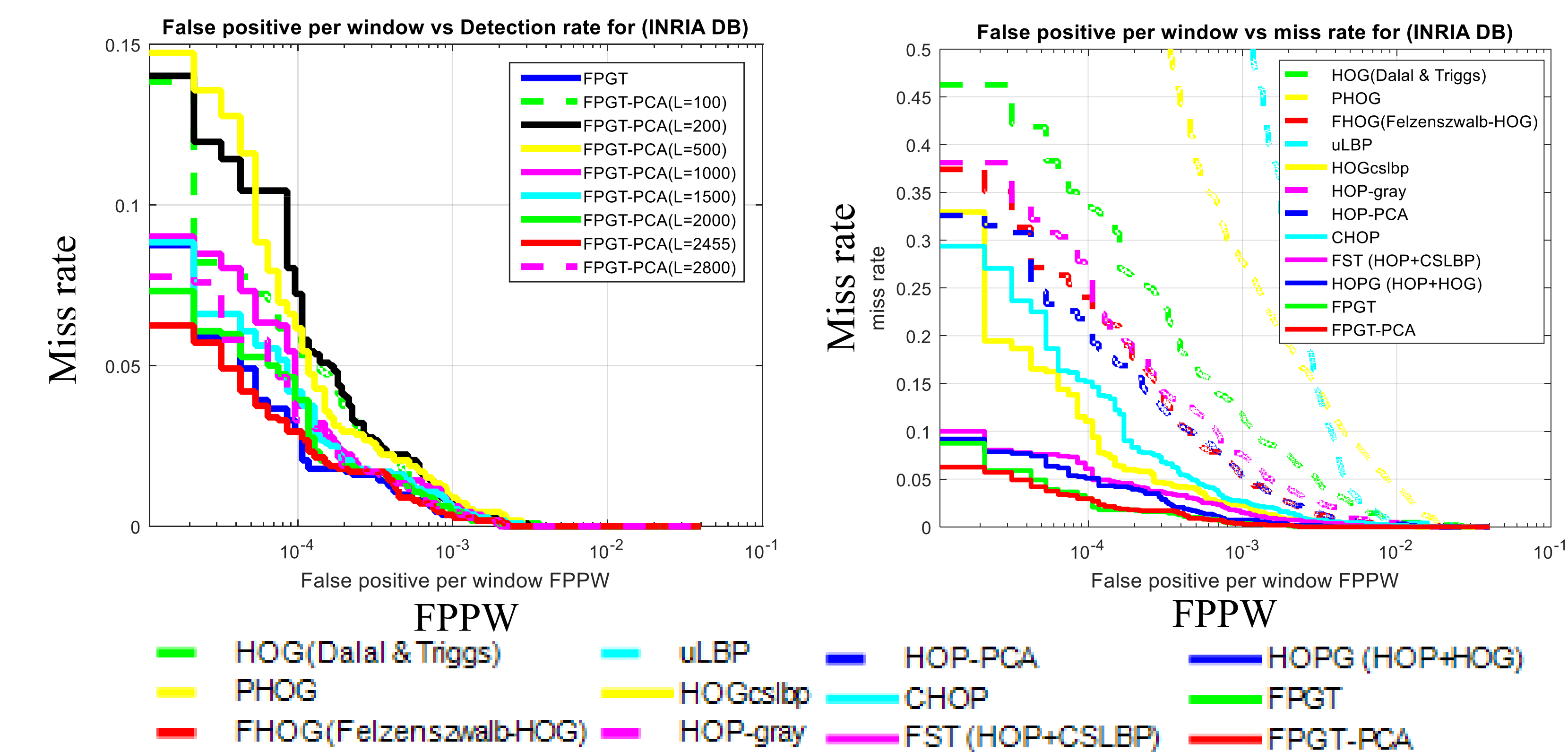
## FPGT features



## Experimental Results

The dimensionality of the proposed FPGT vector is reduced from 9728 to only 2455 elements using PCA.

- Experiment-1:** Evaluation of the proposed descriptor using INRIA dataset.



- Experiment-2:** Evaluation of the proposed descriptor using DaimlerChrysler dataset.

