TATWEER

The Smart Safe City Center is a turnkey solution designed to ensure public safety and security especially for the road network and apply the international standards for traffic & transportation agencies, the system receives information from several data sources and then analyze & process this data through centralized AI-based platform, the solution enables operation center to manages crises and disasters, as well as improves the operational capacity and efficiency using advanced modules that adopt Artificial Intelligence systems, big data analytics and events predictions for operation support & decision-making.

SMART SAFE CITY CENTER

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Smart Safe City
Center

The solution is based on a centralized platform and includes different modules to improve the operational capacity and efficiency such as

Truck Permits · Smart Officer · Traffic Density · Patrols Distribution · Dangerous Violators · KPI & Reports · Wanted & Expired Vehicles · Safe City Index · Assets Management · Smart Awareness · Fleet Management · Crash Data Analysis · Accident Reconstruction · Road Events monitoring & Control

Integrated
Platform

Smart safe city solution designed as event-driven architecture based on a centralized platform that ingests massive data volumes from roads and related sensors through a scalable services hub able to receive millions of transactions and data feeds in real-time aims to provide a unified, high-throughput, low-latency platform to meet high-availability and scalability requirements.

The platform generates intelligent SOPs for emergency response through operators in the operation center and provides and smart decision support system.

Traffic Density

Traffic density is complete information and reporting module for analyzing the traffic volumes across the city and over 24 hours long each day. The system records the cars and trucks' passages by each traffic-counter point, the passage date and time, and the vehicle speed. Then the system provides a set of comprehensive reports in the traffic volumes each hour at each section that can be used as input for further traffic analysis. A GIS dashboard displays the traffic volumes as they change from time to time using animated infographics.

Patrols Distribution

The Patrol Cars Allocation aims to optimize the locations of Patrol Cars by minimizing the response time in the selected area of operations. The system is integrated with the incident response centers and continuously analyzing the reported incidents, their locations, concentrations, severity, and pattern of occurrence. Also, it's integrated with the real-time locations of Patrol cars and the live traffic conditions on the road network. This enables the system to suggest the optimal locations for Police Cars to achieve the best response time possible to the predicted incidents based on AI algorithms.

Reporting & KPI's

The system generates a wide range of reports that covers virtually every detail of a safe city giving a high altitude view to the decision-makers to be able to see through complex and unstructured data. The system also constantly analyzing data, looking for patterns and relations thus can give us a very useful root cause analysis view for traffic issues.

Assets Management

The system aims to provide an automated tool to continuously track, in real-time, the operational status of the various road assets (fixed roadside units, Radars, VMS, Counters, ANPR cameras, etc), and automating their preventive and corrective maintenance jobs. This system is a native mobile GIS-Based app that allows a field-based workforce to improve their performance and keep the full history of road assets.

Emergency Events Monitoring & Control

This system is integrated with the weather sensors that are deployed across the city; these sensors are constantly feeding the system with the visibility conditions of the road network. When the system detects dangerously low visibility conditions due to fog or sandstorms in a particular road network section, the system automatically triggers its measures by reducing the roadside speed units to a maximum safe speed relative to the severity of the weather conditions. The system is also integrated with different kinds of alerting systems to communicate the speed reduction with road users via SMS, Electronic VMS boards on smart towers, Electronic Speed Signs, and Colored Light and Siren Radars.

Smart Officer

The Smart Officer is a smart application that aims to facilitate the daily operations and tasks of police officers. The system automates tasks suck as traffic enforcement & violations processing accurately and effectively, and utilizes the time and efforts of police officers/inspectors.
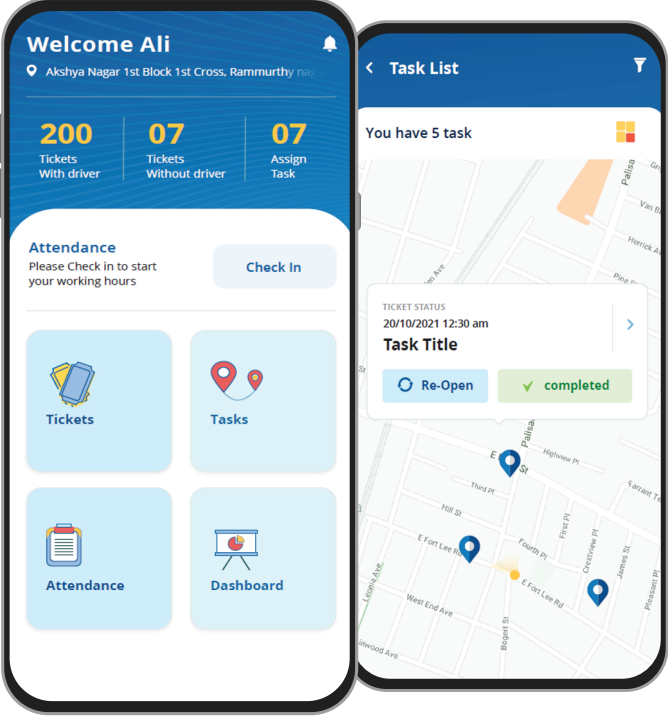
Truck Permits Validations

The objective of this system is to identify the Trucks on the road which does not have movement permits. The truck plates are being recognized through various data sources ANPR module installed in the gantries, red-light cameras, CCTV cameras with high accuracy, the system can read all plates on the road & integrate the extracted data with UTS (Unified Traffic System). The system identifies the movement of the truck without a permit in real-time and providing alerts and advising operators with the right SOP's to handle that issues.

Dangerous Violators

One of the Safe City Platform goals is to make the streets safer by identifying the potentially dangerous behavior drivers whose driving habits and style may cause harm to the majority of road users. The system can analyze the drivers and vehicles and assigns a relative rank to each driver, this rank is determined by his traffic violations history. The higher driver's rank the more dangerous driver becomes. The system also allows targeting the identified groups of dangerous drivers with different configurable sets of actions and smart awareness through different channels.

Wanted Vehicles Identification

The objective of wanted vehicles is to identify the vehicles which have critical issues that might affect road safety, the vehicles plates are being recognized through a reliable ANPR module installed in the gantries with high accuracy, the system can read all vehicle plates on the highway & integrate the extracted data with Central Traffic DB in the back office then getting all wanted /expired vehicles on Real time by showing alerts and advising operators with right SOP's to handle that issues.

Accident Reporting

Accident reporting is a smart application that aims to automate and digitize the process and tasks of reporting accident scenes in the field, efficiently and effectively, increasing officers' productivity, in a shorter time, and have accurate data logging. Also, it helps for avoiding major accidents and fatalities using analytics tools in the back office.

Safe City Index

Safe City Index is a smart tool that ranks safety by using indicators across different security domains (crime, disasters, fires, traffic & road safety incidents , Social & Economic inf, etc.), it Compares safety between different zones and over time and raise safety awareness to a higher level.

Fleet Management

Fleet Management aims to manage and monitor the fleet of vehicles which includes In-vehicle monitoring equipment and telematics for vehicle conditions, vehicle location, OBD data, GPS and Sensors. The In-vehicle communications equipment transmit the information back to the Central Monitoring System and to receive configuration changes from the Central Management System through different networks such as (LTE)

Crash Data Analysis Tools

The primary objective of this module was to develop a comprehensive GIS-based traffic safety management system for traffic safety analysis and evaluation. The system utilizes a recently developed crash data collection and analysis integrated with other relevant entities' data sources to define the hotspots and countermeasures to ensure the highest traffic safety as per international standards.

Welcome Ali
Akshya Nagar 1st Block 1st Cross, Rammurthy na

200	07	07
Tickets With driver	Tickets Without driver	Assign Task

Attendance
Please Check in to start your working hours — Check In

Tickets · Tasks · Attendance · Dashboard

Task List
You have 5 task

TICKET STATUS
20/10/2021 12:30 am
Task Title
Re-Open · completed

Assets Management

Emergency Events

330 Incidents · 120 Crashes · 6 Fire Alrms
120 Crimes · 4 Detours · 12 Road Closures

Assets and Resources · Emergency Events · Weather Conditions

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