Deep Tech Usage in IBI's ITMS

1

ATCC (Automatic Traffic Counting & Classification)

ATCC Sensors

- IBI's Proprietary Model of **Thermal Sensors** to suit all weather and lighting conditions

- Performance is Proven with real time implementation and operation

- One Camera can cover two lanes and up to 200 m

- User friendly interface to customize sensor settings

- **Quick Installation**

Vehicle Counting & Queue Detection

- Greater Accuracy in **all weather / Climatic** conditions thermal imagery
- **BIGDATA** generated by Optical Classification Algorithms which have **self learning techniques**
- **Machine Learning** Algorithms for Counting & Classification of Vehicles with over **95%** Accuracy
- Queue length detection using **Artificial Intelligence Algorithms**
- Captures Various Traffic Engineering Parameters
  (Volume, Density, Headway, Gap, PCU, etc.)
- Central monitoring and **GIS based User Interface** to monitor congestion and black spots

Vehicle Counting & Queue Detection
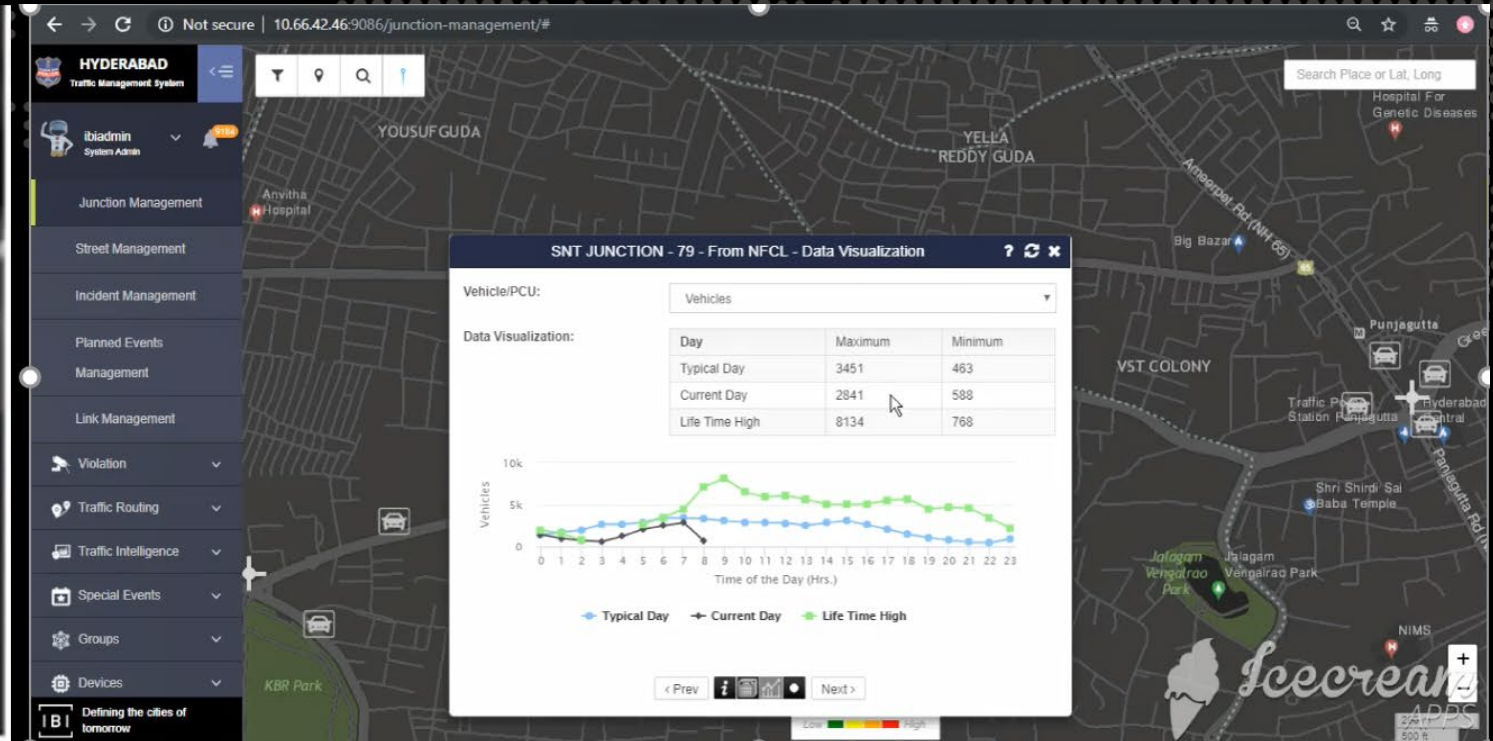
SMS & Email Alerts with Intelligent Automatic Response Plan Engine using Configurable Template based Rules - Engine

Advanced Analytics & Visualizations for Deeper Insights with high capability of Filtering to the micro level details…
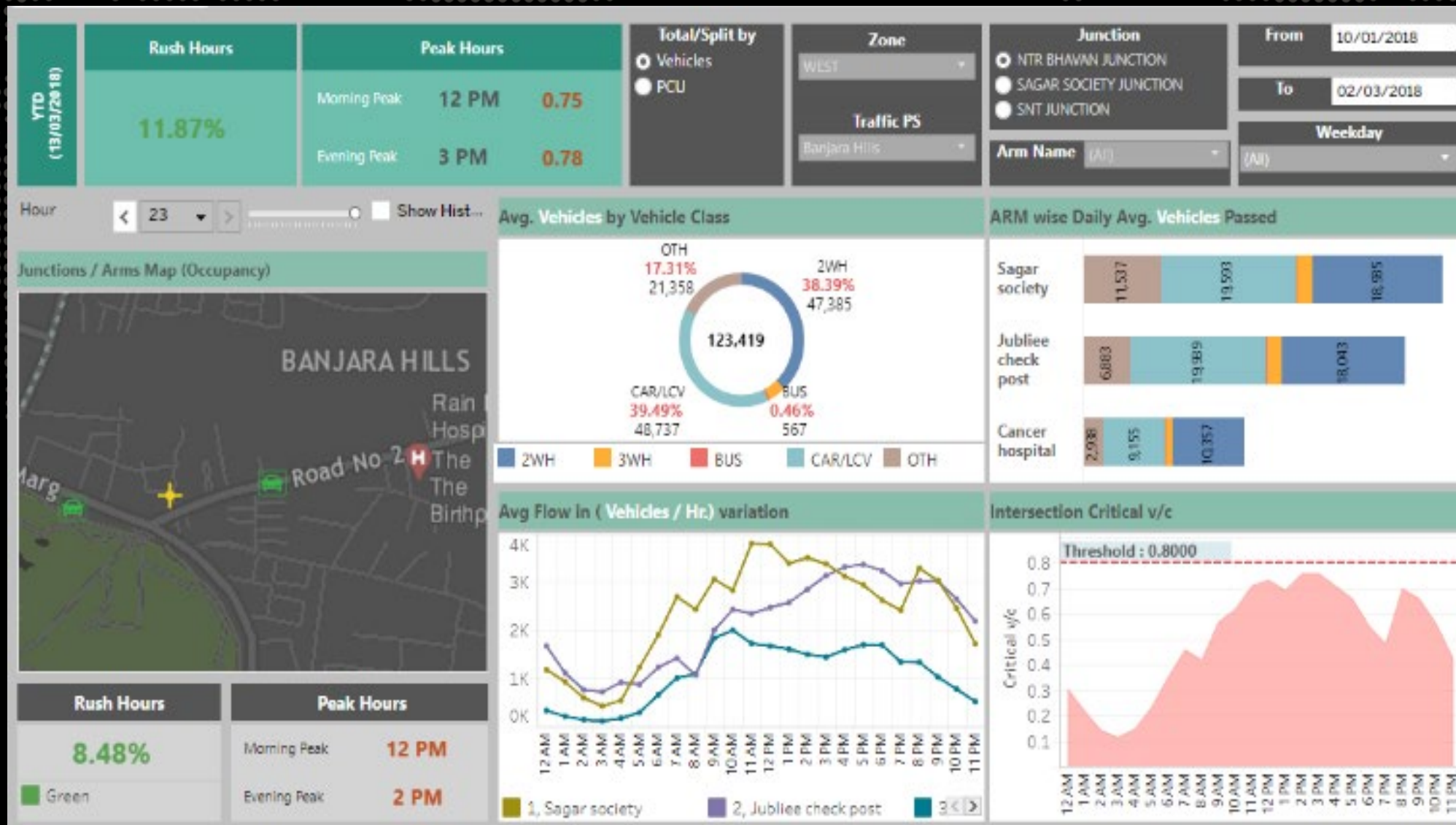
Advanced Analytics & Visualizations for Deeper Insights which uses Traffic conditions & Advanced Statistics ...
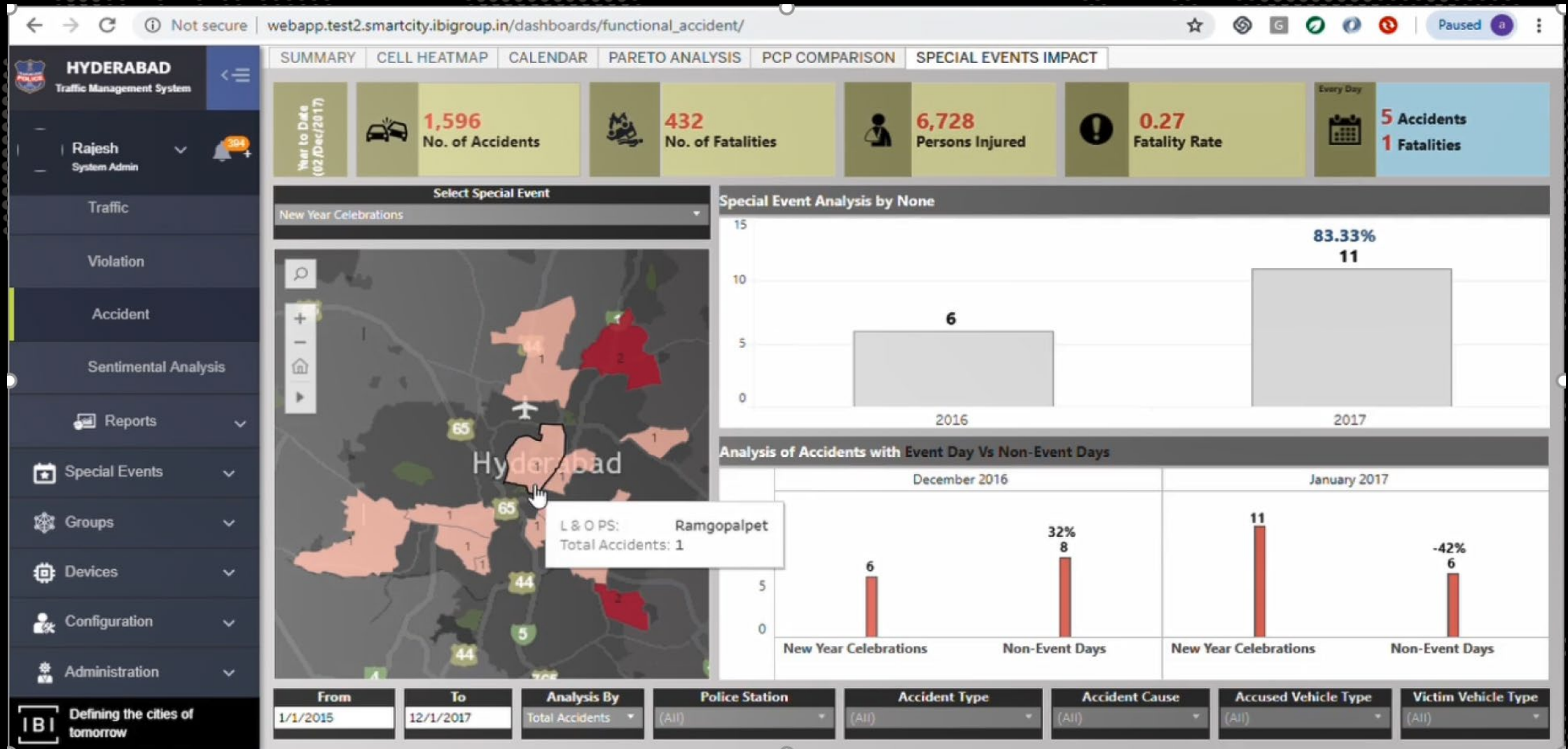
2

Intelligent Routing Algorithms based on Time, Accident & Crime data sets

IBI

Intelligent Routing Algorithms for based on Time, Accident & Crimes on routes and Advanced Analytical Algorithms

IBI's ITMS routing algorithms works intelligently to suggest the best route from origin to destination not only just by travel time but also the crime rates and accidents intensities on the routes.

Optimal Intelligent Routing based on Distance

Optimal Intelligent Routing based on Historic up-to-date Accidents Data

Optimal Intelligent Routing based on Historic up-to-date Crime Data

Optimal Intelligent Routing based on Weighted Average of Historic Accident & Crime Data

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3

Social Media Sentimental Analysis to Capture the mood/ satisfaction of Road users

Social Media Sentimental Analysis to Capture the mood/ satisfaction of road users

IBI 's ITMS platform has several built-in libraries and simple API's to perform NLP tasks. It is used to determine whether a sentiment is positive, negative or neutral based on the type of words used in comments made by the users in natural language.

Social Media Sentimental Analysis to Capture the mood/satisfaction of road users
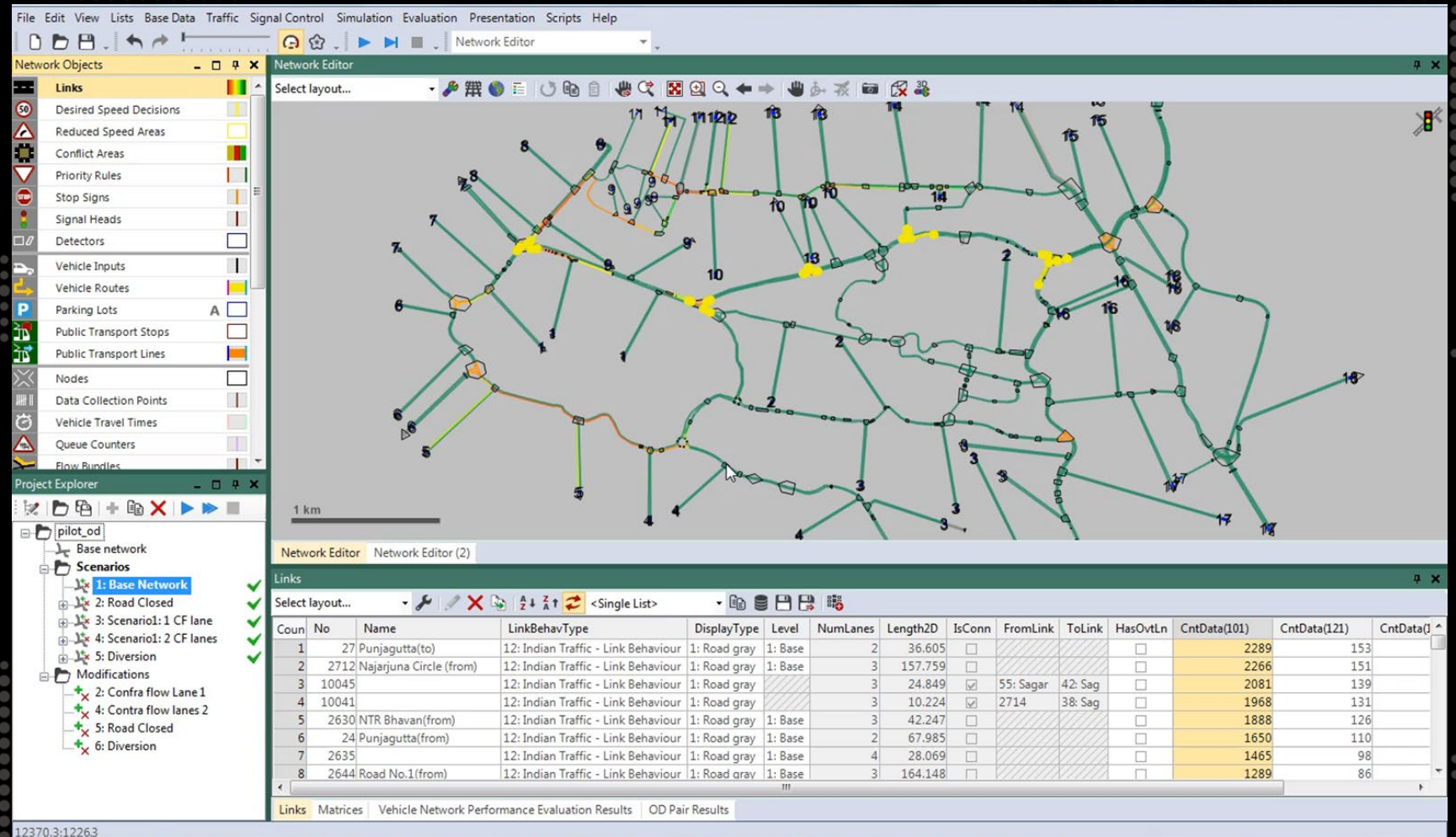
4

Traffic Simulation in Planning for Traffic Management during Special Events using Stochastic Traffic Modelling

Traffic Simulation in Planning for Traffic Management during Special Events

- Simulation of Traffic using traffic behavioral models proven in traffic engineering for valuation of alternative traffic management scenarios and choosing the best to minimize impact.

- Usage of Stochastic Algorithms.

- Advanced guidance to impacting road users on alternative routes in advance.

- It again uses the data from ATCC sensors to calibrate for present conditions

Thank you!

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