**Computer Vision**

**Assignment – 5**

**Programming Question – 1**

1. A large template\_half\_window (15) is chosen so as to smoothen the erratic and noisy direction changes. However, the search\_half\_window (7) is size is still kept small to minimize the running time. Ideally, a bigger search window would definitely improve the flow.
2. It can be seen that in areas without any information a lot of erratic flow is observed this is because there is nothing to compare to in the second image. The algorithm essentially matches with any arbitrary template in the search window in the second image.
3. An absence of arrows towards the corners of the image is observed, as the algorithm ignores those regions while searching in the second image rather than padding the image.

**Programming Question – 2**

While tracking it was observed that it was essential to have a very fitted window around the object so as to avoid tracking the background, e.g. In football dataset, it can wrongly start tracking the foot of the person if the starting window is loosely fitted around the football. A weighted template window giving more emphasis to the center would have helped to suppress the background present at the corners of the tracking window.