Preliminary work on Task 1 and 2:

1. Identify which data/signal/events are required for the interaction / communication between the trucks

Speed (Accelerate/decelerate)

Path history/location

Brake

Distance between vehicles

Signal strength

Obstacle recognition

Direction

Fuel

Specify an appropriate protocol – Cellular (4G LTE) /Wi-Fi (DSRC) for V2V communication

1. Identify the relevant control behaviour for the trucks

How can the distance to the precedence truck be guaranteed – The distance that should be maintained between the vehicles would be predefined and constantly tracked to maintain the same.

What happen in cases of a e.g. communication failure - > is your system robust / still stable?

If the V2V communication link enables us to use both Wi-Fi (primary) and 4G(secondary), in case of communication loss, the secondary method would be used to communicate critical information.

On complete cut off of communication link, the platooned vehicle would reach its nearest platoon parking centre and park itself

(The locations of parking spots are already loaded in the vehicles)

Since the location of platooned trucks are always known by the Master truck driver, on realizing the last found location and the current location (parked spot), the driver is assured that the truck is safe.