Num of Trains=10 (5 up, 5 down)

 $End_sim_time = 20000,$

 ${\tt getSpottingsNowTime} = 10000,$

peakThres=5 (500 meters both sides)

PosConf calculated for each point at distance of = 100 meters

Starting time gap between trains=30 min (1800 sec)

 $Halt_time_of_Train = 20 sec$

 $Speed_of_The_Train = 14 \text{ m/sec } (50.4 \text{ km/h})$

0.1 No. of passengers=10000

0.1.1 western up route

| Table 1: Ground truth value | | |
|-----------------------------|---------------|--|
| Positions | NearestEstDis | |
| m | m | |
| 15 534.00 | 366.00 | |
| 33602.00 | 17702.00 | |
| 56844.00 | 40944.00 | |
| 81206.00 | 65306.00 | |
| 105 280.00 | 89 380.00 | |

| Table 2: Estimated Value | | |
|--------------------------|-----------------|--|
| Positions | NearestTruthDis | |
| m | \mathbf{m} | |
| 15 900.00 | 366.00 | |
| "AvgPosConf | 0.46" | |
| ${\rm ``MaxPosConf'}$ | 0.46" | |

0.1.2 western down route

Table 3: Ground truth value

| Positions | NearestEstDis |
|------------|---------------|
| m | m |
| 5180.00 | 280.00 |
| 27020.00 | 22120.00 |
| 49974.00 | 45074.00 |
| 74062.00 | 69162.00 |
| 117 642.00 | 112742.00 |

| Table 4: E | stimated Value |
|--------------|-----------------|
| Positions | NearestTruthDis |
| m | m |
| 4900.00 | 280.00 |
| "AvgPosConf" | 0.10" |
| "MaxPosConf | 0.10" |

Num of Trains=10 (5 up, 5 down)

 $End_sim_time = 20000,$

getSpottingsNowTime = 10000,

peakThres=5 (500 meters both sides)

PosConf calculated for each point at distance of = 100 meters

Starting time gap between trains=30 min (1800 sec)

 $Halt_time_of_Train = 20 sec$

 $Speed_of_The_Train = 14 \text{ m/sec } (50.4 \text{ km/h})$

0.2 No. of passengers=10000

0.2.1 central up route

| Table 5: Ground truth value | | |
|-----------------------------|---------------|--|
| Positions | NearestEstDis | |
| m | m | |
| 6286.00 | 44 414.00 | |
| 15202.00 | 35498.00 | |
| 28116.00 | 22584.00 | |
| 33886.00 | 16814.00 | |
| 51074.00 | 374.00 | |

| Table 6: Estimated Value | | |
|--------------------------|--------------------|--|
| Positions | Near est Truth Dis | |
| \mathbf{m} | m | |
| 50 700.00 | 374.00 | |
| "AvgPosConf | 0.00" | |
| "MaxPosConf | 0.00" | |

0.2.2 central down route

Table 7: Ground truth value

| Positions | NearestEstDis |
|-----------|---------------|
| m | m |
| 6084.00 | 21816.00 |
| 15002.00 | 12898.00 |
| 28198.00 | 298.00 |
| 33954.00 | 254.00 |
| 50882.00 | 17182.00 |

| Table 8: E | stimated Value |
|--------------|-----------------|
| Positions | NearestTruthDis |
| \mathbf{m} | m |
| 27 900.00 | 298.00 |
| 33700.00 | 254.00 |
| "AvgPosConf" | 0.03" |
| "MaxPosConf | 0.07" |

 $\label{eq:number_state} Num of Trains=10 \ (5 \ up, \ 5 \ down) $$End_sim_time = 20000, $$getSpottingsNowTime = 10000, $$peakThres=5 \ (500 \ meters both sides) $$PosConf calculated for each point at distance of= 100 meters $$PosConf calculated for each point at distance of= 100$

Starting time gap between trains=30 min (1800 sec)

 $Halt_time_of_Train = 20 sec$

 $Speed_of_The_Train = 14 \text{ m/sec } (50.4 \text{ km/h})$

0.3 No. of passengers=10000

0.3.1 harbour up route

| Table 9: Gr | ound truth value | Table 10: I | Estimated Value |
|-------------|------------------|---------------------|-----------------|
| Positions | NearestEstDis | Positions | NearestTruthDis |
| m | m | m | m |
| 2804.00 | 6996.00 | 9800.00 | 74.00 |
| 9726.00 | 74.00 | 24700.00 | 334.00 |
| 24366.00 | 334.00 | 26600.00 | 2234.00 |
| 32124.00 | 5524.00 | "AvgPosConf | 0.02" |
| 33886.00 | 7286.00 | ${\rm "MaxPosConf}$ | 0.07" |

0.3.2 harbour down route

Table 11: Ground truth value

| Positions | NearestEstDis |
|-----------|---------------|
| m | m |
| 11 000.00 | 1500.00 |
| 18484.00 | 8984.00 |
| 20246.00 | 10746.00 |
| 41154.00 | 31654.00 |
| 43198.00 | 33698.00 |

| Table 12: 1 | Estimated Value |
|-----------------------|-----------------|
| Positions | NearestTruthDis |
| m | \mathbf{m} |
| 9500.00 | 1500.00 |
| "AvgPosConf | 0.02" |
| ${\rm ``MaxPosConf'}$ | 0.02" |
| | |