FORD MOBILITY

NIPP NASSCOM INDUSTRY PARTNERSHIP PROGRAM

Scheduling and Monitoring Movements of Vehicle

Overview:

How might we better predict and plan vehicle movements in the Indian cities, ensuring on-time pick-ups?

Factors that Influence the Variability in the Real World:

- Traffic Condition – sudden/unexpected changes. Ex. a delay in a toll booth may take up to 5 minutes easily.
- Driver Behavior – driving styles vary from person to person, some drivers are aggressive and some are not.
- Driver Behavior – deviating from the pre-defined route to save time (ex. driving in reverse direction to avoid a U-turn, skipping signals, driving through service road, etc.).
- Vehicle Type and Condition – acceleration, deceleration, and maneuverability of different vehicle types and condition of the vehicle.
- Delay in the Previous Trips – the delay in the previous trips has a cascading effect.
- Temporary change in road condition. Ex. road works, placement of barricades, etc.
- Weather – Rain vs. Shine

Factors that Affects Real-time Data Collection for Monitoring:

- Data Connectivity – Dark spots, low data connectivity
- Device Quality – Incorrect GPS coordinates due to device quality
- Sabotage – switching off the hardware, using fake GPS, etc.