

Traffic Demand Modelling



Transport modelling has until now used more established methods to gather data on people's movements. These have typically involved people's surveys about travel patterns. Despite limitations on survey scale and sample biases, these methods are accepted as the state of practice. However, these methods are becoming increasingly expensive and time consuming to conduct. Sample rates are very low and accuracy of analysis is subject to survey's quality.



The modern transport modelers have started using GPS data available from devices fitted on various vehicles moving across the city. This data provides better picture of traffic patterns. The limitation of this method lies in not being able to provide traffic density information and the pattern of people's movement.



There is huge potential to club output of both these methods at a much lower cost (both monetary and time bound) through the use of Mobile Network Data (MND) to derive an understanding of the movements of travelers and creating a city's traffic density map.

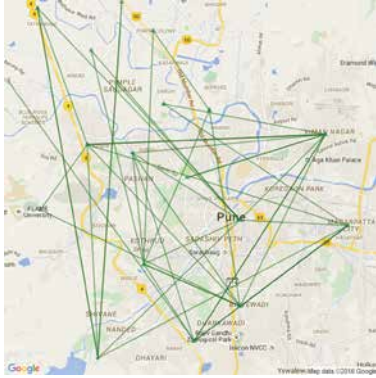
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Use Cases

1. ORIGIN-DESTINATION ANALYSIS

Origin and destination analysis provides insights from top starting point throughout the day for major journeys and top ending point where people reach. If public transport availability is aligned with these demand, people prefer not to take their personal vehicles.



Top Origin Zones

2. MOVEMENT AROUND A KEY HUB

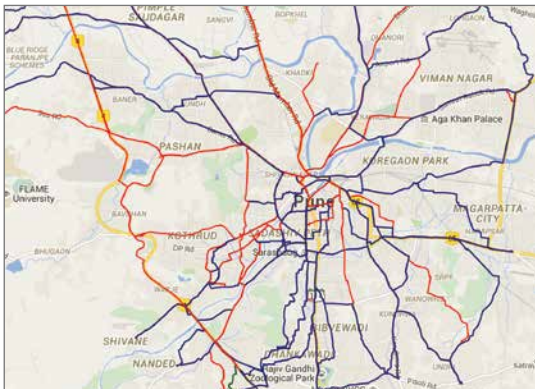
To determine the demand in and around a major landmark, for e.g. Railway Station. Based on the demand multiple mode of transport including buses, rickshaws, taxis, walkways etc. can be planned at the landmark.



6.45am

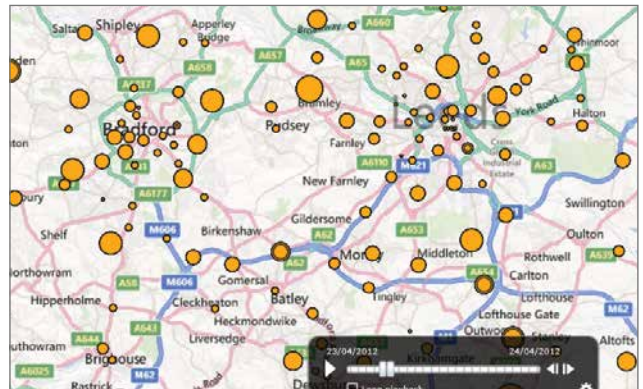
3. CONGESTION INSIGHTS

To monitor congestion in selected area at various points of time in the day to plan diversions, signal timings, public transport bus availability etc. For e.g. City area to IT Park.



4. ON ROAD POPULATION OVER TIME

To monitor road population throughout the day. For e.g. Population changes in an important traffic junction during the day.



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