Dear professor Mr. Rajesh.

My name’s An, my full name’s An Vo Hoang. I live in Ho Chi Minh city, Viet Nam and now I’m 25 years old.

I had studied barchelor in HCM University of Technology (BKU) from August 2011 and graduated in April 2016 with GPA 7.0/10. In November 2015, I secured my thesis “To develop an authenticating system using speech which secure biometric feature pattern in smart mobile devices” (Phát triển hệ thống xác thực bằng giọng nói có bảo vệ mẫu đặc trưng sinh trắc trên thiết bị di động thông minh) with score 9.0/10. In the thesis, I created a system that was built on mobile devices and with that the users must provide their voices to let the system authenticate and grant permission to access device

After graduated university, I have been continue studying Master in HCM University of Technology (BKU) since October 2016 and have researched on Computer Vision. With the knowledge about Computer Vision and supporting from deputy professor doctor Binh Nguyen Thanh, I have done my master thesis “To assign label for moving objects in multiple camera” in 2018. I will secure my thesis at 17 July 2018. My current Master GPA is 7.5/10.

During my study, I have been focused on computer vision, data mining and machine learning. With all knowledge I have gained and my Master thesis, I see it match with your researches. I really want a chance to improve my Master thesis that could solve the problem of tracking multiple objects in multiple cameras with non-overlapping FOV which I haven’t handled at this moment in my thesis yet.

With the problem “tracking multiple objects in multiple cameras system with overlapping and non-overlapping”, I think we could separate into several steps:

* Step 1: detect moving objects in frame using DNN and combine with background subtraction to increase the accuracy.
* Step 2: using DNN and extract features like SIFT, ORG, color, shape, texture...to train deep feature.
* Step 3: track objects:
  + In each camera: create kalman filter for each object to track them.
  + In another camera: using stable matching (GSA) to assign label for objects consistently.
* Step 4: Increase the accuracy of tracking:
  + With two cameras are overlapped: we could use position of objects in FOV.
  + With two cameras are not overlapped: we could use the time, direction and velocity to predict the position of objects in another camera.

So it’s just my opinion and I need to research more and more to make my thinking come true, especially in the real environment with crowded people.